A STUDY OF SELECTED WORKS BY CANADIAN GUITARISTS-COMPOSERS
FROM THE PERSPECTIVE OF IDIOMATIC COMPOSITION FOR THE
CLASSICAL GUITAR

BY

DANIEL BOLSHOY

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Doctoral Committee

_____
Lissa May, Research Director

_____
Ernesto Bitetti, Chairperson

_____
James Campbell

_____
Elzbieta Szmyt

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To Perry,
Ada and Zachary
You give meaning to everything I do.

Acknowledgements

Table of Contents

List of Examples

List of Examples (cont.)

List of Examples (cont.)

List of Figures

Chapter 1: INTRODUCTION

Very little has been written on the topic of idiomatic composition for the guitar. Orchestration textbooks do not normally include discussions of the guitar, or do so in a very minimal way. This has been the case throughout the history of the instrument. As a result, most of the music that was composed for the guitar was written by guitarists who were also composers rather than by professional composers who wanted to write for the instrument. The purpose of this paper is to address the topic of how guitarists compose by studying selected pieces of four leading Canadian composers who are guitarists.

Being a Canadian guitarist myself, I have chosen to focus this study on four leading Canadian composers whose instrument is the guitar. These four composers are Roddy Ellias, John Oliver, Clark Ross, and Partick Roux. In doing so, I hope to introduce the reader to new guitar music from Canada, which has not yet been discussed in an academic paper. Thus, this paper has the dual purpose of introducing important Canadian guitar music, and illustrating how composers who play the guitar create idiomatic and effective music for this instrument.

A non-guitarist composer wishing to write new guitar music for the first time might look to available orchestration textbooks for advice on how to go about tackling the challenge of writing idiomatically for the guitar. Unfortunately, as Tom Schuttenholm[1] demonstrated, such textbooks are very unlikely to help a non-guitarist composer.

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[1] Tom Schuttenholm, "A comparative analysis of the guitar entries in orchestration textbooks, " *GFA Soundboard* (Winter/Spring 2000), 15–19.

This study begins with a short overview of the available written material for composers who wish to compose for the guitar and gives a little background of the publication of Julian Bream's article on this topic[2] that first appeared in 1957. In 2006, almost fifty years after Bream's article first appeared, Chris Kachian published the *Composer's Desk Reference for the Classic Guitar*[3], a helpful and important reference book which composers can finally turn to for advice on how to compose for the guitar. The Bream article and Kachian's book are used in this study to organize the topics that constitute idiomatic composition for the guitar, and each topic is illustrated with examples from the music of the four Canadian composers who are the focus of this study.

Overview of Available Material on Guitar Composition

American scholar Tom Schuttenholm's article looks at some of the most important orchestration and instrumentation textbooks, starting with Berlioz's and Rimsky-Korsakov's well known treatises and looking at publications to the end of the 20th century. Schuttenholm studied and compared classic textbooks by composers such as Samuel Adler and Kent Kennan. His article describes the contents of the book in reference to the guitar, with the aim of demonstrating how little information is available in mainstream traditional textbooks to composers who wish to compose for the guitar.

As Schuttenholm's study clearly illustrates, composers seeking to write for the guitar are very poorly served by such textbooks. In fact, as Schuttenholm points out, some textbooks provide misinformation and even go so far as to recommend avoiding composition for the instrument: "Of the [guitar], Berlioz says that it is impossible to write

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[2] Julian Bream, "How to Write for the Guitar" *The Score* (1957), republished *Guitar Forum* (2003), 1–8.

[3] Chris Kachian. *Composer's Desk Reference for the Classic Guitar*. (Pacific, MO: Mel Bay, 2006).

well for it without being a player of the instrument; we therefore advise the student to leave it alone."[4] Schuttenholm compares the leading textbooks with regards to their treatment of the guitar, and from his study, it is very clear that the contribution Berlioz made to understanding the instrument in this genre of writing was by far the most substantial, although it is still far from exhaustive. Even Berlioz only dedicated a mere three pages of text in his treatise to the topic of the guitar, and in that text he focused mainly on simple chords and basic arpeggio patterns for those who wished to use the guitar for accompaniment.

The Guitar Entry in Berlioz's Treatise on Instrumentation

Since Berlioz was in essence the trailblazer, the first writer to give composers some information on how to compose for the guitar, it is worthwhile to elaborate on Berlioz's relationship with the instrument and to give some context to the guitar entry he created in his treatise. Berlioz's relationship with the guitar started at the age of sixteen when he took guitar lessons from a man known as Dorant, a musician from Colmar. Berlioz's guitar pieces date from the period between 1819 and 1821, prior to his move to Paris. The guitar music which is attributed to Berlioz from this period demonstrates that he relied on very rudimentary technical devices, simple arpeggio patterns, and unsophisticated chord progressions.

Berlioz's guitar music includes 25 songs collected in the volume "Recueil de Romances", in which he added a guitar part to well-known vocal melodies by popular composers of the day, as well as a collection of solo guitar pieces attributed to him by some scholars, although the authenticity of these pieces has been questioned by others.

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[4] Schuttenholm (2000, 17) quotes Ebenezer Prout, *Instrumentation*. (Boston and London: Ditson, 1876),100.

Nonetheless, according to his memoirs, Berlioz did make a living as a guitar teacher in

Paris at a private boarding school for young ladies and giving private guitar lessons

outside this school. He also travelled throughout Abruzzi with a guitar during his sojourn

in Italy as a winner of the Prix de Rome.

According to Julian Rushton, among other Berlioz scholars, even much of the

Symphonie Fantastique was originally conceived on the guitar! This intimate relationship

with the guitar did not result in the inclusion of any original music by Berlioz in the

treatise. In fact, the one piece that is included as an example of repertoire, from Verdi's

Othello, was inserted for a later edition of the treatise edited and expanded by Richard

Strauss.

Berlioz's connection to the guitar was most likely the reason that his famous

treatise contains more information about this instrument than any other important

textbook on orchestration. Included in the entry on the guitar are several often-used

quotes about the guitar, some of which may potentially have discouraged non-guitarist

composers from attempting to compose for the instrument. At the same time, Berlioz also

provided some statements about the guitar and about guitarist-composers of his day that

let us know that the instrument and leading performers were respected in musical circles.

On the one hand, Berlioz wrote that:

> It is almost impossible to write well for the guitar without being able to play the
> instrument. However, the majority of composers who employ it do not possess an
> accurate knowledge of it. They write things of excessive difficulty, weak sonority
> and small effect for the instrument. [5]

And:

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[5] Hector Berlioz. *A Treatise on Modern Instrumentation*, Enlarged and Revised by
Richard Strauss. Translated by Theodore Front. (New York: Kalmus, 1948), 145.

> Unless one can play the guitar oneself, I repeat, it is impossible to write for it pieces in several voices, containing passages that require all the resources of the instrument. [6]

But at the same time, he obviously was aware of the usefulness of the guitar in vocal accompaniments or intimate instrumental settings, and as a solo instrument:

> The guitar is an instrument suitable for accompanying the voice and for taking part in instrumental compositions of intimate character; it is equally appropriate for solo performance of more or less complicated compositions in several voices, which possess true charm when played by real virtuosos.[7]

Berlioz mentions several leading guitarists by name: Zanni de Ferranti, Huerta, and Sor and recommends that their music be studied as examples of virtuoso guitar music composed by guitarists. He ascribes the declining popularity of the guitar to the fact that pianos have becomes household items and the guitar's sonority cannot compete with that instrument's volume of sound. The final points Berlioz makes about the guitar are that it is an instrument with undeniable charm and a melancholy dreamy character that could be used more frequently than it is, and he points out that the guitar's sound is only hampered by multiplying numbers. Berlioz says: "The sound of twelve guitars playing unisono is almost ridiculous" therefore he is clearly not a supporter of the "guitar orchestra" concept, which became popular in the twentieth century.

Writings on Guitar Composition since Berlioz

Following the publication of the *Treatise upon Modern Instrumentation and Orchestration* by Berlioz in 1843[8], music for the guitar continued to be written by guitarists until the dawn of the 20th century, when performers such as Miguel Llobet,

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[6] Ibid, 147
[7] Ibid, 147
[8] Ibid.

Andres Segovia, Regino Sainz de la Maza, and Julian Bream started actively commissioning well-respected composers to compose new music for the guitar. More than a hundred years after the first publication of Berlioz's treatise Julian Bream was persuaded to write an article for the British journal *The Score* entitled "How to Write for the Guitar", in which he attempted to guide a non-guitarist who wished to compose for the guitar.

There is little doubt that Julian Bream had a very significant influence on composers of his time, and particularly on British composers. Bream's article was republished in 2003, on the occasion of Bream's seventieth birthday. In the period between these two publications, Bream solidified his reputation as a champion of new music, particularly commissions by British composers. Bream wrote a new introduction to the article at that time and noted that much of his original text still struck him as relevant to today's composers. I would add that the need for and usefulness of his article has only increased in the intervening years.

Bream's advice to composers is used throughout this study as a reference, and much of this advice is illustrated with examples of the pieces that are the focus of this document. Another reference book that this study relies upon is, Chris Kachian's *Composer's Desk Reference for the Classic Guitar* (2006), which is a more extensive attempt to answer the same question that Bream posed in the title of his article. The format of this study follows the organization of topics in Kachian's book. Each topic is presented as it appears in Kachian's book and in Bream's article. This presentation is followed by examples and discussion of how this topic is treated in the pieces that were chosen for this study.

Notes on the Pieces in this Study

The music for this study was chosen to illustrate how guitarist-composers compose. Because this study also aims to showcase some relatively unknown compositions by important Canadian guitarist-composers, I chose pieces that represent a variety of genres: sonata form, variations form, chamber music, virtuoso showpieces, didactic music. The chosen composers represent various parts of Canada from east to west, including the most populated provinces of Canada- Quebec and Ontario. I have chosen a theme and variations: *McGillicuddy's Rant,* by Clark Ross (St. John's, Newfoundland); a quintet for guitar and string quartet: *I Sleep and my soul awakens*, also by Ross; a four-movement sonata: *Emptying*, by Roddy Ellias (Ottawa, Ontario); a virtuoso showpiece: *Aurore Boreale*, by Patrick Roux (Gatineau, Quebec); and a set of studies: *Minimusica*, by John Oliver (Vancouver, British Columbia).

Scores are included in Appendix A, and the reader is strongly encouraged to examine the music, as the purpose of this study is limited to the examination of the idiomatic aspects of the pieces. There is no doubt that the musical value of these compositions is such that they should be better known by guitar music aficionados internationally, and it is hoped that this study might whet the appetite to become more familiar with this music.

McGillicuddy's Rant (2003)

I met the composer of this piece, Clark Ross in 2002. At that time the composer presented me with a piece that consisted of a theme and several variations, which interested me very much. Shortly after I began working on the piece, the composer

7

decided to revisit the piece and added several more variations. I made the world premiere recording of this piece in 2007 on a CD entitled *McGillicuddy's Rant*.

Clark Ross composed the original theme in 1980, and the variations were composed at different times between 1980 and 2003. The composer says in the introduction to the music that the piece may be performed with only selected variations, or that the order of the variations may be altered by the performer. Some variations are closely based on one or both halves of the binary-form theme, and in some variations the connection is more elusive.

The theme is 16 measures long and is pentatonic, which lends it a vaguely Celtic sound. It also features several hints of whole-tone scales in the bass line (m. 10, and also mm. 6-7) as well as chromaticism (m. 9, m. 11, m. 12, mm. 13-16). But despite these harmonically adventurous moments, the theme sounds very accessible throughout. The ten variations that follow describe an arch-like form in which the highest energy points occur in the sixth and seventh variations.

The first variation, *Jig*, maintains the bass line almost verbatim, with a flowing and technically demanding upper voice. The second variation, *Nostalgic*, is closely related to the theme. The upper voice is simply a restatement of the theme's upper voice with very minor alterations, while the bass line is a more florid rendition of the original bass part. This is followed by the technically challenging *Scherzo*, which features glimpses of the theme and many rhythmic and articulation challenges. The fourth variation, *Bluesy*, is another virtuosic variation, featuring two ostinato sections, one in the bass and one in the upper voice. Each ostinato is played on three strings, using slurs from and to the open strings against a moving line in the other voice. The fifth variation,

Arabesque, is a haunting, slow, and beautiful study in polyphonic composition. Ross ingeniously suggests a thicker texture than the guitar would normally encounter, but it is handled in a very idiomatic way that makes the music flow seamlessly despite the intricate texture. The sixth and seventh variations, *Bluegrass* and *Folk Dance*, are both very high-energy, lively variations that serve as virtuosic technical displays, and demand great facility across the fingerboard. The eighth variation, *Chorale*, provides a much-needed respite from the high-energy variations that preceded it and creates an atmosphere of legato and rich harmonies, again, suggesting that the guitar is able to handle four-part counterpoint, a rare-feat in guitar composition. The ninth variation, *Prelude*, is a Bachian homophonic texture with light undulating arpeggios that leads to the re-capitulation of the theme although it too, is a variation on the original theme.

The entire piece feels like a complete musical statement and a satisfying journey through different musical styles and contrasts. It is a very effective and successful piece that is always met with warm appreciation from audiences.

<div align="center">I sleep and my soul awakens (2005)</div>

I commissioned this quintet for guitar and string quartet by Clark Ross through the Canadian Broadcasting Corporation in 2004 and subsequently performed it with two of Canada's leading string quartets, the Pendrecki String Quartet, with whom I recorded the piece for a live broadcast from Winnipeg, Manitoba, and the Borealis String Quartet, with whom I performed the piece on Canada's west coast.

I sleep and my soul awakens is comprised of a single movement about fifteen minutes in duration. It explores many moods and atmospheres, which relate to the Jungian title of the work. The piece begins in an introspectively somber mood and ends in

a jubilant extended arpeggio section, so the entire work feels like a journey towards the light.

The opening gesture, in which stopped notes alternate with open strings, produces a series of intervals of increasing sizes: minor second, major second, minor third, which reminded the composer of a Beatles song by George Harrison, called *Within You Without You*. This connection is meant to be made explicit in the "very intense" section (mm. 65-72), in which the entire ensemble performs this motive in unison. It is noteworthy that the Beatles song was composed by the guitarist in the group, since this musical idea is so idiomatic to the guitar. Ross did not intentionally quote the motive from Harrison, but once he realized that the motives were so close, he decided to acknowledge this fact in this section of the composition.

Aurore Boreale (2007)

This short but extremely demanding piece was composed for one of today's leading international guitar virtuosi, Brazilian guitarist Fabio Zanon. Mr. Zanon created a project in which he sought to represent guitar music of all the countries of the Americas and has been engaged in actively commissioning composers to compose music that represents their country in sound.

Patrick Roux, one of Canada's best-known guitar composers, largely due to the music he composed for the Canadian Guitar Quartet of which he was a founding member, was commissioned to represent Canada on this collection. Patrick Roux chose the *Aurora Borealis* or Northern Lights, as the source of his musical inspiration and gave the piece this French title to represent his cultural heritage, of French-speaking Canada.

I attended Fabio Zanon's world premiere performance of this piece in Montreal in the spring of 2007 and was inspired to incorporate the piece into my repertoire for a tour of Canada's northern territories, the Yukon, the Northwest Territories, and Nunavut. I have performed the piece dozens of times in locations that are regularly visited by the northern lights and on more than one occasion was able to perform the piece and then observe the majestic natural phenomenon that gave this music its name.

The piece is rhapsodic in form, but a division into an introduction, middle, and epilogue can be easily perceived. The middle section, with its shimmering and restless bass tremolandi supporting a soaring melody, clearly evokes the dancing of the northern lights across the dark winter-night sky. The introduction (mm. 1-24), which is evocative of a French chanson with light jazzy harmonies and a lyrical melody, is meant to represent a general mood of impatient anticipation. This is followed by eight measures of transition, featuring very high artificial harmonic sounds, which clearly represent a clear night sky full of shining stars. The middle section (mm. 32-50) is a constantly rising progression, towards the highest register of the guitar while maintaining a bass tremolando full of demanding extensions and quick shifts and at the same time maintains a singing melody in the top voice.

The epilogue, which features a flowing and virtuosic transition (mm. 51-57) and a nostalgic section (mm. 58-70), represents the afterglow and the feeling of loss that accompany the disappearance of the northern lights. The nostalgic section contains a descending bass line and a melodic line that is sentimental and also reminiscent of the opening material. The final artificial harmonics again represent the night sky, now devoid of the centerpiece of the Aurora Borealis.

Emptying (Sonata) 2007

The four-movement guitar-sonata *Emptying* by Roddy Ellias draws on Ellias'

background as a jazz and commercial music performer. Ellias is a very versatile

composer, whose music has been performed by many of the world's leading musicians in

both the Classical music and jazz realms. This sonata, written in 2007, is a rare solo work

in Ellias' output. He has written many chamber music pieces for multiple guitars, as well

as music for guitar and other instruments, including a sextet for guitar, voice, and string

quartet.

The first movement, *Flowing*, is in a rough A-B-A form and is metrically

unsettled with the time signature changing in almost every measure throughout the

movement. The opening six measures function as a monophonic introduction that feels

exploratory and uncertain. This opening phrase features a pedal point of harmonic D and

a series of increasing melodic intervals: fourth to fifth; fourth to sixth; fourth to seventh;

etc. The series of melodic intervals is taken up in the following six measures (mm. 7-12)

now doubled as sixths, following a similar increasing interval pattern, while at the same

time, the bass pedal slowly descends stepwise to the guitar's lowest pitch. This gives way

to the main section (mm. 13-27), which is characterized by a bass ostinato (E-G-C, G-D-

Eb) based on the opening idea. The opening material returns after a three-measure re-

transition (mm. 28-30). The second phrase material appears first (mm. 31-32) followed

by the opening phrase, transformed into a coda (mm. 33-40).

The second movement, *Shuffle Boogie*, pays homage to the electric guitar style of

the "rockabilly" musicians of the 1950s and to electric guitar players such as Carl

Perkins, Chet Atkins, and others who have popularized the shuffle style.

One of the distinctive characteristics of players of this style is the use of more than just a pick in the right hand. Often these players would employ a thumb pick, which would enable them to use a combination of one or two fingers in addition to the thumb on which the pick is worn. The thumb would play the characteristic bass lines, while the additional finger (or fingers) would be responsible for the higher strings. Ellias also pays homage to the blues, which makes its appearance in mm. 47-58 and later in mm. 120-134. The typical dominant chords associated with the blues are found in the first bluesy section (mm. 47-58) while the second appearance of the chords features the so-called "sharp ninth" chords, which mix modes by including both the major and minor thirds, popularized by guitarists such as Jimi Hendrix in the 1970s. These chords appear frequently in the final section (mm. 120-142) and the coda (mm. 143-155).

The third movement, *Chorale*, is calm and rhythmically free, reminiscent of the feel of the first movement. Here, too, we encounter frequent metric changes to achieve this effect. There are many instances of extended harmonies, with suspensions and added notes, such as ninths chords (m. 5, m. 9, m. 12 etc.), thirteenth chords (e.g. m. 11, second quartet note) raised fifths (m. 9, second quarter note, etc.) These harmonies lend the movement a strong jazzy flavor, which serves as a calm transition to the final movement.

The fourth movement, *Dancing*, is a high-energy, virtuosic toccata-like finale. It is a highly rhythmic and exciting movement with many syncopated accents throughout. This movement evokes other popular music styles, such as funk (m. 96), and also recalls the first movement (mm. 139-152).

A highly idiomatic and very energetic coda brings the piece to a close with a series of parallel chords and open strings that build to a final climax on the highest voicing possible on the guitar of an A minor chord.

Minimusica (15 concert studies for Classical Guitar) (2005)

John Oliver's concert studies were written from 1980 to 1985, but were revised and published twenty years later in 2005. The studies are divided into five three-study groups, each focusing on a different challenge.

The first group, *Continuum,* is devoted to arpeggios. The composer chooses advanced arpeggio patterns that include more than four notes, thus they call for finger crossings or other advanced solutions, which are discussed later in this document. These advanced patterns are set in challenging rhythmic groupings that aim to improve the player's control of accentuation, evenness, and control in right-hand arpeggios. The second group, *Harmonium*, is devoted to the integration of skills and emphasizes polyphony and octaves. These studies combine slurs and harmonics, intricate right-hand fingerings, as well as voice separation between the right-hand fingers. The *Aequum* studies focus on slurs technique and are a left-hand workout featuring various groupings of slurred notes in a variety of contexts that challenge the hand with stretches, slurs to and from open strings, and an emphasis on the little finger. The *Nocturnuum* group is devoted to harmonics, both natural and artificial. The player is asked to produce chords in harmonics and produce natural harmonics in all the traditional locations, demanding accuracy and precision of articulation and attack. The final group of studies, *Reliquiarum*, deals with other miscellaneous advanced techniques in integrated contexts. These are

14

essentially concert pieces with specific musical or technical challenges, such as extended

positions (stretches) or by-metric accentuation and polyphony.

Chapter 2: POSITIONS

Similar to the bowed strings, each of the 19 positions on the guitar are defined by the placement of the hand… Each half-step interval defines a new position. The position location is defined according to the placement of the first finger. For example: If the first finger is placed on the first fret which allows for the other three fingers to be placed comfortably on the next higher three frets, the hand is in first position.[9]

Left Hand Position: Fret-Span and Hand Alignments

In order to understand how guitarists approach left hand positions, it is helpful to begin by defining what is meant by the term position, and what guitarists consider a practical fret-span, or range for the left hand. I will begin by reviewing the writings by Kachian, Iznaola, and Bream on this topic.

Ricardo Iznaola[10] agrees with Kachian's definition (above), that the typical, or normal hand span is four frets and further explains that he considers that in first and second positions the four-fret span actually feels like a stretch or extension, because of the increased distance between the frets:

Technically, a so-called *stretch* or extension, in the horizontal plane, is any hand position demanding a finger separation bigger than the normal four-fret span. Considered physiologically, it is a partial or total finger extension, combined with greater or lesser degrees of finger abduction. This distinction is an important one to keep in mind when dealing with passages where, though the position is, technically, 'normal', the hand is physiologically, stretched. This happens in the first and second positions and, depending on the size of the instrument relative to the player, even the third or fourth.[11]

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[9] Kachian (2006), 10

[10] Ricardo Iznaola, "Left Hand Technique & the Limits of the Possible," *Guitar Forum* 1, (2001): 1–44.

[11] Iznaola (2001), 10

Iznaola also explains the concept of hand alignment and identifies two basic types of alignment based on two imaginary diagonal lines that the fingers draw across the neck of the guitar. He simply calls them alignment A and alignment B. In alignment A, the higher-numbered fingers are playing on higher-numbered frets, on the higher pitched strings. In alignment B, the difference is that the higher-numbered fingers are playing on higher-numbered frets on the lower pitched strings. These two alignments are depicted in figure 2.1 with the numbers referring to left hand finger numbers.
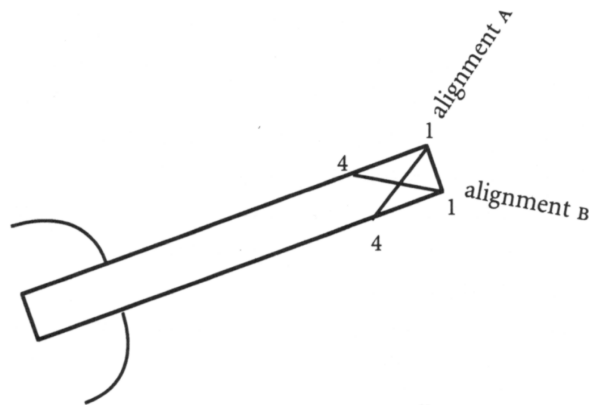
Figure 2.1: diagram representing Iznaola's hand alignments A and B[12]

By Iznaola's definition, an extension could be either horizontal with four fingers on more than four frets or vertical with fingers on more than four strings. Conversely, a contraction would be when the four fingers have to fit into a lesser number of frets or strings.

Julian Bream[13] states that the average span of the left hand is limited to five or six frets and provides the diagram in figure 2.2 to illustrate the available ranges in first, fifth,

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[12] Iznaola (2001), 9

[13] Bream (2003), 3

17

and tenth position. In first position, the span is five frets, in fifth it is six frets and in tenth position it can extend to seven frets[14].
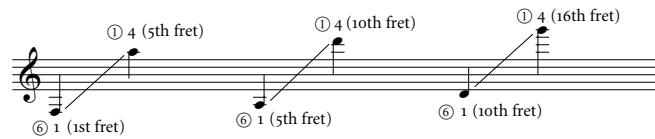
Figure 2.2: available note range in first, fifth and tenth positions[15]

This means that while the available range that Bream writes about is definitely possible, this range does include stretch extensions, and therefore an added level of difficulty. Guitar composers are keenly aware of the four-fret span as the 'normal' position and compose with that left hand span in mind, as will be shown in the discussion below.

The finale from Roddy Ellias' *Emptying*, and the scherzo variation from Clark Ross' *McGillicudy's Rant* illustrate how a guitarist-composer applies these considerations. These virtuosic and energetic selections can be seen as case studies in idiomatic usages of hand spans and alignments.

The high intensity and velocity of the finale movement (IV-Dancing) of Roddy Ellias' sonata *Emptying* demand that the music be written in as idiomatic a way as possible. Therefore, Ellias follows the four-fret span guideline very closely throughout the movement and also makes extensive use of the diagonal presentation of the hand following Iznaola's alignment A.

Iznaola[16] has defined alignment A as the one in which the higher-numbered fingers are placed on the higher-numbered frets on the higher-sounding strings (e.g.:

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[14] It is helpful to note that when Bream writes about the ranges available in various positions, he gives very general guidelines to composers who have no experience with the guitar, and so he does not discuss any difficulties associated with stretch-extensions etc.

[15] Bream (2003), 3

finger 1 on F on the sixth string, finger 4 on B on the third string). Alignment B is the

opposite (e.g.: finger 1 on G# on the third string, finger 4 on G# on the sixth string).

Figures 2.1 and Figure 2.2 provide examples of possible notes in alignment A and

alignment B respectively.

Example 2.1: possible notes in alignment A
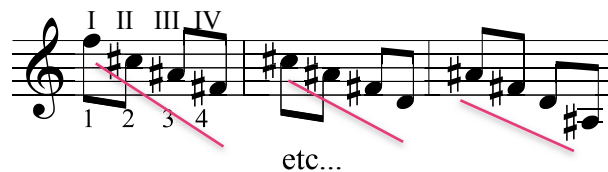
Example 2.2 possible notes in alignment B

The diagonal presentation can increase or decrease the intervallic relationship of the

strings by semitones depending on the direction of the diagonal line that the fingers

outline. The diagonal presentation A is the more idiomatic of the two due to the fact that

the shortest finger is required to play closest to the first string, which is the shortest reach.

Alignment A augments the intervals between the strings from fourths to augmented

fourths (tritones) except between strings ③ and ② where the interval becomes a fourth,

while alignment B diminishes the intervals to major thirds and a minor third between

strings ③ and ②.

While there are examples of both presentations in this movement, presentation A

is the predominant one used, giving the movement its characteristic "diabolic" tritone

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[16] Iznaola, 2001, 8

sound. The sonority of the tritone appears early in the movement (m. 3), and it permeates the texture. By m. 24, all six available tritones appear.

The idiomatic nature of this movement is greatly enhanced by the predominantly arpeggio-based texture. Therefore, the right hand pattern is often p-i-m or p-i-m-a where each finger plays a separate string. The combination of arpeggio patterns and a diagonal presentation is highly idiomatic. The diagonal shape is very effective in shifting as well, and Ellias utilizes this to great effect throughout the movement. Example 2.3 presents a passage from the coda where Ellias uses the diagonal alignment A in a fixed chord shape moving in a parallel fashion between the sixth and first positions.

Example 2.3: Alignment A in parallel chords in the coda to the
fourth movement *Dancing* of *Emptying* by Roddy Ellias

As far as the hand span is concerned, Ellias often uses a three-fret span, especially in the lower positions, where the increased distance between the frets makes the four-fret positions feel stretched. This allows the fourth finger often to play within the same fret as the third finger but on a different string. Example 2.4 presents a three-fret hand span in the opening measures of the fourth movement and three-string arpeggios utilizing alignment A within a three-fret span. Example 2.5 presents a series of three-string arpeggios in alignment A in various positions, that are identified by a Roman numeral.

Example 2.4: Three-fret hand span and Alignment A arpeggios in
***Dancing* from *Emptying* by Roddy Ellias (mm.1–4)**
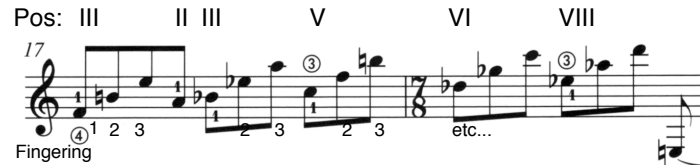
Example 2.5: Series of three-string arpeggios in Alignment A in
***Dancing* from *Emptying* by Roddy Ellias (mm.17–18)**

Note that the same fingering applies to each three-note group. This is discussed later, in the context of parallel chords. The three fingers used are placed on three consecutive frets. In this example, the writing does not appear to be chordal, but in effect, there will be an overlapping sonority in which each group of three notes would co-ring as a harmony as in an arpeggio.

In example 2.6 the four fingers are placed on four consecutive frets with six of the seven chords having the same fingering "shape." The difference between them is only in the positions in which they are played. The positions are identified by the Roman numeral above the score.

Example 2.6: Parallel chords in *Dancing* from
***Emptying* by Roddy Ellias (mm. 26–28)**

21

The only exception is the second chord in m. 27 in which the shape of the hand is different. This chord employs only the first and fourth fingers thus it has a different shape; but it still an example of alignment A.

Example 2.7 presents the scherzo variation in *McGillicuddy's Rant*. The score is marked according to Iznaola's alignment type: the blue lines represent alignment A while the red lines represent alignment B. As can be seen, the two alignments are more or less equally represented.

Variation 3 – Scherzo

Example 2.7: Alignments A and B identified in
Variation 3– *Scherzo* from *McGillicuddy's Rant* by Clark Ross

From an instrumental or technical point of view, the Scherzo variation plays with the two opposing diagonal alignments quite ingeniously incorporating open strings into the diagonal alignments for variety and dissonance. The inclusion of the open strings in addition to the comfortable and idiomatic left-hand alignments go a long way towards making this variation feel as playful as it is supposed to sound. The hand span used is predominantly a four-fret span, as can be gleaned from the fingerings the composer provides. This too, contributes to the idiomatic feel of the variation.

From a musical perspective, it is helpful to recognize the contribution that the hand alignments make to the harmonic vocabulary. If one follows alignment A on consecutive strings, the resulting chords would be made of stacked augmented fourths (except for the third and second strings, where the interval would be a perfect fourth). By the same token, alignment B would yield chords that consist of major thirds between all string pairs except the third and second where it yields a minor third. These two musical sonorities are prevalent in the scherzo.

Another fact that can be observed in example 2.7 is that the span of the hand stays restricted to four frets almost throughout the movement. The importance of maintaining the four-fret span can be best understood by looking at the moments when the composer decides to extend the reach of the hand to include five frets. In other words, the exception that proves the rule. When Ross employs these extensions, he does it for a musical effect. The added technical difficulty that the extensions place on the player is a part of this musical effect, and it is desired that the player slow down and play more deliberately in these moments. Resulting in a labored and deliberate ritenuto that expresses a musical tension.

Left-Hand Extensions (Stretches) and Bareé Technique

Like any rule, the guidelines for hand-span are also meant to have exceptions, which are discussed here. I begin with a discussion of the extensions in the Scherzo variation. There are two five-fret extensions in mm. 59-60 in the Scherzo variation. They occur between the fifth and first strings from the high B on the seventh fret of the first string to the low C, third fret of the fifth string, and from the high A on the first string fifth fret to the Bb on the first fret of the fifth string, see example 2.8. Since these extensions occur over a five-string span, as well as over five frets, they can be considered to be both horizontal and vertical extensions by Iznaola's definition. These two extensions feel quite mild because of the way the composer arrives at them.

In the first case, which is presented in Example 2.8, the fourth finger is in place and the first finger moves away from it. The fourth finger is placed on the seventh fret of the first string, followed by a stretch of the first finger, which moves from the fourth to the third fret of the fifth string. The fact that this occurs in third position, where the frets are closer together compared to first position, coupled with the fact that the first finger does the stretching, makes this moment feel like a relatively mild extension of the left hand.
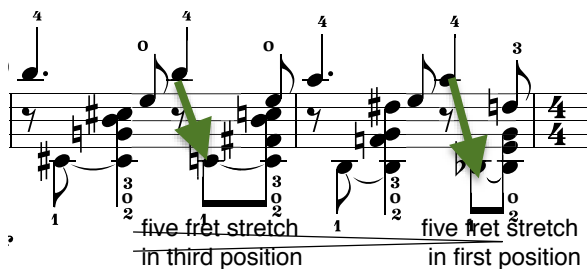
Example 2.8: Five-fret extension in Variation 3: *Scherzo* from *McGillicuddy's Rant* by Clark Ross (mm. 59–60)

Iznaola explains the fact that stretches towards the first finger are easier due to the fact that this finger is more independent: "Given the structure of the hand, with its tendinous attachments linking the last three digits and limiting the mobility of the ring finger, but with a very independent index extensor mechanism, stretches towards the index from a higher-numbered finger are easier than the opposite."[17]

The second extension, or stretch, occurs in the following measure, as can be seen in the example. It is essentially the same situation two frets lower, where the frets are spaced more widely, so this stretch is a bit more demanding. Note that there is a sequence of four descending chords with identical fingerings in these two measures. This parallel progression gradually arrives in first position where the stretch occurs. This gradual progression greatly increases the comfort level of the left hand.

The third exception to the four-fret hand span occurs on the fourth beat of m. 62 where the first finger is on the low Eb (first fret of the sixth string) while the fourth finger has to reach the high A on the fifth fret of the first string. This is a more challenging extension due to the fact that there is a vertical extension across the six strings and the fourth finger is separated from the third as well. The third finger holds the Bb on the third string and the fourth finger has to stretch to the fifth fret of the first string. As Iznaola points out, extensions in which the fourth finger has to separate from the other fingers are more difficult. Notice that the fourth finger is the most active finger in the last two quarter notes of the example. It has to jump from the G on the first string to the D on the second string, and then to the high A, then back to the D, and pluck the open E string in between.

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[17] Iznaola 2001, 12

Example 2.9: A more challenging five-fret extension in
Scherzo **from** *McGillicuddy's Rant* **by Clark Ross (m. 62)**

The composer is well aware of this added difficulty and uses it for musical effect as it happens during a molto ritardando. The deliberate care that a performer would take to prepare the extension goes along with the slowing down of the tempo and the emphatic nature of the crescendo that leads to the a tempo in the following measure.

Patrick Roux's composition *Aurore Boreale* is a good piece for the study of more extreme examples of stretches. Beyond the fact that both composer and dedicatee of this piece are extremely capable technically, they also have very large hands. Therefore, the discussion of stretches and extensions in this piece can be seen as a case study of the outer limits of what is considered technically possible. Example 2.10 presents a horizontal stretch of six frets from the second to the seventh fret. Iznaola points out that even the normal four-fret span would be physiologically a horizontal-extension in the second position. Therefore this six-fret extension significantly exceeds this guideline.

Example 2.10: Six-fret horizontal stretch in
***Aurore Boreale* by Patrick Roux (m. 18)**

Note that the sixth string is tuned to D, therefore the low A has to be played on the seventh fret of the sixth string since the C# is played on the fifth string making it impossible possible to play the open A string. This extended stretch is made a little more playable by the fact that it is possible to place the fourth finger first and then stretch towards the first finger, which has to play the barré on the second fret. However, it is always an added difficulty when a barré position and a stretch in the other fingers occur simultaneously.

Iznaola considers the barré itself to be a type of finger extension; he writes: "The nature of the arm-wrist-hand coordination in extension is similar to that of barré positions. Therefore, the latter should be studied as a subcategory of extension procedures."[18] Patrick Roux's *Aurore Boreale* provides ample opportunity to study finger extensions and barré positions. Julian Bream gives a very good summary of the proper application of the barré:

> The technical device known as the grand barré has great importance in the construction of 'fingerboard harmony'. This is achieved by placing the forefinger of the left hand over all six strings, and so producing, as it were, an adjustable nut [...] Incidentally, whilst the forefinger might be engaged in performing the grand barré it is worth while [*sic*] to remember that the other three fingers can articulate and stop notes at the same time, providing that they are not required to stretch more than four frets higher than the point at which the barré is fixed; and never, never

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[18] Iznaola 2001, 12

expect a guitarist to perform the barré above the tenth fret – he probably would never physically recover if he tried![19]

Therefore, according to Bream's advice, Roux already breaks one of the guidelines in m.18 (example 2.10) by asking the guitarist to place a barré five frets away from the fourth finger. But Roux does not stop there. In m. 33 (example 2.11) the player is asked to perform a more difficult stretch that requires placing a barré on the fourth fret before extending the fourth finger to the ninth fret.
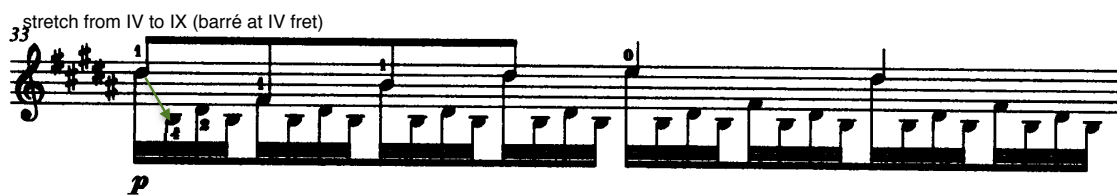
Example 2.11: Five-fret stretch with bareé in
***Aurore Boreale* by Patrick Roux (m. 33)**

And even this more difficult moment is not the farthest departure from Bream's guidelines. Even the guideline to never request a barré above the tenth fret, with a warning of the dire consequences it might bring is ignored! In example 2.12, the guitarist has to perform a partial barré, which covers the top three strings at the fourteenth fret.
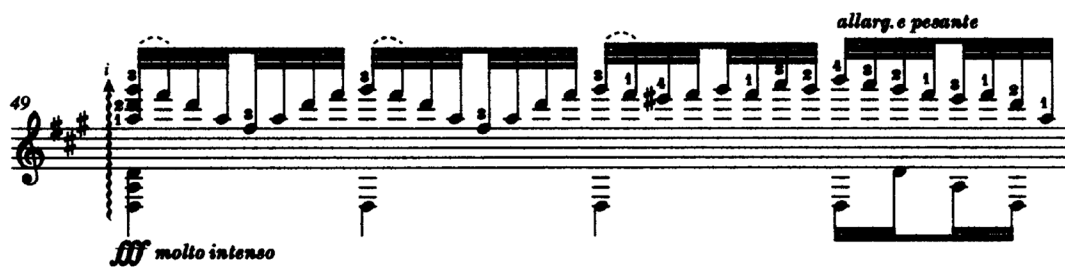
Example 2.12: Partial bareé at the XIV fret in
***Aurore Boreale* by Patrick Roux (m. 49)**

Roux does not mark the need for a barré here, but it is evident from the notes in the passage. There are two notes that must be played on the fourteenth fret, the high A in the

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[19] Bream 2003, 5

initial chord, and the F# on the subsequent 32nd note, which is slurred from the chord. This is not the only time that Roux requests this extreme placement of the barré. In the next measure, which is shown in example 2.13, a partial barré marking appears on both the fourteenth and the thirteenth frets:
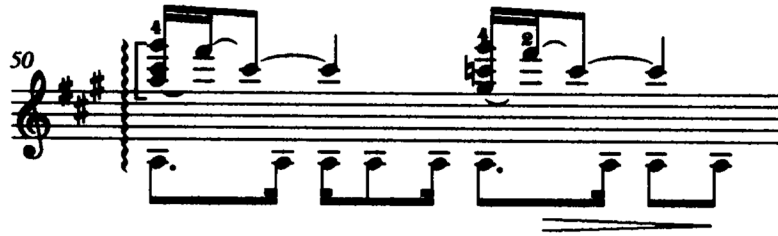
Example 2.13: Partial bareés above the tenth fret in
***Aurore Boreale* by Patrick Roux (m. 50)**

These departures from Bream's guidelines should not be seen as license to follow suit. Having performed this piece on many occasions, I can attest to the fact that these are very challenging moments. A successful performance of these moments is very demanding physically and requires a certain length of fingers or an extremely flexible hand.

It is in exceptional moments such as these that one is reminded of Berlioz's statement about the impossibility of writing for the guitar without being a player. However, such extreme examples can also be encouraging to a composer, because they show that even things beyond these guidelines are possible, especially when collaborating with a player of the instrument.

Left-Hand Contractions (Squeezes)

Iznaola explains that contractions, or squeezes, which rely on finger adduction, are "generally, a more passive digital movement"[20] and that when performed correctly,

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[20] Iznaola 2001, 12

can minimize finger effort. There is no shortage of examples of finger contractions. Examples of horizontal contraction are more interesting since vertical contraction is arguably more of a theoretical concept. Vertical contraction can be said to happen whenever one is engaged in melodic or scalar playing and the majority of the fingers are sharing a single string. Therefore, it is worthwhile to note several instances where the four fingers are placed within one to three frets.

In example 2.14, from the finale of the Ellias sonata *Emptying*, we can see that fingers 2, 3, and 4 are all placed on the second fret of their respective strings (fifth, fourth and third), while the first finger is on the first fret of the sixth.

**Example 2.14: Two-fret left-hand span in *Dancing* from
Emptying by Roddy Ellias (m. 5)**

Similarly, in example 2.15, all four fingers articulate within the span of two adjacent frets, fingers 1 and 2 are responsible for the first fret, while fingers 3 and 4 are both placed on the second fret.

**Example 2.15: Two-fret left-hand span in *Dancing* from
Emptying by Roddy Ellias (m. 20)**

These moments of finger contraction, or squeezes, are not inherently difficult, awkward

or un-idiomatic to the guitar. They are mentioned here as a counter-part to the discussion

on finger stretches, or extensions. Both cases are examples of the range of hand spans

that guitarist-composers might choose to employ beyond the positional concept of the

four-fret frame per position.

> Position changes can present problems when they must cover great distances (guitar
> necks average 17 inches in length) in a smooth manner. This can be alleviated by
> employing an open string pitch to connect groups of notes in distant positions.[21]

Position Changes (Shifts)

Shifting on open strings

A technique that virtually all guitarists utilize is shifting while playing open string

pitches, especially in very active musical contexts where the tempo is fast. This technique

can only be accomplished when open strings are employed in the piece itself. Therefore it

is good to note the frequency with which open-string shifts occur.

In example 2.16, I have circled the open strings and marked the shifts above the

music, noting the position change in Roman numerals. Not every shift in the piece occurs

on an open string, nor is every open string played during shifts, but the vast majority of

the time the occurrence of both coincides.

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[21] Kachian 2006, 12

Variation 6 – Bluegrass

**Example 2.16: Shifts occurring on open strings in
Variation 8: *Bluegrass*, from *McGillicuddy's Rant* by Clark Ross**

This effect, shifting on open strings, is so common that it would be possible to

give examples from virtually all the pieces in this study. I will only cite a few, to make

the case for how useful open strings are in idiomatic writing. Example 2.17 is taken from the Ellias sonata (*Emptying,* IV. mm. 53-55). The shift occurs in m. 55. Note that the second finger plays the F# on the first string second fret (3rd quarter note of the measure) this is followed by four open- string notes (E, B, G, E), and then the second finger plays the G on the second string eighth fret (shifting from first to seventh position).

Example 2.17: Shift on open strings in *Dancing* from
***Emptying* by Roddy Ellias (mm. 53–55)**

The shift in example 2.18 occurs in the seventh variation (*Folk Dance*) of the Ross variations. Note the shift is long (twelve positions) and occurs on a very short note (the open G string, circled, a triplet-sixteenth), demonstrating that even such a quickly played open string can be enough to accomplish the task.
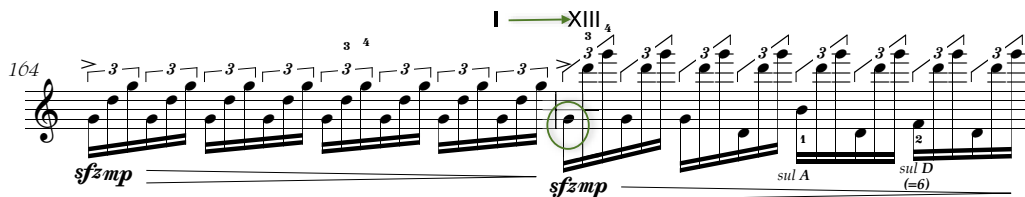
Example 2.18: a very quick shift on open string in Variation 7– *Folk Dance* from
***McGillicuddy's Rant* by Clark Ross (m. 164–165)**

34

Shifts with parallel chords

"Parallel chords" or "moveable chords" are terms to describe a highly idiomatic guitar procedure. In this procedure the left hand fingers maintain a fixed shape that is moved across the neck. Parallel chords are extremely idiomatic on the guitar, due to the fact that the guitarist has multiple guide-fingers to follow during the moments of shifting. A guide-finger is a finger that remains on the same string during the shift. In the case of a parallel chord, all the fingers act as guide-fingers. Sometimes, it is even possible to move a chord in parallel fashion to a different group of strings, maintaining the same fingers-shape but changing strings.

When all the notes of a chord move in parallel motion, the resulting sonority can be jarring, or as Bream points out in the quote below, naïve. Composers traditionally try to avoid parallel movement. However, on the guitar, it is possible to create a different sonority for each chord by involving the open strings. This can be accomplished by mixing the movable movable chords with open strings that act as pedal points. As a result each chord has a different sonic relationship with the open strings, creating variety.

Julian Bream says it clearly in his article, recommending the procedure: "One might argue that artistically this is rather a naïve system of chordal construction, but I can assure the reader that while three notes of every chord remain constant, each chord has its own harmonic character and bears little or no resemblance to the preceding one."[22] There are two instances of parallel chord motion in the *Scherzo* variation of *McGillicuddy's Rant*, and use of this technique is featured more extensively in the following *Bluesy*

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[22] Bream 2003, 5

variation. In the first instance (mm. 59-60), the open E-string and the open G-string are involved. In the second (m. 64), Ross uses the open B and E strings in the top voice to disguise the parallel movement of the fingers.

**Example 2.19: Parallel chord movement in
Variation 3: *Scherzo* from *McGillicuddy's Rant* by Clark Ross (m. 64)**

The second chord in the *Bluesy* variation gets treated with the parallel movement procedure. As shown in example 2.20 the composer creates variety by using arpeggiation and rhythmic figuration, while the pitches all move in parallel motion.

**Example 2.20: Parallel chords with arpeggiation and rhythmic variation in
Bluesy from *McGillicuddy's Rant* by Clark Ross (m. 72–76)**

Note that in the final measure of example 2.20 (m. 77) the entire chord shape is moved vertically from the top four strings to the fifth through the second strings. This

36

type of parallel motion is even more difficult to detect by ear, as it produces a different chord-type despite the fact that its shape is identical to the previous one. This parallel chord motion appears in two other moments in the variation, echoing the ideas from the introduction. Examples 2.21 and 2.22 represent these two moments.
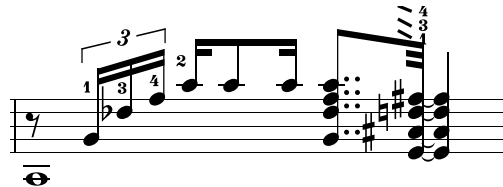
Example 2.21: Parallel chord shift in
McGillicuddy's Rant **by Clark Ross (m.92)**
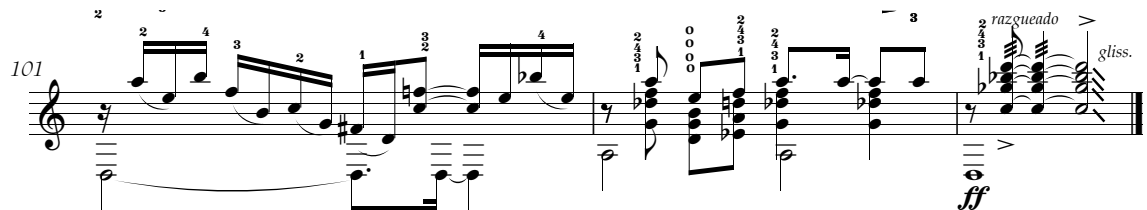
Example 2.22: Parallel chord shift in
McGillicuddy's Rant **by Clark Ross (mm. 101–103)**

The coda from Ellias' *Emptying* Sonata is fertile ground for the investigation of parallel movements. In example 2.23, I have identified the types of parallel movements using arrows. Red arrows denote a guide finger on the same string. Blue arrows denote a parallel movement with a change of fingering where the intervals are nonetheless parallel between all the notes involved. Green arrows denote parallel chords that are shifted to different strings. Note that virtually the entire coda is constructed from parallel chords. This allows the player to raise the level of energy in the playing and build to an exciting and climactic ending.

37

**Example 2.23: Parallel chords movement shown using arrows
in *Dancing* from *Emptying* by Roddy Ellias (coda)**

The prevalence of parallel chords is such that it is not difficult to find examples of

it in many pieces. Guitarist-composers have often used this technique so extensively that

entire sections of a piece could be built using just one chord that moves in parallel motion throughout. This technique is normally associated with the Brazilian composer and guitarist Heitor Villa-Lobos. The generations of composers that have come since Villa-Lobos' time have followed his lead. This naturally includes the composers in this study, two of whose works have already been mentioned in the discussion so far. Clark Ross and Roddy Ellias have both used this technique extensively in their music. However, the next composer to be discussed has provided an even more extensive example of this technique.

John Oliver composed an entire piece using parallel chord technique. Oliver's arpeggio study, *Continuum 1* is built entirely on one chord shape, which utilizes fingers 2,3, and 4. This fixed shape is moved around the fretboard, with the three fingers acting as three guide-fingers throughout. Each two measures use the same chord position, and the shifts between the positions vary from one to ten frets in length. Example 2.24 presents two consecutive parallel chord shifts: a one-fret descent and a ten-fret ascent.

Example 2.24: Parallel chord shifts in
Continuum 1 from *Minimusica* by John Oliver (mm. 25-30)

Chapter 3: TEXTURE

In spite of the guitar's relatively brief capacity to sustain, single-voice melodies are an effective use of the robust overtones of the instrument. This is particularly true of the heavier gauge third and the metal-wrapped bass strings. A clear advantage of single-line writing is that there are virtually none of the tempo or fingerings restrictions that occur in thicker textures. The hand is relatively unburdened and can achieve any articulation and timbre desired. The over-reliance on single-line writing, however, should be avoided[23].

Monophony

Kachian describes the use of monophonic textures as potentially effective, but warns that it is not a good idea to over-use this technique. The instances of monophonic writing in the works discussed are relatively limited in number and length, as recommended by Kachian. The sonata *Emptying* by Ellias opens with a monophonic texture (see ex. 3.1). Ellias creates a pedal point on the octave harmonic D on the fourth string and also employs the G octave harmonic to create a sustained texture that suggests more than a single voice.

Example 3.1: Monophonic texture in
***Emptying*, I. by Roddy Ellias (mm. 1–6)**

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[23] Kachian 2006, 13

As is Kachian's advice, Ellias does not linger on this texture, avoiding monophony until the very end of the movement, where he again employs this effect for the final eight measures (mm. 33-40, see ex. 3.2). At this point, the G harmonic is employed more prominently, and in fact it momentarily becomes the new pedal point (mm. 34–36).
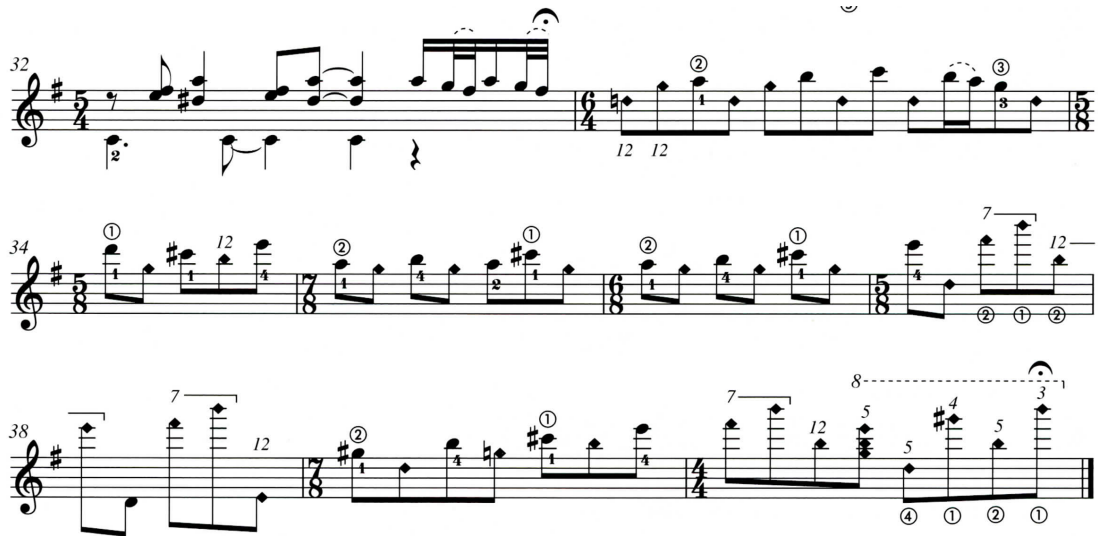
Example 3.2: Monophonic texture in *Calm* from
***Emptying* by Roddy Ellias (mm. 32–40)**

Other noteworthy instances of the use of homophonic textures in this repertoire are found in Ross' quintet *I Sleep and my soul awakens* for guitar and string quartet. Here, we find examples of melodic writing using the richer sonority of the lower range strings of the guitar, as described by Kachian.

Example 3.3: Monophonic texture in "Very intense" section from
***I sleep and my soul awakens* by Clark Ross (mm. 65–69)**

In example 3.3 the homophonic texture in the guitar is part of the unison of the ensemble. The guitar part clearly echoes the articulation and dynamics of the bowed instruments. The guitar line is played largely on the fifth string, taking full advantage of the richer tone color of the metal-wound bass string. The guitar part is written in a predominantly monophonic texture throughout, although it is often an arpeggiated texture. Instances that stand out for their use of the monophonic writing are found particularly in the guitar solos as shown in example 3.4.
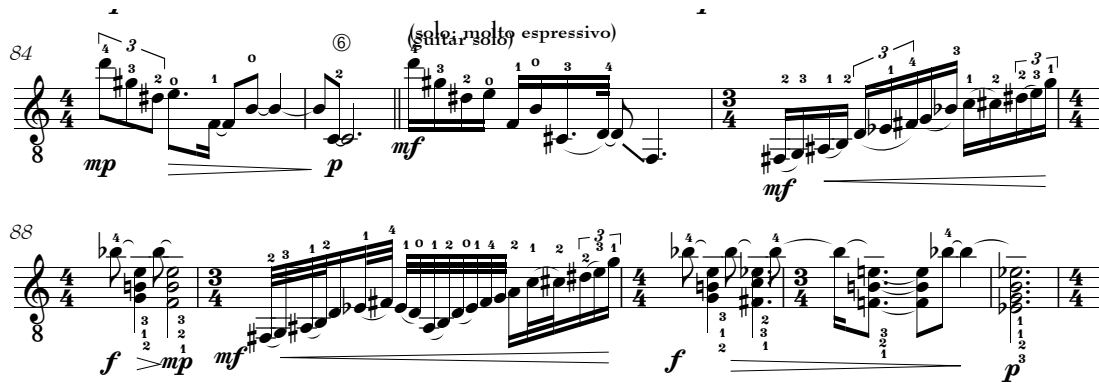
Example 3.4: First guitar solo section from
I sleep and my soul awakens **by Clark Ross (mm. 84–91)**

In example 3.4, from the first guitar solo, Ross alternates between a monophonic texture (mm. 84–87, and 89) and a chordal sonority (m. 88 and mm. 90–92). The writing employs all six strings in the monophonic measures, but the sound of the lower strings does receive special attention especially in the second half of m. 86, which features the long portamento on the sixth string. In the second solo, shown in example 3.5, there is a little more emphasis on the bass strings and portamenti are again called for.

Example 3.5: Second guitar solo from
I sleep and my soul awakens **by Clark Ross (mm. 114–127)**

44

Differentiating between Arpeggio and Cross-String Fingering

Kachian states that there are two types of arpeggios[24], essentially making a distinction between arpeggios in which the left hand holds a fixed chord and arpeggios in which the left hand is mobile. Kachian's description of the right-hand arpeggio echoes Bream's remark: "The only limits on the variety of ways to play this type of arpeggio [fixed-chord, right-hand type] are the six strings of the guitar and the four right-hand fingers that pluck them"[25]. Bream also writes that:

> Of all the musical techniques most suited to the instrument, the *arpeggio* is probably the most beautiful and evocative. There are many varieties of *arpeggi;* in fact, as many permutations between six strings and four plucking fingers as you would like to use[26]

The other type of arpeggio "employs position changes over a large span of the fretboard. This version requires the left hand to be an equal partner with the right hand in execution". He goes on to recommend that in this type of arpeggio, open strings can be very useful at the moment of shifting. This second type of arpeggio, in which the left hand is an equal partner, involves issues of shifting and slurring. Groups of notes that are played on the same string in this type of arpeggio are often slurred. Therefore the discussion on these techniques also covers this left-hand arpeggio. The left-hand arpeggio can be thought of as violin-like, whereas the right-hand arpeggio can be thought of as harp-like. The "permutations between six strings and four plucking fingers"[27] that Bream writes about usually include at least three fingers, the thumb and at least two out of the other three plucking fingers (index, middle, and ring). The number of strings involved

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[24] Kachian 2006, 16
[25] Bream 2003, 6
[26] Ibid
[27] Ibid

45

also can vary, but it is usually equal or greater than the number of fingers involved, with the thumb frequently covering multiple strings.

Sometimes, passages are written in an arpeggio-like manner, using multiple right-hand fingers and many strings, without necessarily playing a chordal function. I make a distinction between this type of passages and other arpeggios by referring to these passages as "cross-string" fingerings rather than arpeggios. I would like to focus on Clark Ross' guitar quintet *I sleep and my soul awakens* to illustrate these two types of guitaristic textures, which occur frequently in the guitar literature.

Example 3.6, from the opening of Clark Ross' *I sleep and my soul awakens* shows the main melodic idea of the piece, which is presented in cross-string fingering technique.

Example 3.6: Opening of *I sleep and my soul awakens* by Clark Ross (mm.1–8)

Open strings are interspersed between the stopped notes. Thus each note in the first group (mm. 1–2) is played on a different string, creating a smooth legato while playing melodic, rather than harmonic material in a harp-like manner. Example 3.7 also includes some arpeggios that form chords or harmony (mm. 16–19).

Example 3.7: Cross-string and arpeggio textures in
I sleep and my soul awakens **by Clark Ross (mm. 13–19)**

In the following two sections, I will illustrate the different uses of these related

textures and show how guitar composers use these textures idiomatically to create

effective and varied sonorities.

> *Arpeggi* as a general rule must sound fluent and facile. The guitarist would be more
> than delighted if the 'core' of the *arpeggio* fell on adjacent strings, thus enabling
> him to 'throw it off' and concentrate on other things, particularly if melodic interest
> is also involved.[28]

Arpeggio

Kachian states that: "Arpeggios on chords that either remain in one position,

move in parallel fashion, or repeat a pattern over a chord progression are common. These

are most successful when most of an arpeggio falls on adjacent strings."[29] The reason that

adjacent strings are recommended is to make the work of the index, middle, and ring

fingers most comfortable. Separating the fingers hampers their mobility. The thumb,

however, is quite independent of the fingers, and can therefore be responsible for

multiple strings, which are often not adjacent to the core of the arpeggio. As Bream

wrote:

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[28] Bream 2003, 6
[29] Kachian 2006, 17

47

In determining the form of an *arpeggio,* it is worthwhile to note that the right-hand thumb generally controls the fourth, fifth and sixth strings, and the remaining three fingers the third, second and first strings respectively. This explains why there is often a gap of one or two strings between the tenor and bass notes of a guitar *arpeggio,* because the thumb has greater maneuverability than the fingers and is physically more independent. Occasionally, however, it is necessary for the fingers to work in conjunction with the thumb on the bass strings, as, for example, in these *arpeggio* figures which require such rapidity over all six strings that the thumb would fail to cope over its bass territory.[30]

The arpeggios in the Ross' *I sleep and my soul awakens* serve as good example of the application of these guidelines by Bream and Kachian. A good arpeggio passage to examine is shown example 3.8 (mm. 49–58).
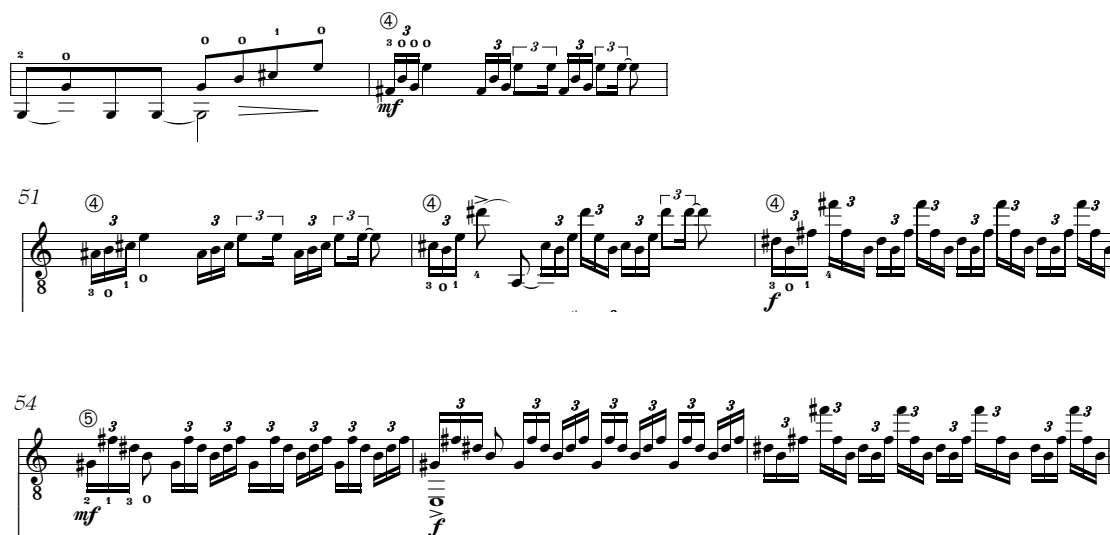
**Example 3.8: Arpeggios from *I sleep and my soul awakens* by
Clark Ross (mm. 49–58)**

The core of the arpeggio is on adjacent strings, and the fingerings correspond to Bream's recommendation above. In Examples 3.9-3.13 I have re-notated the arpeggio patterns using the notes of the open strings and have added a right hand fingering below the open string realizations of these arpeggio patterns to exemplify this concept. The thumb covers the fourth fifth and sixth strings, while the other fingers (i-m-a) are

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[30] Bream 2003, 7

responsible for the third, second, and first strings respectively. In mm. 54–55, the right hand shifts one string lower. The ring finger takes the second string. This arpeggio section starts with the arpeggio in example 3.9.
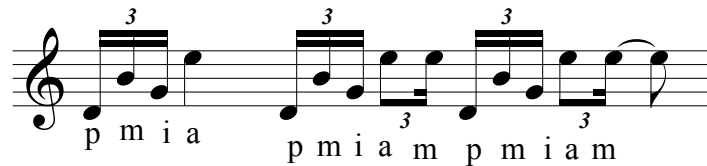
Example 3.9: Arpeggio in m. 51 of *I sleep and my soul awakens* by Clark Ross re-notated with open strings
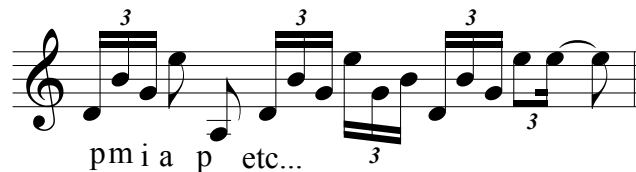
Example 3.10: Arpeggio in m. 52 of *I sleep and my soul awakens* by Clark Ross re-notated with open strings

The above pattern develops into the pattern found in measures m. 53 and mm. 56–58, as shown in example 3.11.
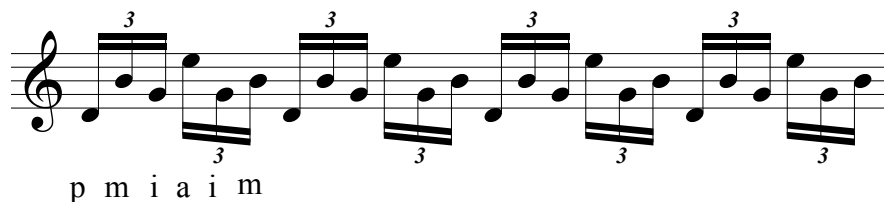
Example 3.11: Arpeggio in m. 53 and mm. 56–58 of *I sleep and my soul awakens* by Clark Ross re-notated with open strings

The pattern in example 3.12 (m. 54) is shifted to the fifth through the second strings and also features a minor rhythmic variation.

p i p m p i p mp i
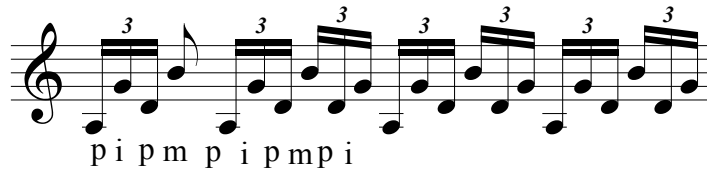
Example 3.12: Arpeggio in m. 53 and mm. 56–58 of *I sleep and my soul awakens* by Clark Ross re-notated with open strings

This pattern is continued in example 3.13 (m. 55), which utilizes essentially the same

pattern with a double thumb stroke that covers the sixth and fifth strings on the downbeat.

p i p m etc...
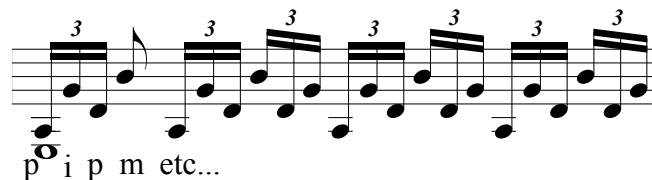
Example 3.13: Arpeggio in m. 55 of *I sleep and my soul awakens* by Clark Ross re-notated with open strings

This arpeggio passage in example 3.8 clearly serves a harmonic purpose. It

provides harmonic support for the four bowed instruments that play melodically.

Fragments of the main motive are scattered throughout the string quartet parts in these

measures. In the guitar part, the notes of each measure co-ring to form chords. The notes

in m. 51 are clearly derived from the main motive, which can also be interpreted as a

harmony in this context. Example 3.14 shows a harmonic reduction of the measures in

example 3.8.

Example 3.14: Harmonic reduction of Arpeggios in mm. 49–58 from *I sleep and my soul awakens* by Clark Ross

The final arpeggio passage that concludes the piece (mm. 163–208) is another example of these arpeggio-writing principles. The principle string pattern, shown in example 3.15 is identical to the one used in m. 53 and mm. 56–58.
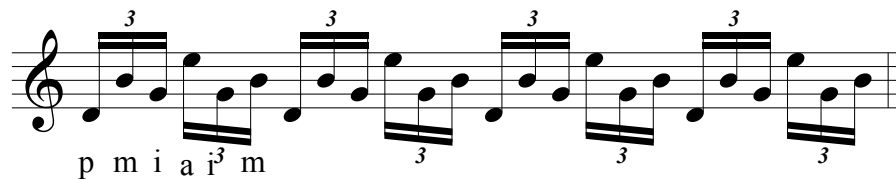
Example 3.15: Principle arpeggio pattern in mm. 163–208 of *I sleep and my soul awakens* by Clark Ross re-notated with open strings

The second string remains open throughout most of the passage. The thumb does occasionally travel to the fifth and sixth strings, and the string pattern does change at a few points, but it always returns to the principal pattern. This consistency in the arpeggio pattern adds to the momentum of this section, enabling the player to comfortably play increasingly loud dynamics at a fast tempo. In other words, this section satisfies Bream's requirement that the arpeggio be fluent and facile.

In the case of this piece, the guitar arpeggio is the energizing element and the glue that holds the quintet together, so it is vital that it be written idiomatically and is comfortable to perform. The fact that the core of the arpeggio is consistently on adjacent strings, that there is one note per string, that the thumb is responsible for the basses, and the fingers are responsible for the top three strings all combine to make this final section idiomatic and effective.

The left hand benefits from this idiomatic writing as well. It is very helpful that the pattern ends on the second string, which is played open most of the time, since that greatly aids in shifting and finger changes. In example 3.16 note the shifts in mm.164–

51

165 from the second position (m.164) to the sixth position on the downbeat of m. 165, to

the ninth position on the third beat of that measure, and immediately back to the second

position for the downbeat of m.166, can all be accomplished thanks to the fact that the

shift can happen while the open string is played. This clearly recalls Kachian's

recommendation that position changes in arpeggios occur on open strings.

Example 3.16: *I sleep and my soul awakens* **by Clark Ross (mm. 164–166)**

There are, however, several departures from the main arpeggio pattern. These

departures are worth investigating, as they illustrate some of the increased difficulties that

result from not adhering to the concepts discussed thus far. Example 3.17 shows one such

moment (m. 173).

Example 3.17: *I sleep and my soul awakens* **by Clark Ross (m. 173)**

There is a change in the pattern here with a different order of strings in the fourth group

of triplets. The string order is ①②③ instead of the usual ①③②. This seemingly minor

variation makes the measure less comfortable to perform. If one plays the A on the fourth

string, as was the case in the third group, there would be two consecutive notes on the

same string (A-G#) that would be audible as a different sonority from the rest of the

arpeggio. It would also be more difficult to play at the arpeggio tempo since repeated

thumb strokes are usually not as facile as an arpeggio. Another solution is to play that

eight note with the A on the 3rd string, creating a ①②③ string pattern, which is more

52

idiomatic, but requires a momentary change in the arpeggio. This is not uncommon, but it would require a little more attention, or practice, to perform cleanly.

Example 3.18 (m. 181) shows a new arpeggio pattern emerging, in which there are moving lines on both the second and the fourth strings. The pattern itself is idiomatic, as shown in example 3.19 but it is different from the main pattern, and as a result, the change of pattern would require practice. It is helpful that the entire measure is repeated, so that the second pattern has a chance to build momentum as well.
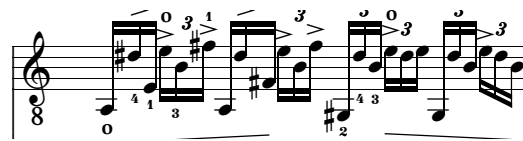
Example 3.18: *I sleep and my soul awakens* by Clark Ross (m. 181)
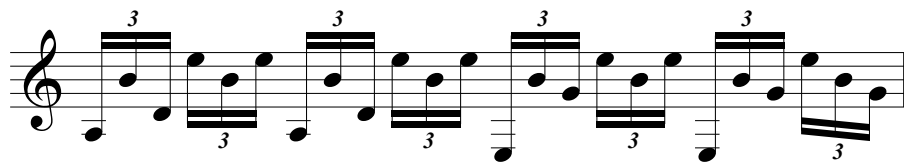
Example 3.19: Arpeggio pattern from example 3.18 re-notated with open strings

These departures from the established arpeggio pattern demonstrate that a passage can remain idiomatic even when exceptions are made to the guidelines. However, these departures do add an element of challenge, since the guitarist's ability to "toss off" the arpeggio, as Bream put it, is somewhat compromised.

In John Oliver's *Minimusica* studies, the arpeggio technique is explored in the sub-group of studies that he calls *Continuum1–3*. John Oliver explains that: "A balanced,

even arpeggio is the sign of a healthy well-developed right hand"[31]. Oliver's arpeggio

patterns are excellent examples of Julian Bream's advice. They utilize adjacent strings,

and they proceed in order from one string to the next, as opposed to the arpeggios in the

Ross quintet, which created patterns involving string skips. Each string is assigned a

specific right hand finger, except for the thumb, which is responsible for multiple bass

strings. The first *Continuum* study alternates two arpeggio patterns: an eight-note pattern

in four-four time-signature (see example 3.20), and a six-note arpeggio in the compound

meters of 12/16 and 15/16 (see example 3.21). Examples 3.22 and 3.23 illustrate these

two arpeggio patterns respectively on open strings.

Example 3.20: Eight-note arpeggio pattern from
***Continuum 1* in *Minimusica* by John Oliver (m. 1)**

Example 3.21: Six-note arpeggio pattern from
***Continuum 1* in *Minimusica* by John Oliver (m. 2)**

Example 3.22: Eight-note arpeggio pattern from
example 3.20 re-notated on open strings

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[31] John Oliver *Minimusica: 15 Concert Studies for Classical Guitar.* (Vancouver: Johnolivermusic.com),i
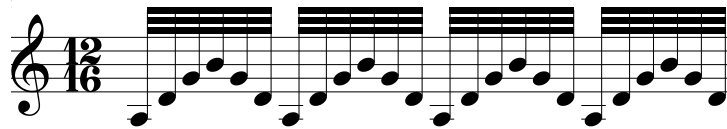
**Example 3.23: six-note arpeggio pattern from
example 3.21 re-notated on open strings**

The six-note pattern easily fits the four fingers of the right hand. Fingers i-m-a are responsible for the fourth, third, and second strings respectively, while the thumb plays the fifth and sixth strings. However, the eight-note pattern exceeds the right hand position described above, necessitating the employment of one of three possible right hand fingerings that are suggested by the composer: 1) cross-over "m" on top string (the m finger plays on both the third and the first strings); 2) use of little finger "c" (the little finger is not used, traditionally, in classical guitar technique); 3) the "i" drag technique (the index finger is used repeatedly on successive strings, by being "dragged" across the group of strings). Therefore the eight-note pattern is more demanding than the arpeggios described in Bream's guidelines. This is an advanced technique, and this is evidenced by the fact that John Oliver devotes an entire study to mastering it. In order to allow the guitarist to concentrate on the added challenge of the right hand, the left hand in this study is extremely simple, maintaining parallel shapes throughout the study. It is noteworthy that Kachian makes the observation that parallel chord movement in arpeggio passages is common[32]. Throughout the piece, fingers three, two, and four of the left hand maintain the same shape. The first finger, when it plays, is added to this shape to produce a bass note.

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[32] Kachian 2006, 13

Oliver's second arpeggio study is focused entirely on the relationship of the thumb and fingers. The three plucking fingers maintain only one pattern in this study: i-m-a-m-i on the top three strings. The strings order is always ③②①②③. The thumb however, plays a dual role. The thumb plucks at the beginning of the pattern, which is very common, the thumb also plucks simultaneously with different fingers within the arpeggio pattern. This is a much more challenging role, since the thumb is a strong finger and there could be a tendency to accent the note that is played simultaneously with the thumb every time. This clearly is not what the composer intends here, rather, evenness of sound and accent is desired. Example 3.24 shows the first pattern, in which the thumb plays first, followed by the fingers.

Example 3.24: First arpeggio pattern in *Continuum 2* from *Minimusica* by John Oliver (m. 1)

Example 3.25 shows a pattern where the thumb plays simultaneously with the "m" finger. Example 3.26 shows the third type of pattern, where the thumb plays simultaneously with the "a" finger, in the first two beats of the measure.

Example 3.25: Second arpeggio pattern in *Continuum 2* from *Minimusica* by John Oliver (mm. 3–4)

56

**Example 3.26: Third arpeggio pattern in *Continuum 2* from
Minimusica by John Oliver (m. 17)**

Cross-String Fingerings

Cross-string fingering passages use the open strings to create a legato articulation in a melodic passage. The use of two different strings for two consecutive notes enables the two notes to momentarily overlap, in perfect legato, as with the piano's damper-pedal. It is up to the performer to dampen any undesired resonances in order to create a clear melodic line. The advantage of open strings in a cross-string texture is to facilitate the work of the left hand and increase the overall sonority of the passage. Kachian recommends this approach: "The use of open-strings pitches helps create a continuity in sound due to their sustain and their ability to connect position changes. The absence of open strings results in comparatively less resonance"[33]. Example 3.27 shows a cross-string fingering utilizing open strings.

**Example 3.27: Cross-String fingering passage from
I sleep and my soul awakens by Clark Ross (m. 46)**

Each of the first three groups of triplets begins with a note on the sixth fret of a different bass-string. These notes are followed by a slurred note with the second or third fingers, and then an open string. The intervals resulting are of various types of 2nds: minor,

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[33] Kachian 2006, 31

57

major, and augmented. This passage could be re-written in a more scale-like spelling to illustrate this, as shown in example 3.28.

Example 3.28: Re-spelling of triplets from example 3.26 in scale-like manner

Normally in a scale pattern the right hand plucks all the notes. As a result each string is plucked multiple times. However, in cross-string passages, the right hand performs a pattern that is more similar to an arpeggio, since each string is only plucked once. This is shown in Example 3.28, which identifies the string-pattern employed.
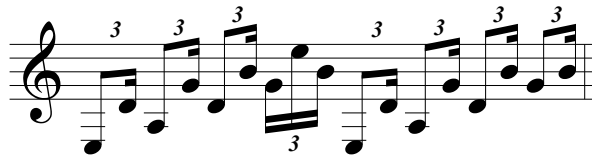
**Example 3.29: Right-hand pattern of passage in
example 3.27 shown on open strings.**

The eighth notes in the first half of the measure represent two notes slurred with the left hand, since they only require one pluck by the right hand. Thus, this form of writing uses arpeggio-like technique but the resulting sonority is of a smoothly performed scalar passage. There are numerous opportunities to observe the application of cross-string textures in mm. 61–96. Example 3.30 (mm. 61–62) shows that the open strings are used to create a legato sonority while large shifts occur in the left hand.
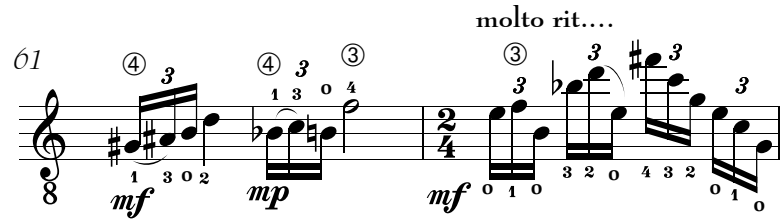
Example 3.30: Open-strings used during a cross-string passage in
I sleep and my soul awakens **by Clark Ross (mm. 61–62)**

There is a shift from 11th position down to first position in the last two eighth notes of m.

62, which is accomplished using the open E string. In the excerpt shown in example 3.31,

Ross contrasts the sound of notes played on a single string with the sound of the cross-

string flourish in 32nd notes at the end of the passage.
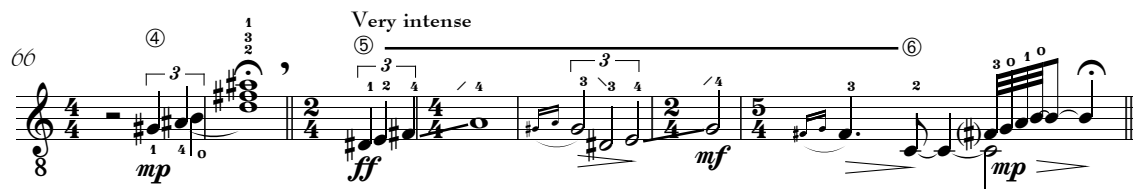
Example 3.31: Cross-string flourish at ending of homophonic passage in
I sleep and my soul awakens **by Clark Ross (mm. 66–72)**

The entire excerpt in Example 3.30 is played legato. The slowness of the tempo of the

"Very intense" section (mm. 68–72) enables a legato sonority through the application of

vibrato and glissandi in the left hand. By contrast, the legato in the quick 32nd notes in the

final measure is achieved through the cross-string writing. This cross-string ending to the

phrase also serves as a transition or link to the return of the opening material in the

following measures. The cross-string writing features many occurrences of the open

strings, as shown in example 3.32.
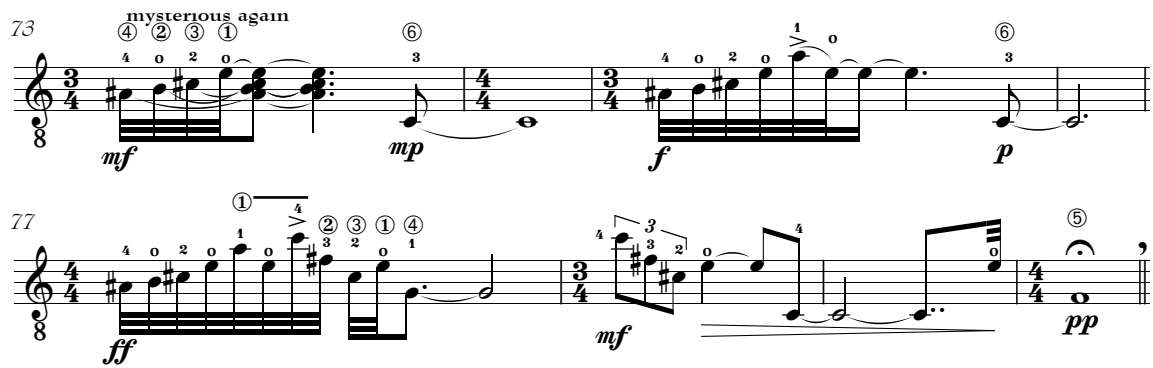
Example 3.32: Return of opening material in
I sleep and my soul awakens **by Clark Ross (mm. 73–80)**

Note the use of cross-string textures and the presence of open strings in the quick 32nd note passages that occur in example 3.33 (mm. 81–83) leading to the guitar solo section.
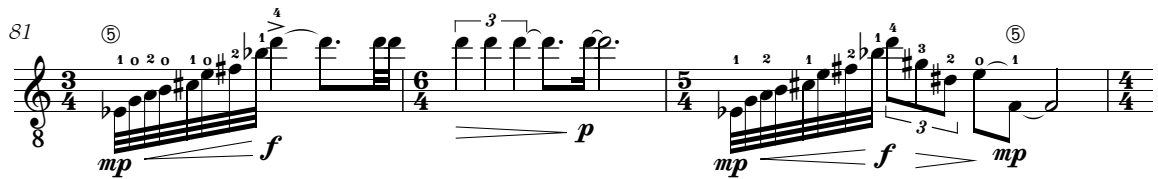
Example 3.33: Transition material leading to first guitar solo section from
I sleep and my soul awakens **by Clark Ross (mm. 81–83)**

The guitar solo section, shown in example 3.34 (mm. 86–96) employs the cross-string fingering effect throughout. Note the presence of the cross-string approach even in m. 87 and m. 89 where fewer open strings are present. This is accomplished through the use of slurs, so the right hand still has to pluck only once per string in these quick passages.

60
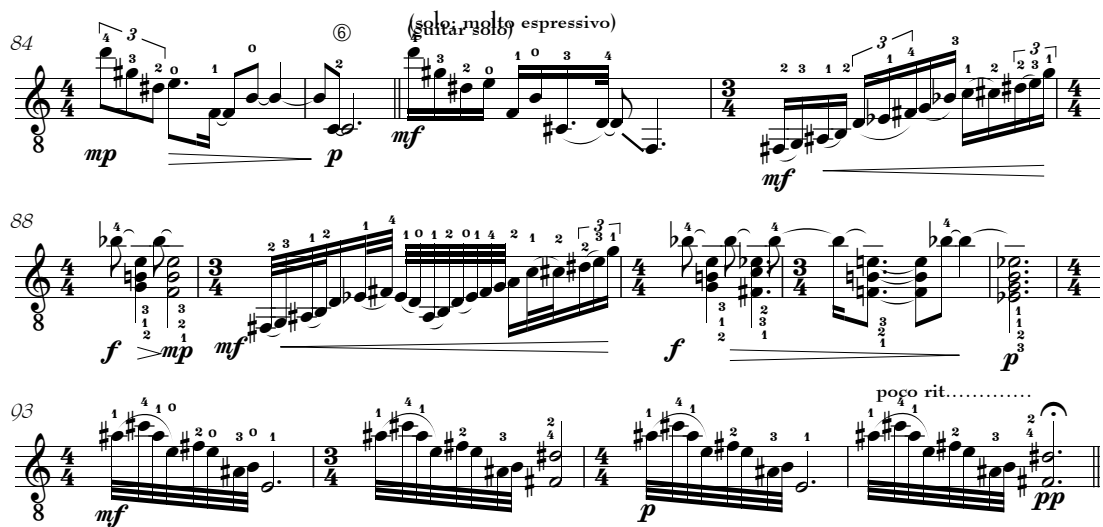
Example 3.34: First guitar solo section in
***I sleep and my soul awakens* by Clark Ross (mm. 86–96)**

The final four measures of the guitar solo (mm. 93–96) feature the cross-string texture on the second part of the first beat of each measure, following a slurred group of notes on the first string. From the perspective of the right hand, this is an arpeggio that follows the pattern in example 3.35.

Example 3.35: Right-hand pattern in final measures of
example 3.34 notated with open strings

Note that the slurred group of notes is itself an arpeggio, which is played entirely by the left hand. The slurred group includes the pitches C#, A#, and E following the first A# which is plucked by the right hand.

The first guitar solo is followed quite closely by a second guitar solo (mm. 119–127 shown in examples 3.36 and 3.37). This second solo features a transition from the cross-string texture to a pure arpeggio section. The opening material (mm. 119-121) is an

almost literal repetition of the material contained in the first solo (mm. 87-88). In the

second solo this material is re-written with slower note values, but employs a very similar

fingering. The main difference between the two versions is the absence of slurs in the

second solo, causing this passage to sound more declamatory and less flowing than the

first solo.
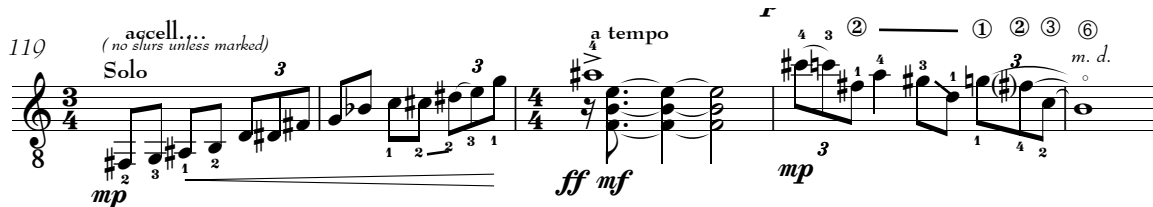
Example 3.36: Opening of second guitar solo from
***I sleep and my soul awakens* by Clark Ross (mm. 119–123)**

This is followed by three measures of pure stepwise cross-string writing (shown

in Example 3.37). In fact, the composer asks for harmonics on the notes D (mm. 124–

125) and B (m. 125), ensuring a perfect legato and co-ringing. The phrase culminates in a

proper arpeggio in the fourth measure (m. 127) that then leads into an arpeggios section

(Example 3.38).
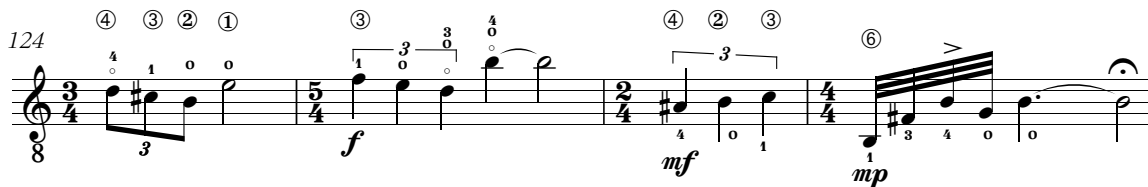
Example 3.37: Ending of second guitar solo section from
***I sleep and my soul awakens* by Clark Ross (mm. 124–127)**

Thirteen measures of pure arpeggios follow (shown in example 3.38). Thus, we

can see how the composer uses guitar textures as an identifying element, helping to

distinguish one section from another.

62
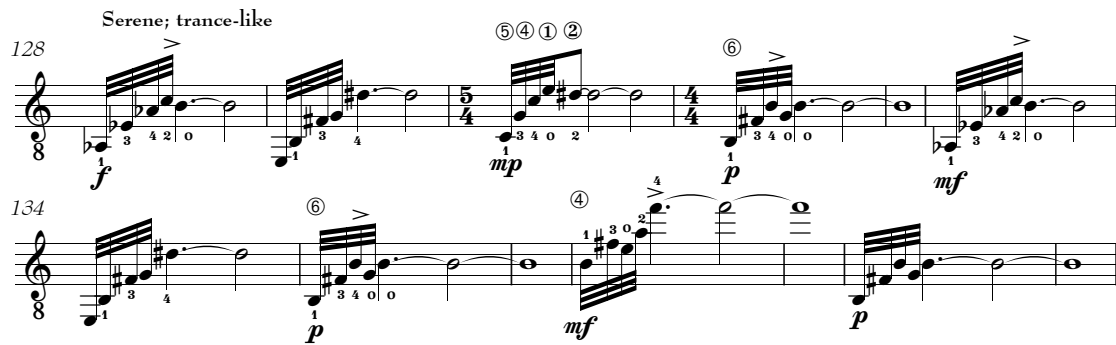
Example 3.38: Arpeggios following second guitar solo in
I sleep and my soul awakens **by Clark Ross (mm. 128–140)**

Homophony

(from Gk. *homophonia*: 'sounding alike')
Polyphonic music in which all melodic parts move together at more or less the
same pace.[34]

The most common use of homophony on the guitar places the melody on the three
nylon treble strings with an accompaniment on the three metal-wrapped bass
strings. Without the use of open strings or maintaining a single position, sustained
homophony is difficult to realize. In general, two or three voices work best on the
guitar unless a dense texture is desired.[35]

Homophonic textures are most commonly found in chorales, and the eighth

variation *Chorale* from Ross' *McGillicuddy's Rant* is no exception. Thus, it is an

appropriate case study for the application of a homophonic texture on the guitar.

In this variation, the use of open strings is very evident. Looking at the first eight

measures, shown in example 3.39 reveals that the open G string is present in all but one

of the chords, with the exception being the dominant chord on the last beats of mm. 175

and 179. In those chords include open D string. All 16 chords found in these measures

contain an open string. The open G-string is effectively a pivot note throughout the entire

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[34] Michael Kennedy, *The Oxford Dictionary of Music*. Oxford: Oxford University Press,
 2012
[35] Kachian 2006, 19

excerpt. The composer uses the G as a chord tone and as a dissonance, thus creating a

harmonically varied texture.

Variation 8 – Chorale
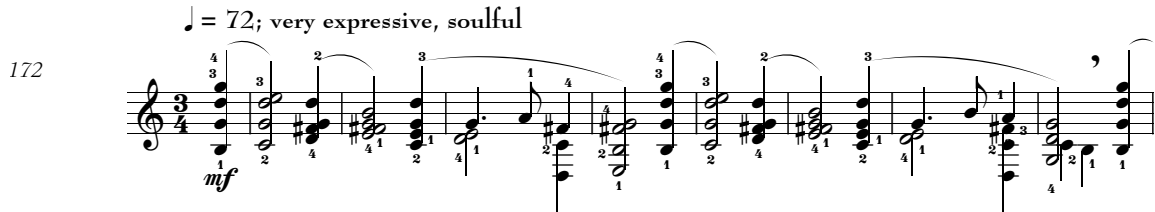
Example 3.39: Opening of Variation 8 – *Chorale* from *McGillicuddy's Rant* by Clark Ross (mm. 173–180) showing homophonic texture

The use of stopped pivot notes can also be seen in the same musical example.

Note the note D, which serves as a common tone to the first two chords. It acts as the

fifth in the tonic G major chord and as an added ninth in the subdominant C major chord.

The F# is a common tone pivot in the deceptive cadence (mm. 175–176). Similarly, the

note C acts as a common tone in the suspension at the perfect cadence (m. 180).

The use of portamenti is seen in example 3.40 (mm. 181–183) where it is

explicitly called for in the score as indicated by the diagonal lines connecting the soprano

and bass notes of the respective chords.
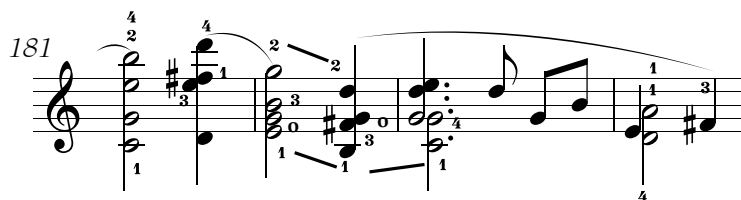
Example 3.40: Use of portamenti in Variation 8 – *Chorale* from *McGillicuddy's Rant* by Clark Ross (mm. 181–184)

The performer can apply the same effect in the passage shown in example 3.41 (mm.

193–194). Note that portamenti can be added in the soprano line (A-Db) where the

fingering suggest this articulation with finger four suggested for both notes. However, the

composer chooses not to specify that a portamento is required as there is no diagonal line here.
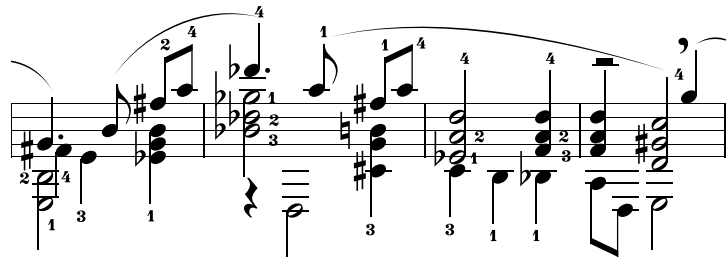
Example 3.41: excerpt from Variation 8 – *Chorale* from *McGillicuddy's Rant* by Clark Ross (mm. 193–196) where portamenti can be added

An interesting use of a guide-finger can be seen in example 3.42. Employing the Barré technique, which uses the first finger as a movable nut, the composer gives us an example of a pivot and guide finger at the same time. In m. 190 the barré allows for legato between the two chords, since all but the tenor voice notes in both chords are fingered with the first finger. This is followed by the use of the first finger as a guide when the barré is moved to the third fret for m. 191. This is an excellent example of how the barré can be used to enhance legato playing. It is worthwhile to note that this technique is best used sparingly, as it can be exhausting for the left hand. Additionally, barrés that cover all six strings, as in this case, prevent the use of open strings.
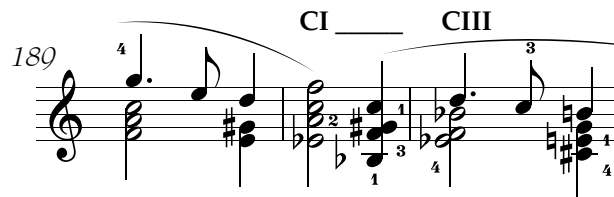
Example 3.42: Use of barré in homophonic texture in Variation 8 – *Chorale* from *McGillicuddy's Rant* by Clark Ross (mm. 189–191)

65

Chord Voicing

Kachian writes that: "As a harmonic resource, the guitar is nearly limitless in its capacity to form chords of two to six voices."[36]Nonetheless some guidelines for the appropriate voicing of chords are needed. Like most things guitar-related, here, too an idiomatic approach goes a long way to making the composer's intention more effective. Julian Bream contributes the following advice:

> Although the guitar has six strings and can therefore play chords of up to six notes, the technique of the right hand […] limits the number of notes simultaneously playable to four (i.e. thumb and three fingers). Hence five and six-note chords are always slightly arpeggiated. If the composer requires fast repeated chords, say at a moderate semiquaver speed, it would be advisable to condense all the harmonic interest into four-note chords, or better still, if fluent fingerboard facility is also needed, into chords of three notes.[37]

The final point above, about the appropriateness of three-note chords to fluent textures, is made well in the coda from the finale of Ellias' sonata *Emptying*. This coda, already discussed in the context of parallel chord shifting, and hand alignments, is clearly a good example of highly idiomatic composition of a high-energy climactic ending. Therefore the chord voicing used is idiomatic. Note the prevalence of three-note chords (over open-string basses) in the third through fifth lines of the coda (example 3.43). Anytime there are more than three notes in a chord, Ellias chooses to separate the bass from top voices. This is evident in the five-note chords in the first 5/4 and 7/8 measures in the first two lines of the coda.

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[36] Kachian 2006, 23
[37] Bream 2003, 4

Example 3.43: Complete coda section from
Emptying **(final page, no mm. numbers) by Roddy Ellias**

Kachian has specific pointers about chord voicing as well. He suggests that open chords featuring fourths, fifths, octaves, or tenths at the bottom of the chord are preferable. This can be seen in example 3.43 where the five-note chords consist of a seventh, two stacked fourths, and a fifth. Kachian recommends including open strings in the chords for enhanced resonance and whenever an interval of a second is desired. It is easier to play a second when one of the notes of the interval is the open string because playing a second between two stopped notes involves left hand stretches. Example 3.44 shows how of both of these recommendations are realized in the *Chorale* variation from *McGillicuddy's Rant* by Clark Ross.
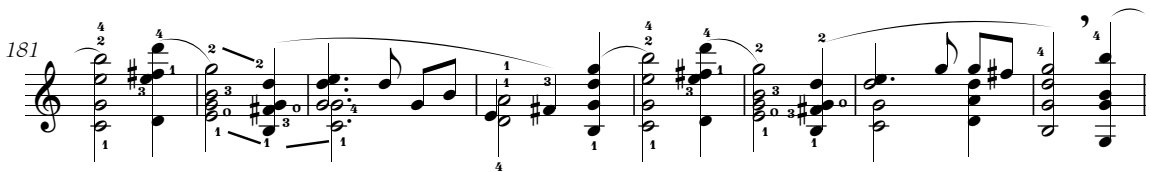
Example 3.44: Open strings employed in chord voicing, in Variation 8 – *Chorale* from *McGillicuddy's Rant* by Clark Ross (mm. 181–188)

Notice the minor-second F#-G in example 3.44 m. 182, which utilizes the open G string. The D-E major second in the following chord (C major ninth chord, m. 183) relies on the open first string. All of the chords in the example above, except for the first chord in m. 184, include at least one open string.

Kachian also recommends the use of closed position chords in the lowest register of the guitar as a special effect, since they can "sound rich and warm and produce a dense timbre"[38]. The final measures of *McGillicuddy's Rant* use this effect. In Variation 10 – *Quasi Reprise,* the texture gets denser and warmer as the piece nears its conclusion especially in the poco meno mosso (mm. 245–247, example 3.45).

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[38] Kachian 2006, 25
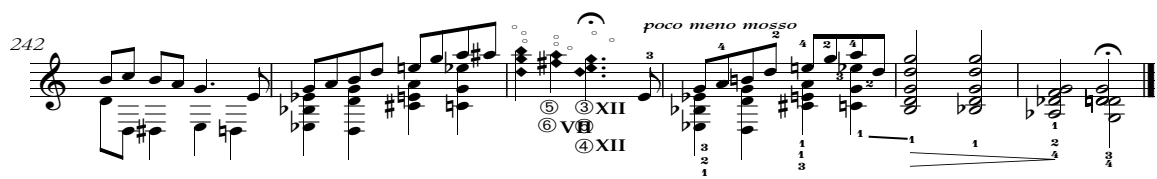
Example 3.45: Use of closed position chords in low register in Variation 10 –
Quasi Reprise **from** *McGillicuddy's Rant* **by Clark Ross (mm. 242–247)**

Polyphony

> Sustained two-voice counterpoint on the guitar is attainable providing the span of
> the hand is not exceeded. Slow to Moderate tempi are suitable for this type of
> writing.[39]

> Although the lute (forerunner of the modern guitar with exactly the same
> technique and similar tuning) reached the height of its development during a great
> period of contrapuntal writing, it is interesting to note that the lute and the guitar
> have considerable limitations in playing this kind of music.[40]

Kachian claims that counterpoint is the most technically demanding and intimate

idiom for the guitar[41]. However, it is also very frequently used by all composers who

write for the guitar, particularly when composing solo music. For the purposes of this

study, Ross' *McGillicuddy's Rant* is a very useful case study, since the theme itself is

contrapuntal and Ross' handling of the polyphony in several of the variations can be very

instructive.

Both Bream and Kachian emphasize that a slow to moderate tempo is one of the

keys to composing a successful polyphonic passage. Bream explains that:

> Neither Dowland nor Bach, in their three- and four-part fugal expositions, ever
> required the lute to perform counterpoint at more than moderate quaver speed, and
> they were both very careful to choose diatonic outlines, so as to eliminate
> unnecessary movement on the fingerboard. By the very nature of the instrument,
> two-part counterpoint at moderate semiquaver speed, with the parts in contrary

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[39] Kachian 2006, 27
[40] Bream 2003, 5
[41] Kachian 2006, 28

motion, is never wholly successful, nor in parallel motion, which is just as difficult to perform unless at a moderate quaver tempo.[42]

Ross' first two variations *Jig* and *Nostalgic* illustrate this instruction well. The tempo marking of both of these variations makes clear that the player should beware and maintain a conservative tempo. Even the *Jig*, which is traditionally a fast dance, is marked "Expressive and flowing, not too fast" and the metronome marking (q = 84–98) makes specific what the tempo marking suggests. The same is also true of the second variation, which is marked: "Steady, wistful".

Both Bream and Kachian instruct the composer that the choice of notes has to be done wisely. Kachian suggests not exceeding the span of the hand. Bream recommends keeping to a diatonic language to reduce the need for accidentals that could unduly tax the left hand. Bream also suggests that:

> Once again, as in so many cases when writing for the guitar, the composer must simplify the counterpoint, which the instrument finds difficult to project. For instance, if the top part is the more important of the two, the secondary, or lower, part must undergo slight adjustment; losing some of its contrapuntal significance it takes on a somewhat harmonic character, at the same time giving the performer more facility to shape and phrase the figuration above it. This system, which one might term harmonic counterpoint, also applies in reverse, i.e. with the top part in a simplified form supporting the figuration of the lower part.[43]

Ross applies this approach very effectively in both variations. Example 3.46 shows the opening lines of the first variation. Note that Ross manages to utilize the top three open strings (G, B, E) despite the otherwise chromatic context.

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[42] Bream 2001, 5
[43] Ibid

**Example 3.46: Polyphonic texture in Variation 1 – *Jig* from
McGillicuddy's Rant by Clark Ross (mm. 17–26)**

In these first two phrases of the variation, note that Ross employs an open string on three

out of the four beats of the first and third measures, and that all six open strings are

momentarily ringing in the eighth measure of the variation. In m. 8 the open strings

appear in the following order: E and B together, followed by the third string G on the

second beat, the fourth string D occurs on the third beat, as do the open sixth string D and

the fifth string A. At no point in example 3.46, does Ross ever exceed the four-fret span

of the hand. It is also helpful to note that the bass line is identical to that of the theme.

Therefore the notes available to Ross for the upper voice are restricted by what is

available within four frets of each of the bass notes in the original theme. This point is

made even clearer in the *Nostalgic* variation. In this variation (shown in example 3.47)

the upper voice of the theme is presented practically verbatim, while the bass line

elaborates on the original bass using added passing notes. The original bass notes of the

theme are circled to make this easier to observe.

Example 3.47: Bass notes from theme are circled in red, in Variation 2 –
Nostalgic **from** *McGillicuddy's Rant* **by Clark Ross (mm. 33–36)**

Furthermore, beyond the fact that the composer chose to remain physically close to the original bass notes, the additional notes in this variation's bass line contain many open strings. This greatly simplifies the work of the left-hand, exactly as both Bream and Kachian recommended. In example 3.48 the open strings in the bass line are circled to illustrate this point. The open string usage in this variation is so extensive that out of the total number of notes in the piece (296) there are 93 instances of open strings being played, which is to say, almost one in three notes in this variation is an open string.

Variation 2 — Nostalgic

Example 3.48: Open strings in bass-line circled in blue, in Variation 2 –
Nostalgic **from** *McGillicuddy's Rant* **by Clark Ross**

Both Kachian and Bream claim that a polyphonic texture involving more than two voices would not be realistic on the guitar. They do agree that this texture could be evoked without strictly maintaining all the voices all the time. According to Kachian "Consistent three and four-voice counterpoint that contains true melodic and rhythmic separation is not possible on the guitar."[44]. Bream writes that:

> Some composers may argue that since there are so many limitations in two- part writing, how on earth are they to compose in three or four parts if the musical conception of a composition requires it? To this I would answer that two parts played on the guitar have an effect of peculiar fullness and completion. However, a discreet and fragmentary use of a third and fourth part, in the form of harmonic punctuation, is often playable, as well as being suitable to the instrument. This technique is exploited to perfection in the fugues and other compositions of J.S. Bach.[45]

In *Variation 5 – Arabesque*, Ross succeeds in evoking a three-voice texture. At times he even manages to suggest a four-voice texture by ingeniously manipulating the listener's perception, and by utilizing open string. The *Arabesque* is a good case study in guitaristic polyphony. This fifth variation is divided into two sections, as are all the other variations, and the polyphony is handled differently in each half. In the first half of the variation the ostinato bass remains constant for 12 measures, and consists of only two open strings, the open sixth string D, and the fifth string A. Over that bass, a tenor line maintains a secondary ostinato: F-E-Eb-Gb, for four consecutive measures. The top voice, which sometimes divides into two lines, is built above this foundation. This voice also starts as an ostinato for two measures before blossoming into a fully-developed melody that recalls the main theme. example 3.49 shows the opening measures of this variation, where these three voices make their entries.

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[44] Kachian 2006, 27
[45] Bream 2003, 6

Example 3.49: Entries of bottom, middle, and top voices in Variation 5 – *Arabesque* from *McGillicuddy's Rant* by Clark Ross (mm.104–109)

The middle voice is moved up an octave in the last measure of example 3.49. This allows the listener to continue to perceive a three-voice texture, and makes the passage much more comfortable for the guitarist. The open strings in the bass function as musical glue that enhances the resonance and the legato in the first half of the variation.

The second half of the variation features a chromatically descending bass line which is no longer playable on open strings. As a result the rest of the voices have to accommodate the bass. In other words, the range of the voices is restricted by what the bass does. Note that in the second half of the variation (example 3.50) the higher voices do not exceed the high G on the first string third fret. The fact that the bass line is in first position means that the entire passage has to be played there.

Example 3.50: Second half of Variation 5 – Arabesque from *McGillicuddy's Rant* by Clark Ross (mm. 117–127)

75

Example 3.50, continued

The polyphonic writing in Patrick Roux's *Aurore Boreale* is guided by the same principals. The polyphony in this piece relies on slow motion, the choice of notes is guided by position, and any additional voices beyond two are suggested rather than fully realized. Roux suggests a three-voice texture in the last measures of the piece (shown in example 3.51). The lower voice features a descending bass line from A to D# (mm. 58–61), followed by the same descent an octave lower (mm. 62–65). The top voice is present throughout the example and consists of two phrases. The material in the second statement (mm. 62–65) acts as a variation on the first statement (mm. 58–61). The middle voice, which is characterized by an eighth-note rest followed by a dotted-quarter, appears sporadically. The voice leading in the middle voice is imperfect and unresolved. Note the leap from E – Bb followed by an unresolved chromatic movement towards A in mm. 60–61 that does not arrive at this pitch. The middle voice is present sporadically (mm. 58–60) then disappears, returning a few measures later (mm. 63–64). The change to a two-voice texture in m. 62 is handled masterfully. Suggesting a voice crossing, the top voice

76

leaps downward by a ninth, below the middle voice. This serves to suggest a three-voice

polyphonic texture, although in reality there are only two voices. Note also the return of

the middle voice in m. 62 through the use of a Bach-like implied polyphony. The notes

C-B-F-E, circled in example 3.51, are essentially a Bach-like single line that suggests two

voices through the use of melodic leaps B-F-E.

Example 3.51: Polyphonic textures in *Aurore Boreale*
by Patrick Roux (mm. 58–70)

Chapter 4: ARTICULATION

Staccato and Legato

Guitarists are keenly aware of the need to stop the ringing of vibrating strings. It is ironic that even though the instrument is plagued by incredibly short sustain, the player is nonetheless seemingly always preoccupied with the need to stop unwanted sustaining notes. As a result, guitarists are quite adept at playing staccato when needed, and this can be accomplished by one of two ways on the guitar.

According to Kachian[46], the preferred method for stopping notes is to return a right-hand finger to the string. This is particularly appropriate at slow or moderate tempi. This right-hand articulation becomes too physically demanding when the tempo is fast. It literally doubles the work of the right hand to both produce and stop each note. The second option is to release the left-hand finger responsible for a stopped note. This obviously cannot be done with open strings. Left-hand stacatto is a much easier procedure, but it suffers the disadvantage of being audible at slower tempi. The release of the string can produce a light buzzing sound and sometime sound the open string as well.

Articulation is normally left to the discretion of the performer, but the composer can also specify staccato articulation when desired. It is highly unusual for the composer to indicate which manner of staccato the performer should choose. Examples 4.1 and 4.2 show two instances of staccato requested by the composers for stylistic effect. Example 4.1, from Variation 3 – *Scherzo* of Ross' *McGillicuddy's Rant,* calls for staccato on the chords in the lower voice. Note that many of these chords involve the open strings,

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[46] Kachian 2006, 29

therefore at least some right-hand involvement is needed. This might also be the reason the composer chose to spell out the staccato articulation, rather than relying on the performer's sense of style.

**Example 4.1: Stacatto articulation in Variation 3 – *Scherzo* from
McGillicuddy's Rant by Clark Ross (mm. 49–56)**

In Example 4.2, from the second movement *Shuffle Boogie* of Ellias' sonata *Emptying*, the staccato is meant to help convey the bluesy style. Here, a left hand staccato might be desirable not only because of the faster tempo and absence of open strings on the chords, but also because some buzzing might be evocative of the rougher playing-style associated with blues and shuffle. Staccato is indicated in m. 48 and m. 52.

Example 4.2: Staccato articulation in *Shuffle Boogie* from
***Emptying* by Roddy Ellias (mm. 44–54)**

Similarly, legato articulation is not frequently requested specifically. It is generally a challenge to produce true legato articulation on the guitar. Legato playing is greatly aided by the inclusion of open strings that can carry on the resonance after the left hand has had to move, and by the avoidance of frequent shifting or dense textures. When a composer specifically asks for legato articulation, the most common way to indicate that is using phrasing slurs or by including the word legato next to the music as a performance indication (as in example 4.3).

Example 4.3, from Roux's *Aurore Boreale* shows a passage in which the composer specified legato articulation. This is aided by the use of slurs and open strings. This passage can be described as cross-string fingering, which has already been shown to increase the legato sonority on the guitar.
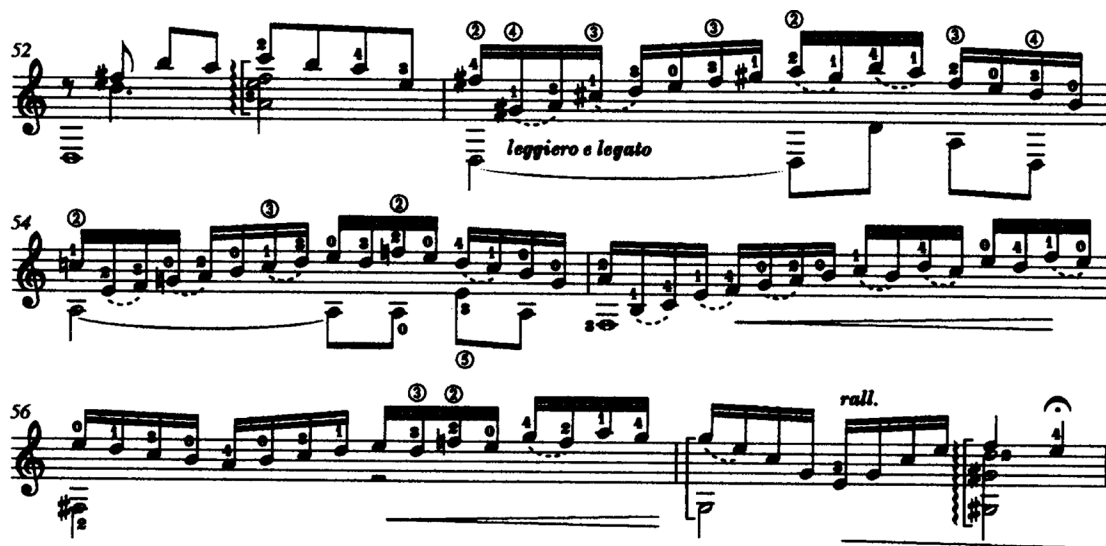
**Example 4.3: Legato articulation in *Aurore Boreale* by
Patrick Roux (mm. 52–57)**

Slurs

Similar to bowed instruments, the guitar is capable of producing more than one pitch with a single articulation. This technique is defined by the term *slur*. On the guitar, slurring is possible in both the upward and downward directions. Both versions produce pitches on the string after the original pluck[47].

As Kachian explains, slurring produces additional notes after the original pluck of the string. Slurs can be played between any two notes on a single string that are within the finger span of the hand. The slur could include an open string or exceed the span of the hand by sliding on the string, which is called glissando, or portamento and is discussed in the following section. Slurring to an open string is a very popular technique amongst guitar composers. It makes for a very idiomatic texture and can be helpful in shifting as well. Slurring to or from an open string can be seen as a sub-category of slurring technique in that one of the notes in the slur-group is an open string.

Variation 4 – *Bluesy* in *McGillicuddy's Rant* by Clark Ross employs slurs with an open string throughout the variation. In order to understand the context for Ross' use of

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[47] Kachian 2006, 32

this technique, it is helpful to examine Ross' manipulation of a melodic cell from the
original theme. Ross creates an ostinato figure employing slurs with an open string out of
this melodic cell in the theme. Example 4.4 shows the first four measures of the theme.

Theme

Example 4.4: Opening of Theme from *McGillicuddy's Rant* by Clark Ross (mm. 1–4)

Ross takes the pitches E, G, and D from the upper voice (mm. 3–4) and turns
them into an ostinato group. The notes G and D are played on the third fret, while the E is
an open string. Ross chooses to slur the notes E and G into a three-note slur group: E-G-
E. Similarly by slurring the note D to the open second string he produces the second slur
group B-D-B. He then creates a third group on the third string to complete the pattern,
using the pitch on the third fret of that string, which is Bb. The resulting pattern consists
of three slur-groups on the top three strings, shown in example 4.5.

Example 4.5: Ostinato pattern with slurs, in Variation 4 – *Bluesy*
from *McGillicuddy's Rant* by Clark Ross (m. 93)

Ross also creates an identical pattern on the three bass strings, shown in example 4.6.

82

This second ostinato pattern is, in fact, a mirror image of the fingering of the first ostinato. The slurs start on the sixth string and proceed towards the fourth string, utilizing the open string and the third-fret note.
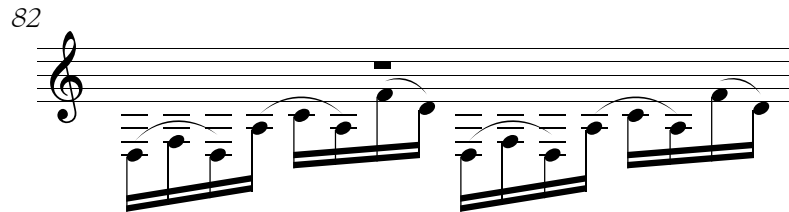
Example 4.6: Bass ostinato pattern with slurs, in Variation 4 – *Bluesy* from *McGillicuddy's Rant* by Clark Ross (m. 82)

These patterns are very idiomatic, as the work of both hands is quite simple. The right hand only plucks once per string, in a fixed order, and the left hand only employs one finger to produce the notes, due to the fact that only the third fret is utilized. In this manner, Ross is able to free up the player to perform another voice while the ostinato is being played. This two-voice texture is shown in Example 4.7.
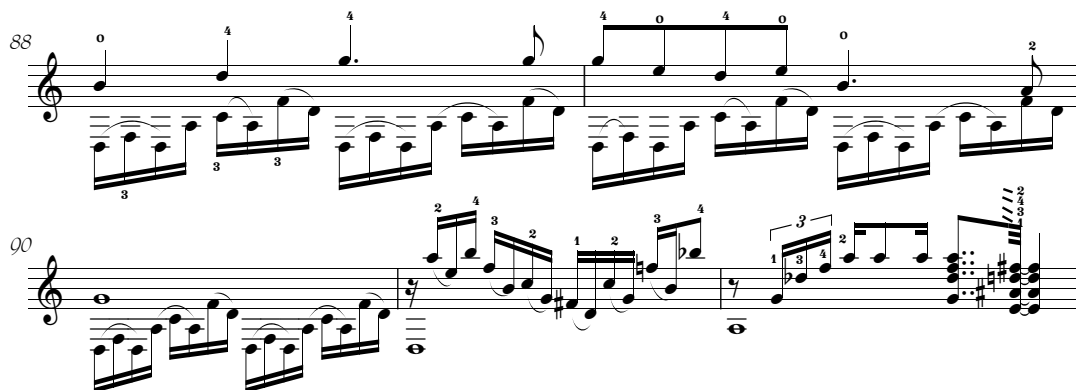
Example 4.7: Ostinato pattern and upper voice in Variation 4 – *Bluesy* from *McGillicuddy's Rant* by Clark Ross (mm. 82–87)

There are interruptions in the slur-groups on the second quarter note in m. 87, and on the second and third eighth notes in m. 89. These are not essential breaks in the slurring but a fingering suggestion. It is possible to slur one voice while simultaneously plucking another, although it requires coordinating the actions of the two hands. Ross has chosen to offer a simplification to this procedure, by removing the slur in m. 91, in example 4.7 and also showcases another instance of slurring to the open strings. There are slurs to each of the top four open strings: A-E on the first string; F-B on the second string; C-G on the third string; and F#-D on the fourth. The second half of the variation features the ostinato pattern on the top three strings (mm. 93–100), with an independently moving lower voice on the bass strings. Example 4.8 shows the second half of the variation (mm. 92–103).

**Example 4.8: Second half of Variation 4 – *Bluesy* from
McGillicuddy's Rant by Clark Ross (mm. 93–103)**

Ross also employs slurring technique extensively in the guitar quintet. Some of his application of slurs has been discussed in relation to cross-string fingering technique. Example 4.9 shows slur groupings of two and three notes per slur. There are three-note groups in m. 87, and in mm. 93–96. There are also examples of slurs involving open strings, as well as slur groups in which all slurred pitches are stopped.
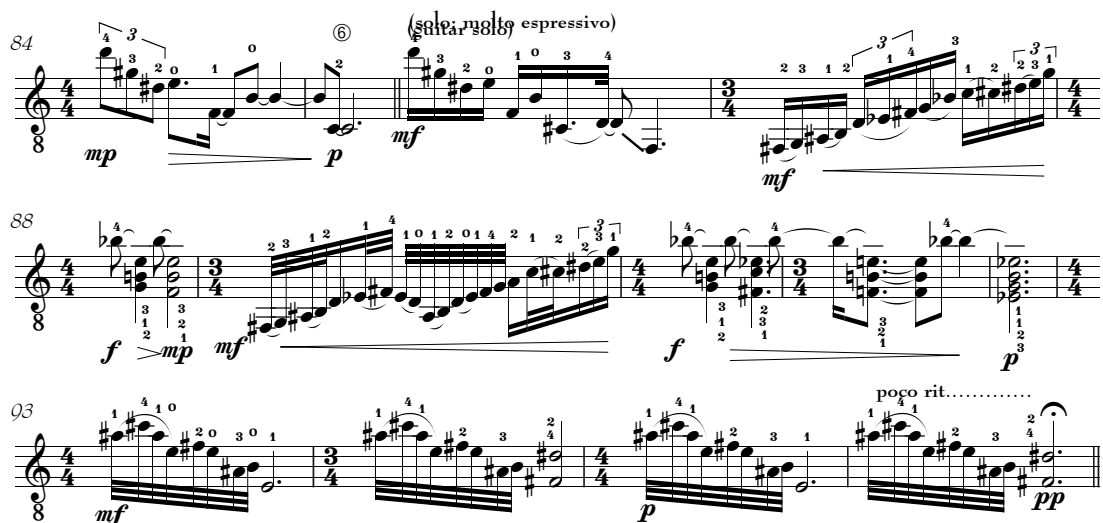
Example 4.9: Slur groups in guitar solo section from
***I sleep and my soul awakens* by Clark Ross (mm. 86–96)**

John Oliver dedicated three studies from his series *Minimusica* to slurring

technique. He calls these three studies *Aequum 1–3*. Each study in the Aequum series is

more difficult than the preceding one, and each study also gets more difficult as it

progresses. It is helpful to observe what aspects of slurring technique increase the

challenge to the guitarist. One of the main issues of slurring technique is evenness of

accents, and that is the primary concern of the first study, as shown example 4.10.
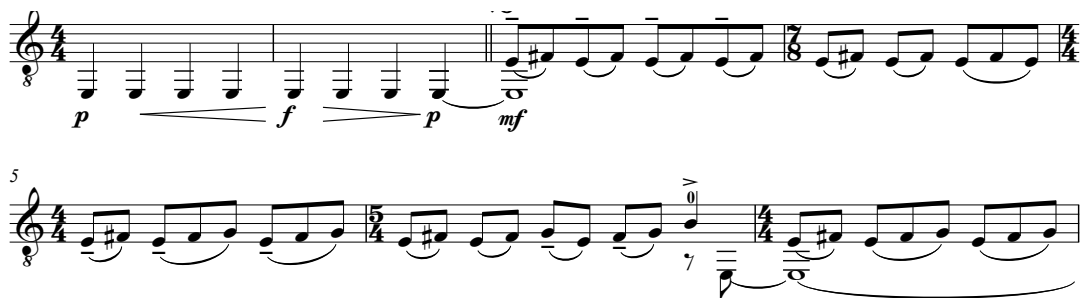
Example 4.10: Opening of *Aequum 1* from *Minimusica* by John Oliver (mm. 1–7)

In these first measures of the piece the slur-groups identify metric accents. The slurs help

to differentiate measure 3, which features four groups of two notes, from measures 5 or 7

where the accents suggest groupings of 2+3+3. Oliver explains that this is meant to

develop evenness of dynamic and articulation between the fourth finger, which is usually the weakest, and the rest of the left hand. In example 4.10, the fourth finger is responsible for the slurred Gs (in mm. 5–7), while the other slurs are produced with the first and third fingers.

Another technical challenge Oliver tackles in this piece is separation of voices. While some fingers are engaged in slurring, others are responsible for a sustained melodic line, as in example 4.11.

Example 4.11: Separation of voices, with slurs, in
Aequum 1 **from** ***Minimusica*** **by John Oliver (mm. 15–24)**

The upper voice proceeding in half notes, in example 4.11, needs to sound unaffected by the slurs in the lower voice. This challenge is exacerbated in m. 21, and m. 23, where the span of the hand is gradually increased forcing a stretch. In the first half of m. 21, the left hand has to cover five frets in eighth position, and in the first group of m. 23 that five-fret span is brought to fifth position where the distance between the frets is greater.

By way of contrast, example 4.12 features some left-hand contractions. The second finger is constantly holding the note A on the second fret of the third string, while the other fingers articulate within a span of two frets from it.

**Example 4.12: Left-hand contractions in *Aequum 1* from
Minimusica by John Oliver (mm. 36–43)**

A contraction occurs on the third and fourth slurs (m. 36, third and fourth beats). Fingers 2 and 3 are both on the second fret, while fingers 1 and 3 are on the first and third frets, respectively. Similarly, in example 4.13 (m. 55), the fingers are all placed in a contracted second position. The fourth finger is on the third string fourth fret, while fingers 1 and 3 articulate the slurs between the second and fourth frets of strings ④, ⑤, and ⑥.

**Example 4.13: Left-hand contractions in *Aequum 1* from
Minimusica by John Oliver (mm. 55–57)**

In this example, the issue of evenness between slurred and plucked notes is addressed. While the right hand performs a constant **p-i-m-a** arpeggio, the slurred notes have to match the volume and timing of the notes produced by the right hand. Since the slurs occur in the lower moving line, it is expected that they project over the upper notes of the arpeggio. Thus, the slurred notes need to be quite sonorous. The final challenge in this first slur study once again has to do with evenness of volume and articulation. The coda of the piece, shown in example 4.14, requires that slurred and plucked notes be produced simultaneously. The lower voice notes E-F# are slurred while A and B in the upper voice are plucked. This means that the player has to be able to match the volume of the plucked notes with the slurs at all the dynamic levels from forte to pianissimo.
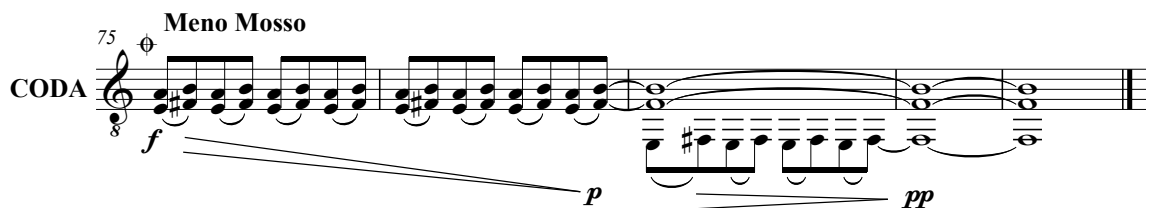
Example 4.14 Ending of *Aequum 1* from
***Minimusica* by John Oliver (mm. 75–79)**

Glissando

"[A] highly idiomatic technique used for creating a smooth phrase… any left-hand finger or fingers slide upward or downward from one desired pitch or set of pitches to another."[48]

Kachian makes a distinction between two types of glissando. He calls the first a "violin-like" quick and light slide, which can be executed at any tempo. The second type

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[48] Kachian 2006, 35

is a more heavy-handed slide, which exerts more pressure on the string and makes each semi-tone pitch audible along the way. Although this distinction is not a common one, it does appear to be useful to differentiate between musical contexts. Both types of glissandi appear in these pieces. The first type, in which two notes or groups of notes are simply connected by a light slide, appears in the chorale variation of Ross' *McGillicuddy's Rant*, as shown in example 4.15.
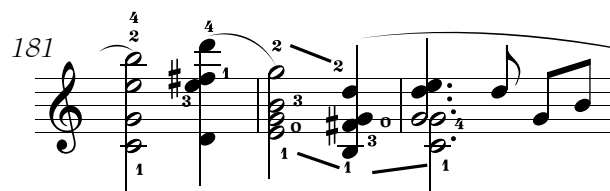
Example 4.15: Light glissando in Variation 8 –*Chorale* from
***McGillicuddy's Rant* by Clark Ross (mm. 181–182)**

In m. 182 of example 4.15, the notes held by fingers 1 and 2, E and G on the fifth and second strings, respectively, are connected to the notes held by the same fingers in the following chord on the same strings, the notes B and D. It is interesting that the 3rd finger is not requested to perform a glissando, since it also participates in both chords and could easily perform this glissando. This could be simply a typesetting issue or an omission, or an idiomatic choice, perhaps meant to reduce bass-string squeak, since the three wound bass strings produce an additional squeaking noise in these contexts. All the notes are rearticulated upon arrival at the lower position, thus the glissando is purely decorative and not meant to produce the pitches of the destination chord.

In example 4.16, from the Arabesque variation of the same piece, only one finger is requested to perform the glissando. This effectively turns that finger, the second, into a guide-finger for the left hand as the hand shifts between positions.

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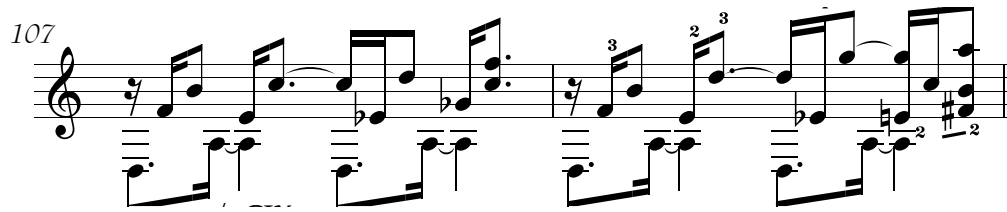
Example 4.16: Glissando as guide finger in Variation 5 – *Arabesque* from *McGillicuddy's Rant* by Clark Ross (mm. 107–108)

In example 4.17, the final measure of the *Bluesy* variation shows a glissando that has a different effect. Rather than connecting two pitches, the final chord slides downward without a destination pitch, producing a trailing-off effect.
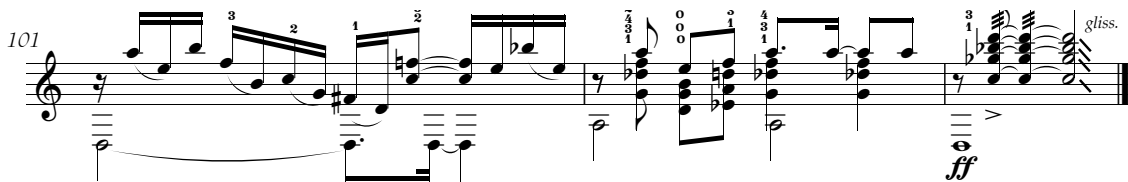
Example 4.17: Glissando at the end of Variation 4 – *Bluesy* from *McGillicuddy's Rant* by Clark Ross (mm. 101–103)

An example of the second, heavy-handed type glissando can be seen in *I sleep and my soul awakens* by Clark Ross. In example 4.18, all five instruments perform the heavy-handed glissando, which is sometimes called a portamento. The dynamic is fortissimo, and the tempo is slow and deliberate.

Example 4.18: Second type, or heavy glissando from
I sleep and my soul awakens **by Clark Ross (mm. 65–71)**

Other moments in this piece also call for relatively heavy glissandi on the bass strings. It is noteworthy that Ross gradually makes the glissando, which he calls portamento, more prominent in the score. As a result it becomes more prominent and meaningful to the listener as well.

The first occurrence of the glissando in example 4.19 (mm. 114-115) is in the written comment above the score "slight portamento down is okay here" suggesting a glissando is optional. The second instance occurs in m. 119 where the glissando is marked below the notes in the left-hand fingerings. In the third occurrence a glissando is clearly intended as an audible device, appearing as it does between the pitches G#-D within the staff. This progression suggests an increase in the importance and audibility of the glissando technique in this solo guitar section.

Example 4.19: Three instances of glissando (portamento) in the second guitar solo from *I sleep and my soul awakens* by Clark Ross (mm. 114–127)

Rasgueado

Kachian states that rasgueado technique, is most commonly associated with flamenco guitar technique. He writes: "This [rasgeuado] effect is specific to the guitar. It is most commonly found in the flamenco guitar tradition although it is not restricted to that genre. It is quite simply a strumming technique that can be very loud."[49] However, the connection to the classical guitar goes all the way back to the baroque guitar traditions of the seventeenth century. In fact, strumming is so inherent to guitar playing that it might be impossible to ascertain when it started. Rasgueado technique has been used to create rhythmic interest and increase the volume of harmonic progressions played on the guitar since the early seventeenth century.[50] This technique can be used as a harmonic tremolo and be marked without any specified rhythm. Alternatively, rasgueado

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[49] Kachian 2006, 38

[50] James Tyler has written extensively on rasgueado techniques on the Baroque guitar. His excellent textbook includes invaluable information on the practice of rasgueado strumming. James Tyler. *A Guide to Playing the Baroque Guitar* (Bloomington: Indiana University Press, 2001)

strumming can be employed with a very specific and precisely notated rhythm. When used as tremolo, slashes through the stem are used, as in the traditional tremolo notation in example 4.20. When a specific rhythm is desired, it is notated with repeated chords in that rhythm, and the word rasgueado is often added above the score.

Example 4.20 shows the use of rasgueado at the conclusion of Variation 4 – *Bluesy* from Clark Ross' *McGillicuddy's Rant*. In that instance, it appears as a loud tremolo on the final chord of the variation.
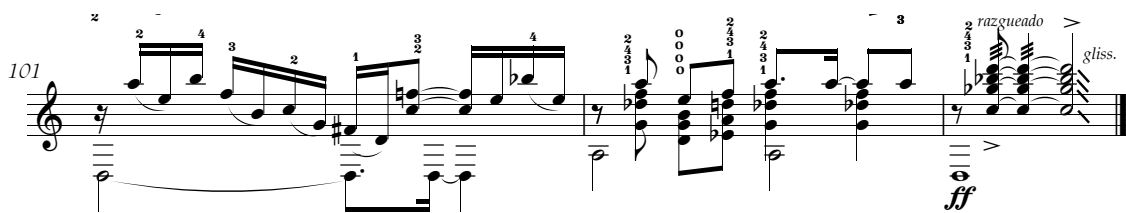
Example 4.20: Rasgueado strumming at the conclusion of
Variation 4 – *Bluesy* from Clark Ross' *McGillicuddy's Rant* (mm. 101–103)

This ending imitates the endings of many blues or rock songs, which end with a loud final chord that is abruptly cut off with a glissando. The rasgueado allows for a very loud ending that enhances this stylistic effect.

Tremolo

The tremolo technique is a very idiomatic device that guitarists employ to great effect. There are various types of tremolo, but what unites all tremolo settings is the basic concept of relatively rapid note repetition that imitates a sustained melody or harmony. Bream writes:

> Another delightful technique on the guitar is the *tremolo*. This effect should be used very sparingly, and I would advise composers to limit their use of it to extended compositions such as a sonata, suite, or concerto, where it can effectively be used to give textural variety, when all the other 'stops' have been pulled![51]

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[51] Bream 2003, 7

Kachian adds that "This technique is a standard one for creating a sustained melody on the guitar. Given the relatively quick decay of the instrument, the tremolo is a valuable resource."[52]

The typical melodic tremolo is performed by the thumb and three plucking fingers of the right hand. The thumb is responsible for all the non-tremolo notes while the remaining fingers (index, middle, and ring) take turns plucking the tremolo note that is usually the melody note. Bream gives an example of such a tremolo, reproduced here in example 4.21.
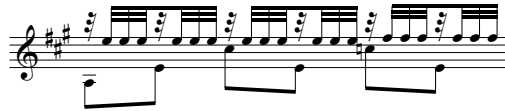
Example 4.21: An example of a typical melodic tremolo[53]

In Bream's example, the tremolo line is played by fingers a,m,i, in order. The effect of the tremolo in example 4.21 sounds like a sustained a melody with a half note E, followed by a quarter note F#. The thumb plays all the other notes, which are notated with downward stems.

Composer John Oliver includes some moments of tremolo technique in one of his final three studies, entitled *Reliquarum 1 Cetritude* from *Minimusica*. The instances of tremolo technique are always in passing and are slightly slower than standard tremolo passages. Tremolo is normally notated in 32nd notes at a fairly elevated tempo, while in this case (example 4.22) these are 16th notes at a moderate tempo. Another important difference between Oliver's tremolo and the standard is that Oliver does not necessarily

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[52] Kachian 2006, 41
[53] Bream 2003, 7

give the melodic interest to the tremolo notes. Oliver uses the tremolo more for rhythmic effect. The slightly slower tempo allows guitarists to use two-finger alternation (i and m) instead of the standard three-finger tremolo pattern. This seems to be desirable in m. 14 and in mm. 16–17 due to the musical context.

Example 4.22: Tremolo used sporadically in *Reliquarium 1: Certitude* from *Minimusica* by John Oliver (mm. 9–18)

Patrick Roux's piece *Aurore Boreale* utilizes the harmonic tremolo type, or tremolando, in which the function of the repeated notes is to suggest a sustained, shimmering, orchestral effect. Example 4.23 shows the tremolando writing in this piece. The repeated bass notes imitate a pianistic or orchestral rumble. The thumb and index-finger, p and i, suggest a steady alternation between D# and G# while the ring and middle fingers, a and m, carry the melodic content of the passage.

Example 4.23: Tremolando in accompaniment, from
Aurore Boreale **by Patrick Roux (m. 32)**

Dynamics

Kachian:

> In comparison to most other instruments, the guitar has a relatively small dynamic voice. While the normal range of dynamics should be used, the guitar's actual range is approximately from *ppp* to *f*."[54]

He later adds that:

> When notating dynamic levels for the guitar in chamber music, some composers and performers find is desirable to apply louder markings for the guitarist and softer ones for the other players in an attempt to achieve the desired musical balance.[55]

Kachian points out that even the forte dynamic is only truly reachable by special guitaristic techniques, such as rasgueado, or by including the lowest open-string bass register of the instrument.

The issue of dynamics becomes most relevant when considering the guitar in a chamber music setting. Due to the guitar's inherent quietness, the question of balance can become a real compositional challenge. However, creative solutions to this perceived problem have produced many fine pieces of chamber music and even concerti. Amplification is often used in larger instrumental settings. However, amplification alone does not solve balance issues. When used well, amplification subtly enhances the guitar's presence, enabling all the musicians to play naturally and enjoy the ensemble. This only works when questions of balance are resolved by the composer first.

Examples 4.24 and 4.25 show how Clark Ross deals with issues of balance between the guitar and the string quartet in his quintet *I sleep and my soul awakens*. In example 4.24, note the difference in dynamic markings between the guitar's part and that

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[54] Kachian 2006, 44
[55] Ibid

of the string quartet. While the guitar is instructed to play forte (mm. 30–31, and m. 34), the strings are requested to play in the mezzo piano to mezzo forte range.

Example 4.24: Different dynamics markings for guitar and string quartet in
I sleep and my soul awakens **by Clark Ross (mm. 29–37)**

In example 4.25, Ross not only uses different dynamics for the guitar, but he also employs the rasgueado technique to reach the dynamics he requests from the guitarist.

Example 4.25: Use of loud rasgueado strumming to achieve balance between guitar and string quartet in *I sleep and my soul awakens* by Clark Ross (mm. 151–160)

In addition to the difference in dynamics, and the rasgueado effect, Kachian also suggests that a difference in textures between the guitar and other instruments would be well advised. Kachian recommends sparser textures while the guitar is featured. He writes: "Another method of dealing with the guitar's dynamic limitations, in chamber music or orchestral settings, is to make other instrumental activity sparse while the guitar is active."[56]

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[56] Kachian 2006, 46

Ross' quintet illustrates this point as well. This can be seen in example 4.26. Single instruments enter and drop out while the guitar continuously plays. It is also instructive that Ross frequently includes guitar solo sections within this piece.

Example 4.26: Sparse instrumental textures in string quartet while guitar plays, from *I sleep and my soul awakens* by Clark Ross (mm. 182–187)

Dynamics on the guitar, especially in chamber music or concerto settings do not necessarily need to be seen as a problem. Rather, dynamics are a challenge that a composer must find ways to deal with musically. Musicians that play chamber music with guitar often comment on the joy they feel from being able to explore the more tender

aspects of their instruments' dynamic range. However, balancing the dynamic ranges of

the guitar and other instruments is an issue that a composer must always bear in mind

when composing chamber music with guitar.

Chapter 5: TIMBRE

> Perhaps more than any other instrument, the guitar possesses a large pallet of easily perceivable tone colors[…]The guitar is unlike other instruments in many ways but it is particularly idiosyncratic regarding timbre.[57]

Tone colors controlled by the Right Hand: Naturale, Tasto, and Ponticello

The three timbre categories for the right hand are *ponticello* (pont., *metalico*) played by the bridge; *tasto* (or *tastiera, dolce*), which is played above or near the fingerboard; and *naturale* (or, *ord., normal*) in which the right hand plucks just behind the sound hole. Although these categories of sound exist in other string instruments, the difference in tone-color these categories have on the guitar is very dramatic.

Tone color is often left to the performer's discretion, as an interpretive decision, however, it can be also be indicated by the composer when a particular color is desired. Example 5.1 comes from the ending of Roux's *Aurore Boreale* where the tone color change to dolce foreshadows the calmness of the following phrase (m. 66).

Example 5.1: mm. 61–66 from *Aurore Boreale* by Patrick Roux

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[57] Kachian 2006, 48

Example 5.2 shows a passage from John Oliver's study *Reliquiarum 3: Square Building Waltz* from *Minimusica*. This passage features a tone color change, which creates an echo effect (mm. 28–31) before returning to the normal range. Note that Oliver instructs the guitarist to gradually return to normal position using an arrow.

Example 5.2: Tone color change in *Reliquiarum 3: Square Building Waltz* from *Minimusica* by John Oliver (mm. 24–32)

A tone-color change can also be used to demarcate the beginning of a new section or to separate musical ideas. Roddy Ellias uses this technique in the second movement of the sonata *Emptying*, entitled *Shuffle Boogie*. The movement opens with a muted sound, also called guitaristic *pizzicato*, and gradually settles into the naturale (or normal) sound color (marked ord. in example 5.3).

**Example 5.3: Opening of *Shuffle Boogie* from *Emptying* by
Roddy Ellias (mm. 1–12)**

In example 5.4 (mm. 54–72), the return of this material is marked sul tasto, a marking that serves to distinguish it from the preceding "bluesy" section and to echo the feel of the opening section.

**Example 5.4: Tone color change in *Shuffle Boogie* from
Emptying by Roddy Ellias (mm. 65–72)**

The tone color changes again in m. 93 (example 5.5), with a return to normal playing position and the naturale tone color (marked ord.). The color change divides the arpeggios section that starts at m. 93 from the opening material that preceded it.

**Example 5.5: Tone color change in *Shuffle Boogie* from
Emptying by Roddy Ellias (mm. 93–112)**

Timbres controlled by the Left Hand, Position, and String Characteristics

On the guitar most pitches are available on multiple strings, particularly the

pitches in the instrument's middle range. Therefore, assigning the string on which to play

a note is not only a technical decision but also a musical one, creating the right sonority

for the character of the passage. Kachian writes: "For the left hand, timbral variety results

from the variation in the thickness and composition of the strings (metal-wrapped basses

vs. nylon trebles) and the difference in string tension found in the various positions."[58]

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[58] Kachian 2006, 51

Guitarists often make these position choices. Such fingering decisions doubtlessly reflect the performer's musical personality as much as they do the composer's intention. However, composers sometimes wish to take advantage of certain tonal qualities of the string, and in those cases would indicate their preference. Kachian ascribes the following characteristics to the different strings:

> The bass strings possess a sweet, cello-like sonority in their middle and upper positions and a capacity for punchy articulation throughout. They tend to be louder than the treble strings but may be used for soft playing as well. Melodies written on the bass strings are particularly favored by guitarists. This is due to their capacity to express a melody with a vocal quality, their longer sustaining capability, and their responsiveness to all types of vibrato.[59]

Roux requests that the melody in example 5.6 be played on the third and fourth strings. The advantage of these strings in this context is that the lower strings give a warmer tone and respond more to vibrato. This melodic moment benefits from this warmth and expressivity even when a large stretch is required from the E to the bass G in m. 63.

Example 5.6: String indications for tone color in
***Aurore Boreale* by Patrick Roux (mm. 61–63)**

Example 5.7 shows the opening of the third movement *Chorale* of the sonata *Emptying* by Roddy Ellias. Ellias requests that the B in the opening chord and in the third measure be played on the third string in order to evoke the *espressivo* character that the

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[59] Kachian 2006, 51

107

music calls for. A vibrato would not be possible if the B were to be played as an open string.

III - CHORALE

Example 5.7: Opening of *Chorale* from *Emptying* by Roddy Ellias (mm. 1–5)

In the case of the *Chorale* in example 5.7, having the composer indicate the string preference for the opening chords sets up a mood for the movement. The performer would be expected to maintain this atmosphere and sonority with similar fingering choices throughout the movement. In this way the string marking at the opening can be seen as a musical shorthand for the character of the movement.

Natural and Artificial Harmonics

Natural harmonics

Ricardo Iznaola explains that: "[Natural harmonics] are the upper partials of any fundamental pitch. On the guitar they are found in specific proportional subdivisions of the string length, measured in number of frets from the fundamental.[60] Natural harmonics can be produced at several points along the string. The most practical harmonics, in terms of audibility are produced at the half length point, twelfth fret; the third length, and two-thirds length points at seventh and nineteenth frets; and the quarter length and the three-quarter length points at the fifth and twenty-fourth frets. The harmonics at the fourth and

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[60] Ricardo Iznaola, *Kitharologus: The Path to Virtuosity* (Colombus OH: Guitar Heritage Inc. 1997), 70

ninth frets are also commonly used, but the harmonics at the third fret are rarely

employed.

According to Kachian:

> Two different types of harmonics can be produced on the guitar: natural and artificial. Unfortunately, several methods exist for notating harmonics, much to the detriment of clarity.

He adds:

> [Natural] harmonics are easily accessible along the string and are frequently incorporated into textures that are principally made up of non-harmonic pitches. On the bass strings, they are robust and percussive. When played on the treble strings, they retain the percussive initial attack to their sound but are considerably less penetrating. This type of harmonic is best reserved for the softest dynamic levels with the loudest practical dynamic being *mf.* One to six harmonic tones can be produced simultaneously.[61]

Ricardo Iznaola provides the chart in figure 5.1 to illustrate the location of harmonics

along the string, and uses the sixth string as an example.

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[61] Kachian 2006, 53

Figure 5.1: Iznaola's chart[62] of natural harmonic locations along the sixth string

John Oliver has dedicated three studies to harmonics technique, under the title

Nocturnum. The three studies focus largely on the most commonly used natural harmonic

types. Oliver chose a notation method that indicates all the elements of a note in order to

avoid the confusion that Kachian refers to[63]. Oliver indicates rhythm, audible pitch, and

the fret at which the harmonic is played. He marks the harmonic notes with an o above

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[62] Iznaola 1997, 71
[63] Kachian 2006, 53

the note. Oliver purposefully avoids adding any redundant information, such as string numbers, in order to help train the reader's memory and familiarity with the locations of natural harmonics. Note that Oliver does exceed the dynamic range recommendation of mezzo-forte. The reason for that could be that the dynamic marking he uses is relative within a context of harmonics as opposed to a texture of normal notes.

Example 5.8: Opening of *Nocturnum 1* from *Minimusica* by John Oliver (mm. 1–21)

Oliver calls for chords made-up of harmonics on several occasions, ranging from two to six notes at a time. The artificial harmonic at m. 19 is identified above the text. F natural is not a note that could be produced as a natural harmonic on a normally tuned guitar, thus the choice to employ an artificial harmonic.

The second study, *Nocturnum 2* (example 5.9), aims to balance the most commonly produced harmonics with those of the fourth and ninth frets, which are

somewhat less clear, particularly on the treble strings. Oliver has indicated the number

for the string on which the harmonic is to be played, as occurs in mm. 10, 12, 15, 25, 31,

36, and 50 (example 5.9), or the fret number as in m. 38.

Nocturnum 2

John Oliver

In the third study, *Nocturnum 3* (example 5.10), Oliver increases the tempo and also requires a combination of harmonics performed in the context of other techniques such as the arpeggio technique, which is called for in m. 5. Note that the only instance of an artificial harmonic occurs in m. 6, since the high A is not playable otherwise.

Example 5.10: *Nocturnum 3* **from** *Minimusica* **by John Oliver**

A good example of a mixed context, where harmonics and regular notes are juxtaposed is found in the final eight measures of the first movement *Calm* from Roddy Ellias' sonata *Emptying* (example 5.11). It is also a rare example of the utilization of the harmonic at the third fret on a treble string, which is called for in the final measure. This is effective because the dynamic range is very quiet, and the music fades away, with the final note being barely audible.
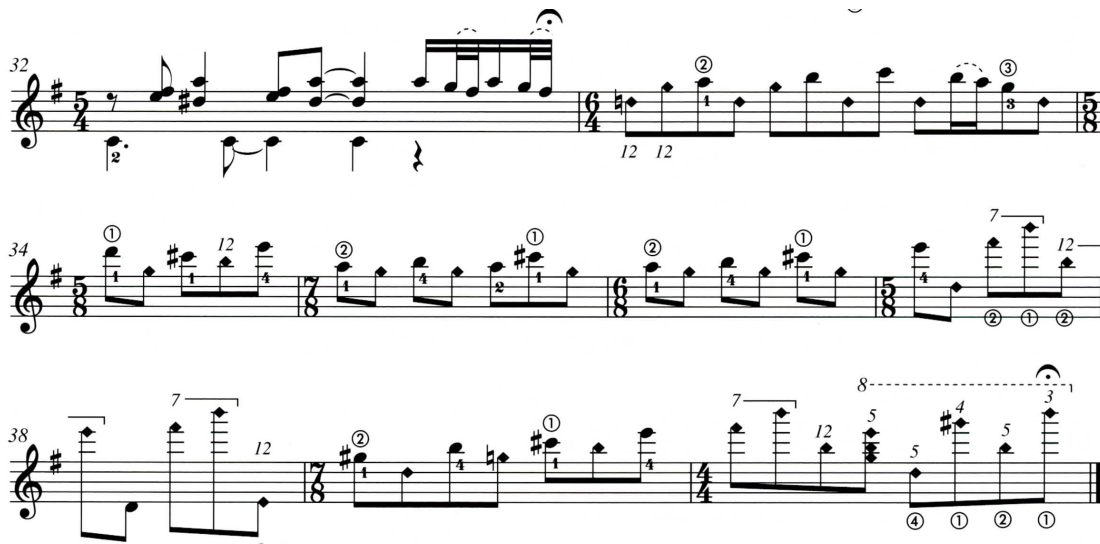
Example 5.11: Ending of *Calm* from *Emptying* by Roddy Ellias (mm. 32–40)

Note also the difference in notation used by this composer, the harmonics are identified by the use of the traditional diamond note-head shape. Pitches are marked at their audible pitch, the fret is indicated above the score, and some string indications are used.

Artificial harmonics

Kachian explains the approach to artificial harmonics:

> Artificial harmonics are produced by a comparatively more complex technique. It involves fretting the strings normally with the left-hand at any fret and lightly touching the string twelve frets above it with the right-hand index finger while the right-hand ring finger or thumb plucks the string, producing a pitch one octave higher than the fretted note.
> The artificial harmonic is a soft-spoken technique, the loudest practical dynamic being a *mp*. Its bell-like color, although similar to the natural harmonic, is noticeably less percussive. Considering the difficulty of playing artificial harmonics on the guitar, it is advisable to use them sparingly, to maintain a compact range of notes and to choose slow to moderate tempo.[64]

It is worth noting that while Kachian's explanation is quite clear and accurate, one could add that artificial harmonics do not have to be produced only at the octave. In other words, it is also possible to produce an artificial harmonic seven frets away from the note held by the left hand, or anywhere along the string while maintaining the appropriate proportional subdivision of the vibrating string. However, artificial harmonics most commonly call for the octave harmonic, because that is the clearest sounding harmonic.

In example 5.12 from Patrick Roux's *Aurore Boreale*, observe that in order to keep the twelve-fret octave harmonic, the composer uses non-existent fret numbers. There are usually nineteen frets on the guitar, while Roux refers to the 20th, 22nd, 24th and 25th "frets". This non-existent fret indication is used regularly in guitar notation. Guitarists are accustomed to finding the location for the artificial harmonics above the nineteenth fret.

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[64] Kachian 2006, 54–55
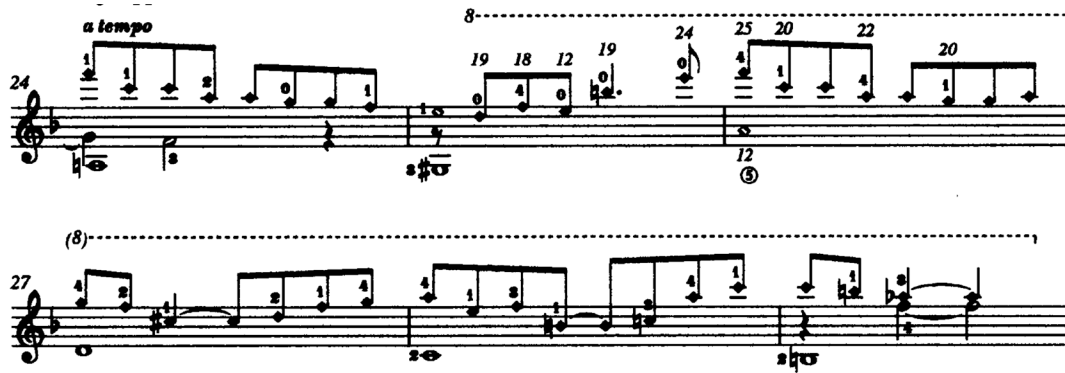
**Example 5.12: Artificial harmonics in *Aurore Boreale* by
Patrick Roux (mm. 24–29)**

Roux also uses artificial harmonics above the nineteenth fret in the concluding

passage of the piece (example 5.13). Roux adds another unusual element to examples

5.12 and 5.13. He mixes both types of harmonics by simultaneously producing natural

and artificial harmonics. In example 5.12 this occurs on the downbeat of m. 26, where the

harmonic note A is played at the 12th fret on the fifth string simultaneously with the F at

the imaginary 25th fret of the first string. In example 5.13 this happens in the downbeat of

the final measure, where the A is produced as a 7th fret harmonic on the fourth string

simultaneously with the high E on the imaginary 24th fret of the first string.

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**Example 5.13: Artificial harmonics at the conclusion of
Aurore Boreale by Patrick Roux (mm. 67–70)**

116

Conclusions and Implications

This document has highlighted the compositions of four contemporary guitarist-composers whose depth of understanding of the instrument has resulted in idiomatic and effective examples of guitar composition. Beyond the compositions' idiomatic value as well-crafted pieces for the guitar, these compositions represent excellent music that deserves academic and popular attention. These pieces are meant to be experienced in live performances where their full emotional and artistic impact can be felt and perceived by listeners. This music can and should be appreciated in performances. As this document has shown, it is also music that is well worth analyzing.

The works discussed in this document illustrate a variety of aspects of idiomatic composition for the guitar. These compositions demonstrate that the suggestions made by Kachian and Bream can be applied in creative and inspired ways, enabling great music to emerge in performance. By considering the technical implications of how to write for the guitar, the composer liberates the guitarist from having to struggle with the limitations of the instrument and allows the performer to focus on utilizing the many unique resources of the guitar in the service of the music on the page. Therefore, studying the pieces from an idiomatic perspective, as this document does, can lead to a deeper understanding of how to write for the guitar. It is hoped that the detailed descriptions of guitar techniques, timbres, textures, articulations, and dynamics would inspire future composers to approach the guitar adventurously and invite them to take advantage of the wealth of expressive possibilities that the guitar possesses.

Composers who are not guitarists would find great practical advice about idiomatic issues by accessing the resources on which this document relied. Chris

Kachian's excellent reference book[65] would surely answer many questions that such composers might have. Julian Bream's article[66] is clear, concise, and inviting. It provides very helpful advice from one of the guitar's greatest champions, a man whose knowledge of the guitar has inspired many great composers to write for the guitar. Bream's article, along with his many fine recordings, would undoubtedly continue to inspire generations of future composers.

It is also hoped that future generations of composers would have additional resources to which they could turn for advice. The dearth of information in instrumentation textbooks that Tom Schuttenhelm described in his article[67] is lamentable and greatly overdue for change. Composers encounter the guitar regularly in their studies, they hear it played in a variety of contexts in any music conservatory or university, and it is featured in multitudes of concerts with symphonies, chamber ensembles, and in solo recital. It is high time that these composers also encounter this ubiquitous instrument in their textbooks.

It is also felt that this document could point the way to future studies of highly idiomatic guitar works. There are numerous great composers working today whose works should be studied from a purely idiomatic point of view. Today's leading international guitarist-composers, Leo Brouwer, Sergio Assad, Roland Dyens, Nuccio D'Angelo, Carlo Domeniconi, Francis Kleynjans, among many others could provide ample fodder for similar studies.

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[65] Kachian 2006
[66] Bream 2003
[67] Schuttenhelm 2000

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