Teaching Improvisation to Orchestral Double Bass Players: Significance and Methodology

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TEACHING IMPROVISATION TO ORCHESTRAL DOUBLE BASS PLAYERS:
SIGNIFICANCE AND METHODOLOGY

By

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ABSTRACT

The purpose of this treatise is to develop a comprehensive method for teaching improvisation to orchestral double bass players in modern conservatories and music schools. In addition, this treatise will explore the current and historical significance of improvisation for contrabass string instruments in Western music. The research will prove that not only is improvisation an important part of music history, it will also greatly enhance the overall performing ability of every orchestral bassist.

The introduction will present the argument of why orchestral bassists should learn improvisation. It will be argued that improvisation is no different than any other developed musical skill, and that orchestral double bassists have all the tools necessary to pursue this art form. The first chapter will examine the role of improvisation in the history of Western art music, providing extensive evidence of its use and importance over a period of several hundred years. The second chapter will present a method for teaching improvisation, specifically to those who have no previous experience in learning it. The method is designed for use with players of all ages, although the musician must have at least a certain amount of proficiency for this system to be most effective.

Improvisation is an integral part of all Western music, past and present. This treatise is intended to provide orchestral bassists with a means to learn this art form, as well as understand its historical and current significance.
INTRODUCTION

What is improvisation? This question has been asked and answered by many, yet the definition of improvisation still seems elusive at best. The New Grove defines improvisation as “the creation of a musical work… as it is being performed,”¹ whereas Ernst Thomas Ferand describes it as “instantaneous musical expression.”² While these definitions offer some broad explanations, they do not truly define what improvisation is and how it is done. It is often thought by musicians that have never learned improvisation that it is something one inherently can or cannot do, but the truth of the matter is that improvisation is no different than any other developed musical skill. The only difference with improvisation is that instead of repeating the same note patterns as one would in playing an excerpt, players must choose when to play what specific note patterns they have assimilated into their vocabulary. Once these patterns have been absorbed, the improviser can then apply these configurations to chord structures within varying musical styles. Below is a description of this process by Dan Hearle, member of the music faculty at the University of North Texas:

[Improvisation] is a specialized form of communication within the world of music. To be able to express himself fluently, the… musician must have a good grasp of the grammar, vocabulary and structures of this language. This simply means that he must have a thorough understanding of the construction of chords and scales and a ready knowledge of their applications as resources which are available to serve his expression.³

Just as an orchestral bassist must devote many hours to learning the standard repertoire, an improvising bassist must spend many hours learning note patterns that can later be performed at will. It is also important to note that while a bassist can learn the written notes in orchestral music and then perform them, an improvising bassist must have at least a rudimentary understanding of basic music theory in order to know how and when to use note patterns when improvising. In learning these patterns, the bassist will also acquire a higher level of theoretical understanding.

Now that the definition of improvisation (pertaining to this treatise) has been established, the following question is, why should orchestral double bassists learn it? According to the National Association of Schools of Music handbook, learning improvisation is currently required for all music students at accredited institutions.\(^4\) However, this requirement does not specifically address why this skill is important.\(^5\) There are, nevertheless a number of reasons for orchestral bassists to pursue this endeavor.

To begin with, double bassists training to perform in orchestras have a number of advantages in their schooling that will make learning improvisation easier. As described earlier, improvisation is the ability to perform different musical patterns at will inside different stylistic contexts. Orchestral bassists, in addition to having a high level of technical proficiency through practice of scales and arpeggios, have a supplementary wealth of note patterns under their fingers because of the expansive symphonic repertoire. On top of learning all the notes within given orchestra parts, bassists need to essentially memorize specific solo repertoire and significant excerpts from the literature in order to win auditions for professional appointments. Alexander Hanna, Principal Bassist of the Chicago Symphony Orchestra, lists an example of repertoire typically asked for in orchestral bass auditions below:\(^6\)

I. Solo Repertoire
   a. Concerto: First movement of any standard concerto (two minutes)
   b. Bach: One movement from any of the Bach Cello Suites

II. Solo Passages from Orchestra Repertoire
   a. Ginastera: Variaciones Concertantes, Variation XI
   b. Mahler: Symphony No. 1
   c. Hadyn: Symphony No. 31, Variation No. 7
   d. Prokofiev: Lieutenant Kije
   e. Verdi: Othello, solo from Act IV

III. Orchestra Repertoire
   a. Mozart: Symphonies No. 35 and 40
   b. Beethoven: Symphonies No. 5 and 9
   c. Brahms: Symphony No. 2
   d. Mahler: Symphony No. 3
   e. Prokofiev: Romeo and Juliet, soli from movement 5
   f. Strauss, R.: Ein Heldenleben

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Given the sheer mass of note patterns and phrases needed in their vocabulary in order to prepare for this type of audition, orchestral bassists already have almost all of the necessary tools to improvise. Therefore, learning to do so is much easier than many think.

In addition, orchestral bassists should pursue improvisation because it helps with overall musicality and enhances understanding of how the language of music works. Below is a testimonial from Joseph Conyers, Assistant Principal Bassist of the Philadelphia Orchestra, wherein he describes the role of improvisation in his musical development.

When growing up, I was exposed to two major types of music: Gospel music as sung in the African American Southern Baptist tradition, and Classical music. One might normally think that these two genres of music are worlds apart, but somehow, I was able to find a connection - a way to link these two seemingly different types of repertoire together. I would marvel at the soul and the passion many of the choirs, individual vocalists, and even pastors would pour into their music making. It was never the same, always using improvisational aspects. Sometimes singers would hold a note here for emphasis -- sometimes a note there. The bending of pitches one way, jumping up to another note in another way - repeating notes in a rhythmic emphatic fashion -- that to me told the story. And oddly enough, while many of my colleagues might think it strange, I saw those same opportunities in classical music. At the end of the day, the notes in classical music are just notes on a page -- and unfortunately, many in the field play them this way. Instead, I see each note as an opportunity. That philosophy coupled with the basics of harmonic progression and voice leading is what made the LANGUAGE of music making make sense to me. The notes on the page are simply a guide for us to bring alive the soul of the composer’s creation. When classical music is infused with many of these improvisatory techniques, not unlike any gospel singer, I feel that this opens the way to performances that not only impress but performances that speak to the souls of individuals in the audience.  

As stated above, understanding the language of music and how it can be changed or improvised upon allows the performer to create a more musical experience for himself and for the audience. Becoming a master improviser should not necessarily be the goal of orchestral bassists; they should instead use the art form as a means to better understand the music being played and thus perform it better themselves.

Mr. Conyers also mentions how improvisation taught him to see every note as an opportunity to play musically. This is especially important because this ability to perform written patterns with a sense of musicality is essential for success in professional orchestra

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7 Joseph Conyers, email message to author, November 22, 2012.
auditions. Below is an excerpt of an interview with double bassist Brian Johnson after winning a section bass position with the Kansas City Symphony Orchestra:

Play musically. This is the step that makes a player stand out in the final round. I try to play with many different tone colors, large musical phrases, attention to styles, etc. This is the “finishing touches” stage in my preparation… In a nutshell, my audition preparation is to make sure I’m playing with great intonation, rhythm, sound, strokes, and musicianship. These seem like obvious concepts, but they are frequently overlooked or poorly executed.  

Jory Herman, section bassist with the San Diego Symphony, conveys parallel sentiments of the audition process below:

Finally, a crucial thing to think about is… practicing the art of performing under pressure. Your heart rate is soaring, your mouth is dry, your hands are cold, the acoustic is foreign to you… and it’s your time to shine. If you have included this in your preparation, these feelings have become all too familiar to you. Then, in that next split second, learn to clear your mind and just play Music.

Finally, Ted Botsford, the Assistant Principal Bassist for the Oregon Symphony, reinforces the previous statements, as well as supporting the idea that individuality is vital in winning an orchestra job. His account is below:

Since so many unknown variables impact an audition, I decided it was more important to focus on what I could control – my own playing – than to worry about the other auditionees, the weather, or how the committee was feeling at the end of a long day. Essentially I had to redefine “audition success” by changing my goals. I stopped trying to appease the committee to win a job and worked more on mastering my anxiety to more accurately represent myself as a musician. I had a much more fulfilling experience when I realized that an audition is not a skills test but an opportunity for self-expression.

Each bassist cites the utmost importance of musicality and self-expression as a means to win professional orchestra auditions. Learning improvisation is one effective way to access this musicality, primarily because it will dramatically increase the bassist’s overall understanding of the harmonic language of Western music.

Furthermore, the act of learning improvisation will improve a bassist’s musicality in all areas of his or her playing. Below is a statement from Kevin Mauldin, Principal Bassist of the Naples Philharmonic Orchestra, where he describes how improvisation aided him in his musical education.

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9 Turner, 45.
I was raised in Memphis and exposed to a lot of music growing up, including Blues, Soul, Funk, Rhythm & Blues, Gospel and Country with a dose of Classical music thrown in. I first learned to improvise by imitating the various electric bass players, including Verdine White, Larry Graham, Stanley Clarke and Jaco Pastorius among others. I would first learn a solo or a lick from a recording, and proceed to play it in all keys, if possible, then invert any arpeggios, scales, or new ideas that I encountered. Ray Brown, Ron Carter, and Neils Orsted Pedersen were some of my favorite jazz players and I learned a lot by transcribing solos and walking lines from their recordings. I think that having a good understanding of chord function and knowing how to create a melody from scratch is essential for a musician wanting to perform in any style. I recommend learning a melody and doing some of what I described before: inverting the tune, altering the rhythm, moving it to other keys and modes to expand the possibilities of the creative process. The main thing for a Classical musician is to realize is that when improvising, you become a composer on the spot, and simplicity can be a very powerful means of expression.  

The important point in the above testimonial is where Mr. Mauldin explains specifically how the process of learning improvisation was integral not just in his orchestral playing, but in his musical development overall. It is this process that can enhance the musicality of double bassists, simultaneously improving both their orchestral playing and their overall musicianship.

In short, the goal of this treatise is to provide orchestral double bass players with a method for learning improvisation while also explaining its historical significance. Once the historical relevance of learning improvisation has been established, the bassist will then be shown ways to learn improvisatory patterns and subsequently incorporate them into his or her own playing. Just as learning scales and arpeggios enable a double bassists to learn the repertoire and subsequently make music, internalizing specific note sequences will allow the bassist to perform the patterns at will, thus making music through improvisation.

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11 Kevin Mauldin, email message to author, November 27, 2012.
CHAPTER ONE
HISTORY OF IMPROVISATION IN WESTERN ART MUSIC

Western music has a long and rich history in the art of improvisation. It is only in recent years that this practice has been separated from orchestral and chamber music works. This chapter will provide an overview of this information as it specifically relates to the double bass, examining history throughout the following time periods: the Baroque Era, the Classical Era, Romanticism, and the Twentieth Century. This will provide a foundation for the historical importance of improvisation, as well as a background to aid the teacher and performer in learning the art form itself.

This historical overview will begin with the Baroque Era because it was during this time that one of the first true versions of the double bass emerged. Known as the violone, this instrument served the role of the contrabass during the seventeenth and eighteenth centuries.\(^\text{12}\) This claim is supported by scholar Raymond Elgar, who states that “the Violone is without doubt the true Double Bass of the early viol family and it is from this instrument the Double Bass in present use was developed.”\(^\text{13}\)

The Baroque Era

It is always difficult to define the time period of an artistic movement, especially since there is almost always overlap from era to era. Nevertheless, musicologists generally agree that the Baroque Period in music took place during the seventeenth and eighteenth centuries, ending around the time of the death of J.S. Bach. According to Joseph Kerman, “music from the period of approximately 1600 to 1750 is usually referred to as “Baroque,” a term borrowed from art history.”\(^\text{14}\) For the purposes of this treatise, this will be the time frame for the discussion of the use of improvisation.

Improvisation played a key role in the development and performance of Baroque music. The following is a description of Baroque improvisation by Derek Bailey:

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In all styles of baroque, whatever period, whatever country, improvisation was always present, integrated into both the melodic and harmonic fabric of the music. To decorate, to supplement, to vary to embellish, to improve, as it was often called, was an accepted part of being a performing musician. He would have at his fingertips many standard embellishments and graces, frequent abbreviated when written, or represented by signs, and he would be expected to interpret them with a certain freedom. Couperin: “What we write is different from what we play.”

Another important consideration is that in this time period, art music began the transition moving from primarily vocal to instrumental. Composers began to assign parts to specific instruments, as well as provide vocal works (written a cappella in past centuries) with instrumental accompaniment. This is significant because this era furthered the use of improvisation for instrumentalists. Two of the most common practices that were used for improvisation during the Baroque were the basso continuo and ornamentation/embellishment.

**The Basso Continuo**

Often called the “era of the through-bass,” the basso continuo affected the vast majority of art music in the Baroque period. The following is a brief description of basso continuo by David Schulenberg:

Players found it helpful to add numbers and other symbols, known as figures, above or below the bass line to eliminate some of the ambiguities that inevitably rose as to the intended harmony. The resulting form of notation is known as figured bass. The symbols of the figured bass represent upper voices that a player improvises above the bass line. The improvisatory addition of those upper voices is the realization of the figured bass.

Virtually all those writing music in this period used this method of musical shorthand for realizing the chordal accompaniment. Composers including, but not limited to J.S. Bach, Antonio Vivaldi, Heinrich Schütz, Claudio Monteverdi, Michael Praetorius, Georg Philipp Telemann, Johann Vierdanck, George Frederick Handel, Giovanni Battista Buonamente, Andreas Hammerschmidt and Arcangelo Corelli made frequent use of the bass continuo system.

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17 Bailey, 22.
18 Schulenberg, 45.
Since this technique was used often throughout the Baroque, it became a necessary skill for chordal instrumentalists to learn to realize the figured bass instantly while performing. In many ways this is the predecessor of modern jazz lead-sheet notation, which provides chord symbols for the rhythm section players to realize. Continuo players would only see the bass line, with a series of numbers under the notes indicating what voices should be included in the chord realization (Ex. 1.1).

Example 1.1. Continuo line from J.S. Bach, *Easter Oratorio, BWV 249*, mm 42-46, 2\(^{\text{rd}}\) mvt.

In practice, what the keyboard (organo) player would actually play would look something like this:

Example 1.2. Dorothy Payne’s chord realization of J.S. Bach, *Easter Oratorio, BWV 249*, mm 42-46, 2\(^{\text{rd}}\) mvt.

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Although figured bass notation could be fairly specific in terms of voicing, it was often up to the musician to voice the chords appropriately and to do so almost instantaneously. Thus, the improvisation skills required by a continuo player needed to be very advanced in order for them to find work as a professional musician during this time period.

While this thorough understanding of theory was not quite as necessary for bassists, cellists, or bassoonists playing only the bass line, it was nevertheless important for them to be aware of their role in the overall musical context. A comprehensive understanding of the chord realization symbols would be a tremendous asset for bassists in emphasizing certain chord tones within the written lines.

**Ornamentation and Embellishment**

Throughout the Baroque, different styles of melodic decoration became standard practice for performers. Furthermore, it became customary in this time period to notate many of these ornaments, which had in the past “been left for performers to improvise.”\(^{21}\) This practice shows two things: one, how important improvisation was to the development of the music, and two, that composers were beginning to eliminate improvisatory aspects of the music by assuming more control of their compositions.

Nevertheless, improvisation was still in use during this era and these ornaments and embellishments prove it. In the words of C.P.E. Bach, “embellishments provide opportunities for fine performance as well as much of its subject matter. They improve mediocre compositions. Without them the best melody is empty and ineffective, the clearest content clouded.”\(^{22}\) The ornamentations that will be discussed are described as “essential” by Phillip Eugene Rush, which means that they can be written using some type of instructional symbol or sign.\(^{23}\) Also, these ornaments were frequently used during the Baroque period and are still common practice to this day. These essential ornaments are appoggiaturas, trills, mordents, turns, and vibrato.\(^{24}\) A musical example of each ornament is pictured in the following pages.

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\(^{21}\) Schulenberg, 43.


\(^{24}\) Rush, 5-16.

Example 1.4. Giuseppe Tartini, trills with simple and double grace notes.

Example 1.5. Francois Couperin, *L’Arte de toucher le clavecin* (1716), single and double mordents with a lower auxiliary tone.


Example 1.7. Turns: simple turn, snap turn, and ascending slurred turn.

Although these ornaments are now typically notated in editions of seventeenth and eighteenth century music, it is important to observe that these embellishments began as improvisations by performers. The notation of these ornaments, used by many composers, was the exception rather than the rule for most of the era.\(^{25}\)

**The Classical Era**

Despite the eighteenth century bringing on a new period of musical ideas, many improvisatory principles of the Baroque were in use during the Classical period. Indeed, it is impossible to clearly distinguish an end to the Baroque and the beginning of the Classical, thus creating much overlap between the styles. This is evident in a number of works by different composers, one example being the Double Bass Concerto of Karl Ditters von Dittersdorf. Considered a “leading figure of the Viennese Classical school,” Dittersdorf composed a number of works for orchestra, voice, and various chamber instruments.\(^{26}\) Written in 1767, his Double Bass Concerto, while clearly Classical in nature, displayed a number of ornaments that were common in the Baroque (Ex. 1.9).

\(^{25}\) Rush, 17.

Here, the line written for solo double bass clearly employs the use of the descending appoggiatura, one of the most common of the Baroque ornaments. It is also important to note that Tobias Glöckler, the editor of this modern edition, has added ornaments and articulations that “would have been considered self-evident at the time.” This further proves the importance of improvised ornaments and embellishments throughout eighteenth century.

Another, albeit less well-known, composer of the Classical period who employed Baroque ornaments was double bass virtuoso Domenico Dragonetti. While known primarily for his bass playing, Dragonetti composed a number of works including 31 string quintets, 6 string quartets, 9 concertos, and numerous other chamber works. Below is an excerpt from his *Six Waltzes for Double Bass Alone*.


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The turn, notated in the eighth measure, would be executed in this manner:  

![Example of turn notation]

Example 1.11. Domenico Dragonetti, *Six Waltzes for Double Bass Alone*, mm 16-17, 4th mvt, notated turn.

Again, this example shows how ornaments established in the Baroque were in constant use throughout the Classical period, especially considering that these waltzes were most likely composed during the early nineteenth century.  

While the use of ornamentation remained largely unchanged, one of the most important new improvisatory developments of the Classical era was the cadenza. Derived from the Italian word for “cadence,” the cadenza became a staple of the period, particularly within the concerto genre. Theorist Daniel Gottlob Türk describes the origin of the cadenza below:

In former times, one added small embellishments before cadences (Tonschliissen), which did not require the suspension of meter ... These so-called figured cadenzas were evidently pleasing, so the passages were expanded, and were no longer tied so strictly to the meter. Those accompanying were pleased to yield and to wait, until finally, little by little, our embellished cadenzas came about. Their origin can be placed between the years 1710 to 1716. Their native land is probably Italy.

It is important to note that these “expanded” episodes of embellishment originally took place simply on a held dominant-seventh pedal. One earlier indication of a cadenza in the Baroque was the use of the term “Tasto solo” in figured bass parts. This would instruct the continuo player to play only the bass note and not the chord realization, thus leaving the harmony open for the soloist to improvise.

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30 Dragonetti, 4.
33 Türk, 309.
As the cadenza “gained the status of a performance tradition,” the music preceding it also became standardized.\textsuperscript{35} Typically the accompaniment would play an elaborate cadence ending with a held 6/4 chord followed by the soloist playing an unaccompanied cadenza. When the soloist was ending the improvised cadenza, he or she would play a trill, usually on the second scale-degree while the accompaniment held a dominant-seventh chord. The soloist would then resolve the second to the tonic and the orchestral tutti would commence (Ex. 1.12).\textsuperscript{36}

![Example 1.12. Karl Dtters von Dittersdorf, Double Bass Concerto, Krebs 172, mm 130-135, 1st mxt., held 6/4 chord before improvised cadenza.](image)

As described above, the soloist would play a figure over a dominant-seventh chord the end of the cadenza as a signal to proceed to the end of the movement.\textsuperscript{37}

In addition to cadenzas, there was another cadential embellishment used throughout the period known as \textit{Eingänge}. An \textit{Eingang}, or lead-in, is “a short improvisatory passage that leads into a statement of thematic material… most frequently found in the works of Classical composers.”\textsuperscript{38} Although not all the time, they were usually “brief and non-thematic.”\textsuperscript{39} These \textit{Eingänge} could also “occur anywhere in a movement [to] serve as an introduction to an important theme.”\textsuperscript{40} While these brief instrumental passages were sometimes written out, they were usually not notated, thus having to be improvised by the performer. In these scenarios, the

\begin{footnotes}
\item[35] Swain, 31.
\item[36] Swain, 29.
\item[39] Neumann, 264.
\item[40] Ibid, 264.
\end{footnotes}
Eingang would be indicated by a fermata. One example signaling the potential use of an Eingang can be found in Domenico Dragonetti’s Quintet No. 18 in C Major (Ex. 1.13).


After the fermata, the primary melody of the movement would commence, thus signaling a clear reprise to the main theme. Although not expressly notated, it is implied that an Eingang be placed in this fermata since it occurs before a reprise to the main theme of the movement. John Feeney, Principal Bassist of the Orchestra of St. Lukes, executes the following improvisation over this fermata when performing this work with the Loma Mar Quartet (Ex. 1.14).


This example shows a brief passage played over the dominant chord, both virtuosic and non-related to any of the main themes of the movement. Also, it relates to the standard cadenzas of the period in that it is absent of any discernable meter. This shows that the improvised Eingang was an essential element to the music of the time, and that improvisation was central in the Classical display of virtuosity.

The Romantic Era

At the dawn of the nineteenth century, there were multiple factors that directly contributed to the declining usage of improvisation in Western art music. While there are many reasons to speculate why this occurred, the one that will be discussed in this chapter is composers’ exertion of total control over their works. Although this reason alone cannot totally account for the decrease in use of improvisation, it served as one of the primary catalysts of its diminution. Below is a statement by Phillip Rush describing this phenomenon:

As composers began to exert more control over previously improvised elements of their compositions, many of the conventions of improvisation began to invade composition. The popularity of works that pushed the boundaries of form and structure, for example those works entitled Prelude, Fantasy, or Impromptu, as well as the introduction of recitative-like passages and cadenzas in solo instrumental music, clouded the distinction between composition and improvisation still further.42

While many nineteenth-century composers, such as Liszt, Brahms, and Hummel still used improvisation as part of their compositional process, it became less of a necessity for performers in that every detail of what they played was dictated to them in the sheet music.43 Many composers contributed to this trend, and three that were particularly influential were Ludwig van Beethoven, Robert Schumann, and Frederick Chopin.

In addition to his composing and performing, Beethoven was an absolutely masterful improviser. According to William Kinderman, “Beethoven’s ability to improvise at the keyboard was regarded as extraordinary and was much commented on by his contemporaries.”44 His spontaneous compositions would impress audiences and composers alike, with his “ability to transform any materials on hand into artistic coinage.”45 In fact, during many of his performing tours, Beethoven would have others perform his composed works while he would perform improvisations for the audience. According to an account by Alexander Thayer, Beethoven performed on a tour with student Ferdinand Ries where Ries would perform Beethoven’s concerti and other works, while Beethoven himself would “conduct and improvise.”46

42 Rush, 31.
45 Kinderman, 297.
Despite his improvisational abilities, Beethoven’s sentiments on others’ improvising were more conservative, and changed dramatically throughout his life. It appears that during his earlier years, Beethoven felt it was not only appropriate, but also necessary for performers to provide their own cadenzas, as long as they were composed beforehand. According to Swain, “if a cadenza were to be composed, Beethoven would not only agree to one not written by himself, but insist that it be composed by the soloist.”\(^47\) This shows that Beethoven supported some improvisational freedom, but clearly did not want it to become too excessive.

Nevertheless, Beethoven’s willingness to allow performers’ freedom changed dramatically in a span of only five years. In 1809, he wrote his final concerto (The “Emperor”), and in the manuscript it explicitly says: “Do not make a cadenza here, but play immediately the following.”\(^48\) In five short years, Beethoven made the dramatic shift from enabling improvisatory freedom to absolutely denying it. Although there are a number of reasons as to why this could have happened, the most obvious is Beethoven’s increasing deafness. The following is a description of this occurrence by Kinderman:

> Since he could no longer present concertos himself, he seized control as composer over the cadenzas, which in the Fifth Concerto are notated directly into the score. For this reason, the opportunity for improvisation is curtailed, and Beethoven’s decision to write out cadenzas for the earlier concertos at this time might be taken as further evidence of a ‘predetermination of structural elements’.\(^49\)

This notion is further supported by the fact that the number of Beethoven’s compositional sketches increased dramatically after 1809, and continued to do so until the end of his life.\(^50\)

Robert Schumann, like Beethoven, continued the trend of assuming total control over his compositional works. Similar to his contemporaries, he greatly valued spontaneity in works, but expressly felt that this impulsiveness needed to be controlled in order to create a masterful piece of music. Below is advice he provided to young composers in the *New Journal for Music* in 1844:

\(^{47}\) Swain, 46.  
\(^{48}\) Ibid, 45.  
\(^{49}\) Kinderman, 307.  
\(^{50}\) Ibid, 302.
If heaven has gifted you with a lively imagination, you will often, in lonely hours, sit as though spellbound at the piano-forte, seeking to express your inner feelings in harmonies, and you may find yourself mysteriously drawn into a magic circle proportionate to the degree to which the realm of harmony is still vague to you. These are the happiest hours of youth. But beware of losing yourself too often in a talent that will lead you to waste strength and time on shadowy pictures. You will only obtain master of form and the power of clear construction by firm strokes of the pen. Therefore, write more often than improvise.\textsuperscript{51}

This statement clearly illustrates that while Schumann saw improvisation as important, it was merely a tool in helping the composer to enhance his or her written works. As he so explicitly notes, “write more often than improvise.”

Similarly, Frederick Chopin had analogous inclinations concerning improvisation. As a performer, he often “improvised waltzes all night for his close circle of friends, and he later notated some of the more interesting results of his on-the-spot compositional processes.”\textsuperscript{52} It would appear though that these extemporations were only exposed to small groups of people, and that the execution of improvisation only served Chopin in his written compositional method.\textsuperscript{53} This is further evidence that while improvisation existed during the nineteenth century; it served primarily to aid the process of written composition.

It is important to note that during the Romantic Era, improvisation was still very much in existence. Indeed, pianist Carl Czerny wrote an instructional treatise on the subject in 1829.\textsuperscript{54} Nevertheless it became more common for composers to write all the music while performers played what was written for them, thus rendering improvisation a less-necessary art form for performers in the nineteenth century.

\textsuperscript{52} Hatten, 282.
\textsuperscript{53} Ibid, 282.
The Twentieth Century

The twentieth century brought about some of the most drastic changes in Western music seen in hundreds of years, particularly in harmonic structure. Certain composers began to abandon common-practice theoretical ideas of dominant-to-tonic construction, and in some ways pursued music with barely any traditional elements of compositional makeup, e.g. harmony, rhythm, etc. Because of the vast amounts of new types of music introduced in this time period, this treatise will focus on the use of improvisation in Western, common-practice style music written for double bass throughout the era.

Being greatly influenced by composers of the nineteenth century, many twentieth-century composers continued to exert total control over their written works. However, some composers began to re-introduce elements of improvisation into their pieces, allowing the performer some compositional and improvisatory freedom within the organized compositions. One composer who has frequently used elements of improvisation in his structured works is double bassist Frank Proto. Born in Brooklyn, New York, Proto attended the Manhattan School of Music where he studied with bass virtuoso David Walter. After his graduation in 1963, he worked as a freelance double bassist prior to joining the Cincinnati Symphony in 1966. While performing with the symphony, he also began to compose and arrange for the ensemble, becoming the Composer-in-Residence in 1972. Since then he has composed numerous works for chamber ensembles and orchestra, and has also greatly expanded the solo and chamber music written specifically for double bass players.\(^{55}\)

As a freelance musician in New York during the 1960’s, Proto played in numerous ensembles, including orchestras, chamber orchestras, Broadway pit orchestras, and jazz groups. His versatility as a performer undoubtedly influenced his composing, specifically in that he incorporates elements and sections of improvisation into highly organized musical works. One example of this can be found in the third movement of the *Sonata 1963 for Double Bass and Piano*, his very first composition (Ex. 1.15).


As seen above, Proto instructs the double bass soloist to “ad lib,” the shorthand for the Latin “ad libitum,” meaning “at one’s pleasure.” In musical terms, Proto is telling the soloist to take liberties with the passage, specifically with the rhythm. Although a short example, it clearly shows how Proto wants the player of this work to have certain freedoms when performing it.

While Proto maintained compositional control in his earlier works, he began to allow more improvisatory freedom in later years. An example of this can be found in the third movement of his *Concerto for Bass and Orchestra*, written in 1969 and premiered with the Cincinnati Symphony in 1970:


Here, Proto provides a twelve-tone row for the bass soloist to use in improvisation during an unaccompanied cadenza. This example shows a mixture of traditional and modern views on cadenza performance in that the soloist is given freedom to improvise, but given specific guidelines within to do so.
In subsequent years, Proto began to give soloists performing his works sections of total improvisatory freedom. Within the piece, he would provide a section allowing soloists to literally play whatever they wanted for however long they desired, similar to certain cadenzas during the Classical period (Ex. 1.17).

As shown above, slash-notation is indicated in the solo double bass part, instructing the performer to improvise at will. This notation is common in jazz, but rarely seen within modern Western art music. Again, Proto includes an open-ended improvisatory section into the middle of a precisely arranged and orchestrated piece of music. While not many other composers of tonal music were doing this in the twentieth century, Proto keeps the tradition of improvisation alive in double bass music, thanks largely to his versatility as a performer.

Another improvisatory aspect of Western music that has been revisited during the twentieth century is the performer’s role in composing cadenzas. In many ways the pendulum has begun to swing back in the other direction from where it was at the end of the eighteenth century. Classical-era performers took many freedoms in their cadenzas, and composers began to take that freedom away. That compositional control was at its height during the end of the nineteenth century. As the dawn of the twenty-first century has arrived, composers and editors are beginning to allow performers of Western art music to have the freedom they once had in performing cadenzas. Evidence of this can be found in the editor’s notes of the Liben Edition of Serge Koussevitzky’s *Concerto for Double Bass and Orchestra*:
In this editor’s opinion, it would be of immense value to the bassist or teacher who wishes to enrich his performance of this Concerto to create his own Cadenza. The recipe is simple: choose a few of the thematic phrases, add scales, arpeggios, tempo variations, mix arco and pizzicato, add some double-stops and harmonics, use the lowest and highest registers, sprinkle some quick staccatos, blend in some sweet singing in contrast to tone color eccentricities like ponticello or percussion effects, above all dynamics, dynamics, dynamics from **ppp** to **fff**. Stir well. Keep what you like, eliminate the excess… The editor’s Cadenza inserted at page 9 is a sample which you may choose to use, but your program’s footnote, “Cadenza by the performer,” can be very impressive.\(^56\)

This cadenza footnote, written by bass pedagogue David Walter, clearly shows that the publisher and editor want the performer to write his or her own cadenza rather than play the one provided. Interestingly enough, Koussevitzky himself did not write a cadenza for his concerto when he premiered it in 1905, showing the drastic change in thought surrounding cadenzas in just over a century.

Another important item to note is that Walter encourages the performer to compose, not improvise an original cadenza for this work. This displays the mindset that while performers should be given some compositional and improvisatory freedom, they should work things out beforehand so as not to let the cadenza drag on too long during the performance.

While not many in number, the pieces discussed in this section show a clear re-emergence of improvisation in tonal music. Although the twentieth century brought about a large number of works using “indeterminate” or “chance” music that incorporate improvisational elements, there have been few that employ use of tonal improvisation in an organized form.\(^57\) Nevertheless, works using structured, tonal improvisation in Western art music have begun to resurface. Coupled with performers being encouraged to compose their own cadenzas, there is clearly a reviving interest in improvisation in Western music, including works composed specifically for double bassists.

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CHAPTER 2

METHOD FOR LEARNING IMPROVISATION

Introduction

The twentieth century has seen a number of different uses for improvisation, including jazz, chance or aleatoric music, free improvisation, and historical performance practices with embellishments and improvised cadenzas. In order to provide a solid foundation in improvisation, this treatise will focus on improvising within common-practice, dominant-to-tonic harmony. With this foundation, students will not only feel more comfortable with their basic improvisatory skills, they will optimistically gain the confidence to begin exploring the other types of improvisation mentioned throughout this treatise.

This chapter will be divided into four sections. The first will offer basic chordal structures for improvisation, providing the student with a fundamental starting-point. The second section will be devoted to the importance of rhythmic vocabulary, showing that it is more the rhythm, not the notes, that truly defines style. The third section will focus on the dominant-to-tonic chord relationship, and how a thorough understanding of this basic concept will facilitate improvisation in any genre. The fourth will discuss the importance of listening and transcribing in the process of learning improvisation. Once the student has mastered these concepts, he or she will have an improvisatory foundation that will increase his or her overall musicianship, creating a multitude of opportunity within the professional music world.

Section I: Basic Chord Structures

When orchestral bassists (or any musician for that matter) begin to improvise, they often will play anything that comes to mind, trying to play notes within a certain scale. This often sounds like the musician is throwing notes at the wall, hoping something sticks. This is what composer Hal Crook refers to as the “Ready, Fire, Aim”58 approach to improvisation. When musicians attempt to improvise without any knowledge, they will wonder why what they are playing simply does not seem to fit. Again, Crook describes the faults in “Ready, Fire, Aim” as

follows: “this approach has serious limitations because of the considerable chance element involved. In other words, maybe your hearing and intuition will produce something new and valuable today which you can learn from, but maybe it won’t.” The reason why this happens is that the performer does not understand the structure of the form that he or she is using to improvise. One of the most efficient ways to start learning improvisation is to do so within a specified form, the simpler the better. Scholar Bruno Nettl refers to these structures as “points of departure,” while Crook refers to these structures as using a “target approach.” Either way, the basic premise is that when learning to improvise, the student must do so using a certain form or configuration. When using a simple, defined structure, students will not become so overwhelmed when they begin to improvise. This is the reason that many jazz musicians often use a basic blues form when first learning improvisation – it is a simple, repetitive song structure that is easy to memorize and internalize.

Regardless of what form or chord progression is used, the first step is to fully understand the structure being used for learning improvisation. In order to learn this configuration, it is imperative for the musician to learn all the notes of the basic chords within the piece. It is recommended that before using this method for learning improvisation, the student has a grasp of the basic chord construction system (triads and seventh chords) used in Western music theory. Additionally, a guide to lead-sheet notation has been provided in the appendices for further study.

For the purposes of this treatise, the first movement of Antonio Vivaldi’s Sonata No. 3 (RV 43) will be used as an example of a structure that can be used for learning improvisation (Ex. 3.1).

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59 Crook, 11.
61 Crook, 12.
Example 3.1. Antonio Vivaldi, *Sonata No.3*, RV 43, mm 1-10, 1st mvt., Roman numeral analysis.

The analysis of this work shows the implied chords within the first ten measures. The same has been done in the succeeding example, except using modern lead-sheet notation instead of traditional Roman-numerals (Ex. 3.2). For the purposes of this treatise each dominant chord will be described as a dominant-seventh (V7) chord, so as to allow more note choices in the subsequent improvisatory exercises.

Example 3.2. Antonio Vivaldi, *Sonata No.3*, R V43, mm 1-10, 1st mvt., chordal analysis using modern lead-sheet notation.
While many beginning improvisers may think that a wide array of notes must be used, the truth is that only the notes in the chords are needed to construct a competent, expressive solo. Through understanding the fundamentals of chord construction, any bassist can learn to improvise. In the above examples, the chords have been provided for the first ten bars of the piece, creating a structure where students can use to create their own melodies. The next step is to simply learn and memorize the actual notes in the chords. Also, it will greatly benefit the student to play the notes in the chords as they occur within the form. Essentially, the arpeggios should be played in the same amount of time that it takes for the chords to change (Ex. 24).

Example 3.3. Chord Etude 1: Arpeggios over mm 1-10 of Sonata No. 3.

Any variation of notes within the chords can be used, just as long as the student learns all of the notes within the given chords (Ex. 25).

Example 3.4. Chord Etude 2: Expanded Arpeggios over mm 1-10 of Sonata No. 3.
Although these exercises appear to be extremely technical and non-musical, it is important to note that all the notes of the melody, with the exception of a few passing tones, can be found within these chords.

Many scholars and educators, particularly those teaching in secondary school programs, disagree with this approach. Instead, they often use what is known as the chord-scale approach, where the student is given a particular scale to use over each chord. John. P. Murphy, Professor of Jazz Studies at the University of North Texas, describes the method in the following manner: “the chord-scale approach… is often the first thing students learn about improvisation. Teaching this approach is an unquestioned way that middle and high schools might establish ways of relating to improvisation.”

A chord-scale exercise over the same ten measures of Vivaldi’s Sonata No. 3 would look something like this (Ex. 3.5):

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Amin                        E7                                    Amin                    Dmin                       B7

E7
Dmin                                  D7                                                                   G7
Cmaj                                                                              G7

Example 3.5. Chord-Scale Exercise over mm 1-10 of Sonata No. 3.
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While this approach seems more thorough, there are a number of issues that arise when beginning improvisers use this method. As shown above, this process suggests that certain modes of the major scale be used over particular chords, e.g. the Ionian mode is played over

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major chords, the Mixolydian mode over dominant chords, and the Aeolian mode over minor
chords. The thought behind this process is that the fundamental pitches of the chords (root, 3rd,
5th and 7th) are emphasized on the strong beats of each measure when the scale is being played.

The main problem with this method is that beginning improvisers may not understand
that certain notes in these scales are more important than others. For example, in the chord-scale
method students are told that they can play the notes in a C Ionian scale over a C major chord.
The student, doing as he or she is told, may decide to play an F-natural over this chord.
Although it is in the scale, playing an F-natural will change the fundamental quality of this chord
because the F will only exist in a basic C-chord if the chord is suspended. Furthermore, playing
an F-natural will create quite an ugly dissonance with the accompaniment in that it will clash
with the E-natural, making a half step, minor-second interval. The same would happen if the
student played an E Mixolydian scale over an E dominant chord and decided to play the A-
natural that exists in the scale. This would create a minor-second clash with the third
(G-sharp) of the E dominant-seventh chord.

This is precisely why it is imperative that the student learns the notes of the chords before
learning any sort of corresponding scales. Not only will unwanted dissonances be avoided, the
student will have a much better grasp of the structure of the piece. Furthermore, there are fewer
notes in arpeggios than scales, and thus the student will be able to internalize the information
more easily since there will be less of it to learn. Murphy goes on to comment that jazz
improvisation classes in many universities regularly “overemphasize the part of [the] music that
works best with the chord-scale approach.”

While an excerpt from Vivaldi’s Cello Sonata No. 3 is initially used as a structural
example, literally any chord form can be used in this process. One structure commonly used by
jazz educators is the blues form, largely because it is relatively short and simple. In the words of
bassist John Goldsby, “the blues form is so broad it has a category to itself.” The basic blues
form is pictured below:

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63 Murphy, 171.

Because this song form is so simple, countless musicians have used it as an outline for their original compositions as well as a means for learning improvisation. According to Goldsby, “you will find thousands of standard jazz compositions that share [this] structure.”

While there are numerous variations on the chords used in the blues, modern professional musicians will often use the following version:


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65 Goldsby, 160.
Although often employed by jazz bassists, orchestral bassists can also use this form as a structure in learning to improvise. For the purpose of this treatise, the modified form pictured above will be used as the basis for improvisation.

Just like the Vivaldi example, the first step in learning to improvise over the blues form is to simply learn the notes in the arpeggios. Because each of the chords in the blues progression is a seventh-chord, it is often easier to start by learning the triads before learning the seventh-chord arpeggios (Ex. 3.8).


Once comfortable with playing the triads, the student should then learn all of the notes in the seventh chords (Ex. 3.9).

To expand the blues exercise further, the student can add the ninth scale degree to each of the seventh-chord arpeggios. This type of exercise is more common in jazz improvisation texts (Ex. 3.10).

Example 3.10. F – Blues Seventh Chords with an Added Ninth Etude. 
When learning these exercises, the student is encouraged to perform them with a variety of different bowings. The student can slur the notes in groupings, slur entire measures together, separate and slur different notes within the measure, or some combination thereof. Several examples of bowing variations are subsequently displayed.

Example 3.11. Bowing Variation 1: F – Blues Seventh Chords with an Added Ninth Etude.


Another critical aspect of learning these exercises that has not been discussed is the importance of memorization. While the student may have to refer to a chord chart when first learning the notes in the arpeggios, it is imperative that he or she eventually memorize these notes. Memorization is key in learning to improvise because in the following sections of the chapter, the student will be asked to perform different combinations of the notes in the chords using various rhythmic motives. If the student is constantly referring to a worksheet to remember the notes in the chords, it will only make the incorporation of more data more (e.g. rhythmic patterns) more difficult. One technique that will aid in memorization is to practice the arpeggios starting in different places throughout the chord progression. If the student always starts practicing from the beginning of the form, he or she will most likely have the beginning memorized, but not the end. By starting in different spots, the student will be able to internalize the form more quickly, thus allowing the study of improvisation to progress faster.

Whether it is a blues, bar form, rounded binary, minuet-trio, or even a da-capo aria, any form can be used as long as the student learns and understands all the chords within the structure. It is recommended that beginning improvisers use small forms when starting, even as short as two or four measures. This will allow the student to internalize the information more easily before moving on to more advanced material.
Section II: Rhythmic Vocabulary

Once the student has a firm grasp on the basic structure he or she desires to use to extemporize, the next step is to isolate the types of rhythms used in improvising. While countless volumes have been written about the different notes that can be used when improvising, very little has been written about the specific use of rhythm. In the words of Murphy, “[improvisation] pedagogy overstresses pitch to the detriment of rhythm.” One universal characteristic of beginning improvisers is that they often sound like they are playing a random array of notes, making no musical sense whatsoever. This is because they are completely focused on the harmony and ignoring the rhythm entirely. This is a grave mistake because the rhythm used in any musical context completely defines the style of music being played. The following is a description of this phenomenon by Leopold Mozart:

Time makes melody, therefore time is the soul of music. It does not only animate the same, but retains all the component parts thereof in their proper order. Time decides the moment when the various notes must be played, and is often that which is lacking in many who otherwise have advanced fairly far in music and have a good opinion of themselves. This defect is owing to their having neglected time in the first instance. Everything depends on musical time-measure, and the teacher must use the greatest patience in seeing that the pupil grasps it thoroughly, with diligence and attention.

In many ways it is more important to focus on rhythms before notes when learning to improvise, except that the student must have some type of musical structure in which to use these rhythms. Therefore, once the basic chords are learned, the student must then focus on the use of rhythm within the limited context of the notes in the chords.

Once the arpeggios of the chords have been learned, it is best to isolate how the rhythm is used. To start improvising, the student should pick a simple rhythm no longer than one measure (Ex. 27).


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66 Murphy, 171.
67 Mozart, 30.
Again, it is important that these rhythms are simple; it will only hinder the learning process if the student is asked to play too much too soon. After a rhythm is chosen, the student should play this rhythm every measure when improvising, and pick one of the notes in each of the chords in which to play this rhythm (Ex. 28).

Example 3.15. Rhythm Etude 1: Playing the roots of each chord of mm 1-10 of Sonata No. 3 in a single rhythmic pattern.

While this is written out as an etude above, it is essential that the student perform this exercise without using sheet music. Again, he or she must pick a one-bar rhythm, and play that rhythm each bar while playing one of the notes in the chords. It is best to stick with just one of the notes in each chord in the beginning rather than making all of the notes available. This is to ensure that the student can assimilate the information more easily. Also, the root of the chord does not have to be used first; the third or fifth works just as well. Below is an example using the third of each chord:

Example 3.16. Rhythm Etude 2: Playing the third of each chord of mm 1-10 of Sonata No. 3 in a single rhythmic pattern.
Once the student has become comfortable with playing just one of the notes in each chord, he should be given the option of using two of the notes (e.g. root and third, third and fifth, etc.). He still should use the same rhythm pattern each measure. Below are several examples using different chord tones.

Example 3.17. Rhythm Etude 3: Playing the roots or thirds of each chord of mm 1-10 of Sonata No. 3 in a single rhythmic pattern.

Example 3.18. Rhythm Etude 4: Playing the thirds or fifths of each chord of mm 1-10 of Sonata No. 3 in a single rhythmic pattern.

While any simple rhythm can be used, it is imperative that the same rhythm be used every measure, especially when the student is first learning. Also, the above exercises are merely examples of what the student should be improvising on their own; no sheet music should be provided to them during this process!

Once the student is comfortable with using two notes from each chord, he or she can then move on to using any of the notes of the chords. Again, this exercise should be done using the same rhythm every bar (Ex 32).
Example 3.19. Rhythm Etude 5: Playing any chord tone of mm 1-10 of Sonata No. 3 in a single rhythmic pattern.

A way to expand on this same exercise is for the student to play the same rhythm, but only play every other measure (Ex. 33).

Example 3.20. Rhythm Etude 6: Playing any chord tone of mm 1-10 of Sonata No. 3 in a single rhythmic pattern (every other measure).

To further develop the exercise, the student can play for a measure and then rest for two:

Example 3.21. Rhythm Etude 7: Playing any chord tone of mm 1-10 of Sonata No. 3 in a single rhythmic pattern (every third measure).
As mentioned previously, any chord progression can be used when learning to improvise. The same rhythmic approach will now be applied to the blues progression described earlier. The following musical examples will demonstrate the process of using just one note of each chord, then two notes, and lastly multiple notes being played using a single rhythmic pattern. Then, etudes displaying a combination of rhythmic patterns will be presented. Remember that these are merely examples of what the student ought to be improvising using his or her knowledge of the chord-tones combined with the use of repetitive rhythmic ideas. Finally, the following exercises can be performed as shown, or can use swing-style rhythms ($\text{Œ} = \text{Œ} \text{l} \text{j}$).

Example 3.22. F – Blues Rhythm Etude 1: Playing the roots of each chord in a single rhythmic pattern.
Example 3.23. F – Blues Rhythm Etude 2: Playing the thirds of each chord in a single rhythmic pattern.

Example 3.24. F – Blues Rhythm Etude 3: Playing the roots and/or thirds of each chord in a single rhythmic pattern.
Example 3.25. F – Blues Rhythm Etude 4: Playing the thirds and sevenths of each chord in a single rhythmic pattern.


Once the student is comfortable using all of the chord tones with a repeating rhythm, he or she is then encouraged to perform this exercise combining many different rhythms. It is important during this process that the student is only using the notes in the chords. This will ensure that as the student branches out rhythmically, he or she is not overwhelmed with too many note choices. The following page contains examples of blues improvisations that can be played using only the chord tones.
Example 3.27. F – Blues Rhythm Etude 6: Playing only the notes in the triads with multiple rhythmic patterns.

Example 3.28. F – Blues Rhythm Etude 8: Playing any chord tone with multiple rhythmic patterns.

If students feel adventurous, they are encouraged to enhance this exercise by using the added ninth of the arpeggio as well as the chord tones (Ex. 3.29). This will augment the student’s melodic vocabulary, allowing for more interesting ideas. However, it is important to remember that while this addition provides more melodic freedom, it is essential that the student limit the exercise to only these designated notes. Learning to branch out beyond the chord tones will be explored more in the following section of the chapter.
Once again, it is absolutely vital that students perform this exercise without any music in front of them. If they are looking at anything, they could have a lead-sheet with the chord symbols they are using for their improvisation. Nevertheless, it is recommended that the student memorize the arpeggios and chord progression before beginning the above rhythmic exercises.

Finally, if the student has trouble internalizing all the measures of an exercise, it is recommended that he or she perform this same exercise with a shorter chord progression (e.g. two-or-four measures). Again, it is integral that the student memorize and internalize the information presented before trying to learn more advanced exercises.

The main reason for over-simplifying the use of rhythm in students’ early improvisations is simple: if they do not have to choose what rhythm to play, they can focus their efforts on playing the appropriate notes in the chords. What often happens with beginning improvisers is that in their efforts to play the right notes, there is a total absence of any rhythmic structure. Furthermore, if not given a specific rhythm to play, students will often grasp on to a strong rhythmic figure that is not idiomatic to the genre. This is extremely common in beginning jazz improvisers. When students are unfamiliar with the concept of swing, they will often grasp on to a distinct rhythm such as quarter-note triplets, and play that rhythm over and over. Unfortunately, playing quarter-note triplets is very un-idiomatic to swing music, and thus the improvisation ends up sounding stilted, even though the student is playing notes that fit within the chords.
The solution to this dilemma is clear: provide the rhythms you want the student to play. This concept can be used in learning any style, whether it’s Baroque, American Jazz, or any other genre of music. As Leopold Mozart stated, the rhythm is the soul of the music, and truly defines how the music sounds. Provide the rhythm to the students, and suddenly they will sound like experienced improvisers. Only when students have grasped this concept should they be encouraged to play their own rhythms when improvising.

**Section III: Common-Practice Harmony and the Importance of Leading Tones**

Once the student has become proficient in understanding rhythmic vocabulary and can perform his or her own rhythms within a style, the next step in learning to improvise is to understand the principle of the dominant-to-tonic chord progression in tonal music. The simple idea of tension and release through the resolution of a dominant chord to a tonic chord has been the driving force in Western music for nearly four hundred years. In general, common-practice harmony incorporates a series of dominant-to-tonic, V-I chord progressions in different keys throughout a piece. To begin understanding this, the diatonic series, or seventh-chords built on each note of the major scale, will be examined (Ex. 3.30).

![Example 3.30. Diatonic-Seventh Chords in the Key of F major.](image)

The same series exists in minor keys, where the chords are built off of notes in the harmonic minor scale (Ex. 3.31).

![Example 3.31. Diatonic-Seventh Chords in the Key of F minor.](image)
It is important to note that the examples above and below show every chord with an added seventh. While common in jazz, this is seen much less in Western common practice where the chords that usually contain a seventh are the ii\(^7\), V\(^7\), and vii\(^07\).

When put into the context of the circle of fifths, the chords in the diatonic series will naturally occur in the following manner (Ex 3.32).

Example 3.32. Major Diatonic Chord Progression created when the chords are played in ascending fourths or descending fifths.

The same progression will occur in corresponding minor keys (Ex. 3.33).

Example 3.33. Minor Diatonic Chord Progression created when the chords are played in ascending fourths or descending fifths.

Important things to notice in the above examples are that despite major or minor keys, the V chord is always a dominant chord, or literally a "big" V. The reason for this is that the chord must contain a leading tone that drives the tension to a resolution. In each of these V7 chords, the leading tone is the E natural that is pushing our ears to the resolution of the F major or minor chord. The half-step relationship provides the tension that must be resolved. For the purposes of this treatise, the term “leading tone” will refer to any ascending or descending local half-step chromatic resolution. This is different from the traditional leading tone, which refers specifically to seventh scale degree resolving to the tonic.

Why is this important? Simply put, the goal of compositions in Western music, particularly those from the common-practice period, is to arrive at a V-I, dominant-to-tonic progression. The dominant, or V chord is also often preceded by the ii chord, the "pre-
dominant* in the circle of fifths progression. If students can identify all of the dominant-to-tonic, or V-I progressions in a composition, they can then identify all of the key centers and improvise accordingly.

Furthermore, most dominant-to-tonic chord progressions usually correspond to where each melodic phrase ends within a piece. Not only will understanding the location of each V-I progression help students understand the relevant key centers, it will also show them natural stopping points to end phrases when improvising.

To help clarify the importance of the dominant-to-tonic progression, the same ten measures of the opening movement of Vivaldi’s Sonata No. 3 will be re-examined (Ex. 3.34).

Example 3.34. *Sonata No. 3*, RV 43, mm 1-10, 1st mvt., Roman numeral analysis and lead-sheet analysis combined.

In scrutinizing the above analysis, it is important to note the location of each dominant-to-tonic progression. While there is a clear i – V – i° in the first 3 measures, the true cadence to the dominant chord does not actually occur until measure 4, where the V chord is preceded by a secondary-dominant. This dominant chord truly resolves in measure 6 to the A minor (i), and then a modulation to the relative major begins. In measure 7, the D minor chord acts as pivot chord, meaning that it is both the iv in the key of A minor and the ii in the key of C major. This
is especially important because this chord is a pre-dominant in C major, relating to the cycle of fifths. The ii is then followed by another secondary-dominant, which then leads to a V – I progression in C major.

Although the above analysis seems like it belongs more in a music theory class than in an improvisation exercise, the truth of the matter is that a proficient understanding of basic Western theoretical concepts, particularly those relating to the dominant-to-tonic progression, is paramount in learning improvisation. If students understand where the V – I progression occurs, they can then choose notes within the chords that will better resolve their improvised phrases.

Two notes of extreme importance that can (and should) be used when improvising are the third and seventh of dominant-seventh chords. These two notes are absolutely essential because they, much more than any other note in the surrounding chord or corresponding scale, will lead to a sonically pleasing resolution note in the tonic chord. In essence, if the third of the dominant chord is played, it will naturally lead up to the root of the tonic chord. If the seventh is played, it will naturally lead down to the third of the tonic chord. The same concept holds true for secondary-dominant chords. Even though the phrase has not yet resolved, this chord leads to a dominant that will eventually resolve to the tonic. To illustrate this point, a written melody over the chords of the same ten measures of the first movement of Vivaldi’s Sonata No. 3 has been provided below:

Example 3.35. Dominant-Tonic Etude: Resolution of Phrases Using the Thirds and Sevenths of Dominant-Seventh Chords.
As illustrated above, the third and the seventh of the dominant chords very clearly lead to a resolution. Furthermore, if the improviser were to play one of these notes, and then not resolve it, the listener would be left with a distinct feeling of uneasiness.

By grasping this concept, students not only can learn to emphasize important notes in each chord, they can improvise musical phrases that lead to a clear, sonic resolution. Musicians in every style, including jazz musicians, use this very same concept when improvising. Below is an excerpt from a solo played by saxophonist Charlie Parker in his composition “Anthropology”:

Example 3.36. Charlie Parker, “Anthropology,” mm 21-23, use of the thirds and sevenths of dominant-seventh chords as leading tones.

Here, Charlie Parker ends his phrase over the dominant F7 chord on an A-natural. This note will sonically resolve to the root of the tonic Bb chord in the next measure. Also, Parker takes the dominant-to-tonic approach one step further in the previous measure where he plays a B-natural over a C minor chord. The reason why this note works is that it is the third of dominant chord relating to C minor (G7), and this note then resolves to the root of the C minor chord. Although the G7 chord is not explicitly written, it is very briefly implied as a device to lead the listener to a resolution of the phrase. This type of device is also often referred to as an “enclosure” by jazz pedagogues. On a final note, the only thing that would really place the above excerpt in a jazz genre is that the eighth notes are played in a swing style (\textfrac{3}{4} \rightarrow \textfrac{3}{4}).

Were these notes not swung, this excerpt could come from almost any genre in Western music.

Once the student has grasped this vital concept, he or she then can embellish solos with passing tones, neighbor tones, and other notes. The most important thing for students is to always emphasize the notes in the chords, thus highlighting the leading tones in the dominant chords when moving to a tonic chord. Once again, the first ten measures of the opening movement of Vivaldi’s Sonata No. 3 will be used as an example:

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68 Goldsby, 58.
In looking at each measure of the melody, every note is either in the related chord or is a passing or neighbor tone connecting the chord tones. In the first measure, the only non-chord tone is the B-natural, which leads back to the tonic of A-natural. In the third measure, the only non-chord tone is the C-natural, which leads to the subsequent B-natural. Also, it could be argued that this note is actually the 7th of the D minor chord, making it a vi7 or Dmin7 chord. In measures 4 and 5, the F-sharp and C-natural both serve as passing tones in the melody. In measures 6 and 7, the E-naturals are upper-neighbor tones that lead back to the D-natural. In measure 8, the A-natural is simply a passing tone to the root of the chord. Lastly in measure 9, the D-natural leads to the third of the tonic chord.

The process of understanding the dominant-tonic resolution chords can also be applied to the blues progression. The only thing that must be taken into account is that the F and Bb chords in measures 1 and 5 function as the I and IV despite the fact that they have a dominant quality. An analysis of this progression has been provided (Ex. 3.38)
The blues form works well as a tool for learning improvisation not only because of its short length but also because of the number of cadence points in the chord progression. Assuming again that the F7 and Bb7 in measures 1 and 5 act as the I and IV chords despite their dominant quality, then there are four different dominant-to-tonic cadence points in the blues progression. These occur in measures 4 – 5 (F7 – Bb), 8 – 9 (D7 – Gmin7), 10 – 11 (C7 – F), and 12 – 1 (C7 – F). In emphasizing the leading tones in these particular measures, students can create very clear cadence resolutions in their improvisations.

Another improvisatory technique that has become used quite frequently, especially in jazz, is the concept of descending chromatic leading tones. While leading tones used in traditional Western music theory resolve upwards by a half-step, many improvisers use the same technique but instead resolve chromatically down a half-step. In common practice music this is called an elided resolution. Richard Lawn and Jeffery Hellmer, faculty members at the University of Texas at Austin, also refer to this idea as a “chromatic passing tone.” Again, in this treatise the term “leading tone” refers to any ascending or descending half-step chromatic resolution. When combined with using traditional leading tones, improvisers can create very clear, distinct cadences in their phrases. The reason why the descending chromatic leading (or passing) tone functions well in resolving phrases is the same reason a traditional leading tone

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works well: there is a clear dissonance, followed by a tonal resolution. To illustrate this concept, an excerpt of a solo improvised by bassist Sam Jones has been provided (Ex. 3.39).


This improvisation shows clear use of leading tones (ascending and descending) as well as chord tones. In measures 5 and 8, Jones uses a descending chromatic passing tone to clearly lead to a resolution note in each cadence. In measure 5, he resolves to the root of the Bb7 chord, while in measure 9 he resolves to the third. In measure 6 he uses an ascending leading tone to resolve the phrase, with the G# resolving to the third of the F7 chord. In measure 11, he also uses the leading tone E to resolve to the root of the F7 chord, and combines this with the concept of the upper-note “enclosure” discussed earlier in the chapter. By using these techniques, improvisers of all skill levels can clearly outline cadences during their solos.

Once the student has a firm grasp of dominant-to-tonic harmony, the next step is implementing the use of leading tones into his or her improvisations. The most logical way to do this is to simply combine the ascending and descending leading tones with the practice techniques discussed earlier in the chapter. Additionally, the student should practice certain patterns that accentuate the different types of leading tones in passages using chord tones and other melodic devices. These include passing tones, neighbor tones, etc. (Ex. 3.39).
Example 3.40. Ten improvisational patterns over major and minor dominant-to-tonic chord progressions.

In the above example, ten different patterns have been provided for the student to practice. The purpose of these exercises is to help the bassist emphasize dominant-to-tonic chord progressions while improvising. Notice that the patterns above use a combination of chord tones, ascending and descending leading tones, and dissonance resolution to notes in the triad of the tonic chord. Furthermore, there is frequent use of the melodic “enclosure” discussed earlier. While improvising jazz musicians typically use these devices, these patterns can be used in any style that employs Western harmony. Remember that rhythm defines style, thus the same melody can be used in many different styles and genres.

While it may seem that using these exercises during an improvisation is not a true, spur-of-the-moment creation, remember that improvisation is the spontaneous use of different assimilated patterns. That being said, the following guidelines should be used when learning the above exercises:
• The student should learn only one pattern at a time, and should do so in all twelve keys.
• Before learning an additional pattern, the first must be memorized in every key.
• When practicing improvisation, the student should use one memorized pattern in various places throughout different forms in different keys.
• Once the student has truly learned a single pattern, he or she can then learn an additional one, following the same process.
• The student is encouraged to vary the rhythm of the pattern(s) once memorization is complete.

In following the above process, students will be able to create improvised solos that emphasize cadences in a clear, musical way. They are also encouraged to create their own patterns that use a combination of chord tones, melodic devices, and leading tones.

It is important to remember that any chord progression or form can be used when learning improvisation, so students are encouraged to find their own song forms in addition to the ones provided. While an in-depth chord analysis is not necessary, the student must be able to recognize where the dominant-to-tonic progressions occur, and from there improvise accordingly using the methods previously discussed. These include using chord tones, rhythmic vocabulary, and leading tones.

Section IV: Listening and Transcribing

Aside from the methods explained in this treatise, the most important thing students can do in learning improvisation is to listen to music and transcribe melodies and solos from musicians they admire. Listening and transcribing will close the gap between understanding the theory and performance of improvisation in that the student will begin to naturally hear the concepts that the theory is explaining on paper. The more students listen and transcribe, the more they will connect the theory with what they hear, thus greatly expanding their overall musicianship. In the chapter, guidelines for both listening and transcribing will be provided to aid the student in this learning process.

Listening

One of the most important activities for aspiring improvisers is listening to recordings of experienced improvisers, particularly those within the style that the student wishes to use when
creating his or her own solos. While notated music provides insight into how the music should be played, there is no substitute for simply listening to the music. Recordings of improvisers in every genre contain stylistic nuances that no book could begin to describe. Not to mention that music is after all an *aural* art form – it is meant to be heard! When listening to recordings of others improvising, students should use the following guidelines:

- Listening is an *active* process – be engaged when you listen.
- Do NOT do the following when listening:
  - Search the internet
  - Watch television
  - Read books
  - Homework
  - Any other activity that will severely divide your attention
- Listen to the complete recording many times. After the first time through, focus on specific aspects of the recording. Try to focus on each of the following items separately when listening:
  - The soloist or soloists
  - The accompaniment: first each individual member, then the entire section
  - How the soloists interact with the accompaniment and vice versa
- Expose yourself to as many different kinds of music as possible. It is important that bass players listen to every style of music that the bass is used in. This ranges from jazz to Western classical to rock to hip-hop and everything in-between.
- Revisit recordings you listened to at one point months or even years in the past. You will definitely hear the recording differently once you have been away from it for a while. You may even find that you enjoy something that you remember disliking in the past.
- Buying albums is very expensive, so use the following resources to access recordings:
  - Library – university or public
  - Recordings belonging to friends and teachers – do not copy, just listen!
  - YouTube – currently holds thousands of videos of master improvisers
  - Spotify – an online listening resource that is free for all users
Transcribing

After the student has done a thorough amount of listening, the next step is to transcribe improvised solos from bassists he or she admires. This is by far the most difficult step in learning to improvise, but it is also by far the most rewarding. As mentioned earlier, this is the final puzzle piece that will allow students to create melodies based upon patterns they hear and have practiced throughout this entire learning procedure. Use the following guidelines to aid in transcribing:

• Be prepared to devote many hours to this process. It will become easier with time, but will be very difficult at first.
• Students should notate their transcriptions, but ONLY after they are able to play the entire transcription from memory with the recording. If students notate the transcription as they go, they will not take the time to truly assimilate the notes by playing along with the recording every day.
• In addition to bass solos, students should transcribe solos from other prominent improvisers, e.g. vocalists, brass and woodwind players, etc.
• To aid in the process, students should purchase the program Transcribe or The Amazing Slow Downer. These programs allow fast recordings to be slowed down without changing the pitch, making the transcription process easier. This is by no means required but will certainly be a helpful asset.
• Students should transcribe from multiple styles of music. The following are lists of bassists from different genres, all of whom are master improvisers. The student is encouraged to listen and eventually transcribe solos performed by the following musicians:
  o Symphonic (Western)
    • Edgar Meyer
    • Frank Proto
    • Francois Rabbath
    • Ranaan Meyer
    • David Grossman
    • Colin Corner
Jazz

- Jimmy Blanton
- Oscar Pettiford
- Paul Chambers
- Ray Brown
- Rufus Reid
- Lynn Seaton

**Conclusion**

As previously illustrated, a strong melody, whether pre-composed or improvised, can be easily created through chord tones, leading tones, and some passing tones in-between. Combined with a strong rhythmic concept, these simple ideas will help any bassist become a competent improviser in any style using common-practice Western harmony. It is also important to note that improvisation is a skill like any other, and simply needs to be practiced in order to gain proficiency. In closing, a quotation from pedagogue Nicole Brockmann brilliantly surmises this concept:

Contrary to popular myth, improvisation has almost nothing to do with virtuosic playing and everything to do with virtuosic listening. Since it is based on hearing, a skill that every musician must possess, anyone can learn to do it, regardless of whether you have been playing an instrument for four years or forty. The relationship between improvisation and listening is simply: if you can hear and understand what is going on around you, you can jump into the sandbox and play with others. This requires neither perfect pitch nor virtuosic fingers. No matter what the level, learning improvisation and the skills that come with it will hone your musicianship as well as your technique.  

APPENDIX A:

LEAD SHEET NOTATION

Below is a brief guide for chord symbols used in modern lead-sheet notation. All chords have been notated starting on C-natural for ease of study and consistency.

\[
\begin{array}{cccc}
\text{C or Cmaj} & \text{Cmin or C-} & \text{C}_0 \text{ or Cdim} & \text{C} + \text{ or Caug} \\
\text{Csus} & \text{C}6 & \text{Cmin}6 & \text{C} 6\ 9 \\
\text{Cmin} 6\ 9 & \text{Cmaj7 or C} & \text{Cmin7 or C-7} & \text{Cmin7(i5) or C}07 \\
\text{C7} & \text{C}7\text{sus} & \text{C}07 \text{ or Cdim7} & \text{C7}#5 \text{ or C}+7 \\
\text{C7}5 & \text{Cma7}5 & \text{Cmin (maj7)}
\end{array}
\]
BIBLIOGRAPHY


Dr. Michael Geib, double bassist, composer, and pedagogue, joined the faculty at the University of Central Oklahoma School of Music in 2010. He earned his bachelor’s degree from Clemson University, and his master’s and doctoral degrees from the Florida State University College of Music. His principal teachers have included Melanie Punter, Rodney Jordan, Ian Bracchitta, and Delbert Felix.

As a symphonic musician, Dr. Geib has performed in professional orchestras in Arkansas, Colorado, Florida, Georgia, Oklahoma, North Carolina, and South Carolina. Currently he is the principal bassist of the Enid Symphony Orchestra and Edmond Chamber Orchestra, as well as a member of the Oklahoma Haydn Festival Orchestra and the Colorado Mahlerfest Orchestra. He has performed on multiple recordings for the Naxos Label, including Ellen Taaffe Zwilich: Millennium Fantasy, Images, Peanuts Gallery in 2009, where he was principal bassist and a featured soloist. He has performed in festivals internationally, including the Ringling International Arts Festival in Sarasota, Florida and the Fringe Festival in Edinburgh, Scotland. He has also been featured on a number of radio broadcasts, including Performance Today on American Public Media and Michael Feldman’s Whad’Ya Know? on National Public Radio.

As a jazz musician, Dr. Geib has performed with Dave Douglas, Kenny Garrett, Marcus Roberts, Jason Marsalis, Marcus Printup, Walt Weiskopf, Martin Bejerano, and Paul McKee, among others. He has frequently performed at The Jazz Corner on Hilton Head Island, recognized by Downbeat Magazine as one of the “150 Great Jazz Venues of the World.” Internationally, he has performed in such clubs as The Music Village in Brussels, Belgium. Currently, he is a member of the Oklahoma City Jazz Orchestra and performs with a number of different groups in the Oklahoma City metropolitan area. He is also an active jazz composer, having written original music for the Wishbone Theatre Collective production of The Story of Pete and Pickles and the Quartz Mountain Music Festival.

An active theatre orchestra musician, Dr. Geib has performed in the musicals Kiss Me Kate, Anything Goes, Spring Awakening, Beauty and the Beast, South Pacific, The Last Five Years, Chess, and Big River, among others. He has performed in multiple premieres, including Gibson and Staskel’s i.d. in 2010 and Broadway Tonight’s Flipside: The Patti Page Story in 2011. He also performs regularly for the Lyric Theater of Oklahoma.