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*Viola Spaces* are often seen as interesting extra projects rather than valuable pedagogical tool that can be used to fill where other material falls short. These works can fill various gaps in the violist's literature, both as pedagogical and performance works. Each of these works makes a valuable addition to the violist's contemporary performance repertoire as a short, imaginative, and musically satisfying work and can be performed either individually or as part of a smaller set in a larger program (see Appendix A). They all also present interesting technical challenges that explore what are seen as extended techniques but can also be traced back to work on some of the fundamentals of viola technique.

Etudes for viola are often limited to violin transcriptions mostly written in the eighteenth, nineteenth, or early twentieth centuries. Contemporary etudes written specifically for viola are valuable but are usually not as comprehensive or as suitable for performance etudes as are *Viola Spaces*. Few performance etudes cover the technical varieties that are presented in these works of Garth Knox.

In this paper I will discuss the historical background of the viola and etudes written for viola. Many viola etudes written in the earlier history of the viola have not continued to be published; this study will also look at why some survived and others are no longer used. Compared to literature for the violin there are large gaps in the violists' repertoire that *Viola Spaces* does much to fill; furthermore many violinists have asked for transcriptions of these works. In the main body of this study, I will examine each

individual etude in *Viola Spaces* and discuss its pedagogical use, for studying both contemporary techniques as well as fundamental techniques of viola.

BEYOND EXTENDED TECHNIQUES: FUNDAMENTAL TECHNIQUES IN  
*VIOLA SPACES* OF GARTH KNOX

by

Simon István Értz

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Approved by

Scott Rawls  
Committee Chair

For my dear brother, Neil Kristóf Értz (January 1, 1966 – October 5, 2016)  
My best man, master violin-maker, and maker of my viola, that brought this music to life.

APPROVAL PAGE

This dissertation, written by Simon István Értz, has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

Committee Chair Scott Rawls

Committee Members Marjorie Bagley

Kevin Gerald

David Teachout

October 12, 2016  
Date of Acceptance by Committee

October 12, 2016  
Date of Final Oral Examination

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## CHAPTER I

### INTRODUCTION

#### Objectives

Garth Knox's *Viola Spaces*<sup>1</sup> are viewed primarily as etudes that explore extended techniques; they can be used to explore the fundamentals of standard viola technique and represent a valuable addition to the limited collection of performance etudes written specifically for the viola.

Studies exploring extended techniques, in particular *Viola Spaces*, are often overlooked as works suitable for developing fundamental technical skills. By their very nature studies push the boundaries of what is expected of the violist in most performance literature. All studies and etudes are in some respects 'extended' as they push what is normally expected of violists to extend their technical boundaries. Garth Knox, in each of his concert studies, starts with a standard technique found in the repertoire and explores almost limitless possibilities. Nearly all of the technical demands required of the violist can be traced back to the technique acquired at an earlier stage of development. Therefore, the purpose of this study is to outline the benefits of using works inclusive of extended techniques, specifically *Viola Spaces*, to teach the fundamentals of viola technique.

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<sup>1</sup> Garth Knox, *Viola Spaces* (Mainz, Germany: Schott), 2009.

### Justification

Too often, works that contain extended techniques are pushed to the sidelines and explored only if there is a particularly strong interest or sufficient time after the standard works and etudes are done. The value, both musically and technically, of these works can be overlooked as something extra and so removed from standard literature that they might not be given serious pedagogical consideration.

Etudes written specifically for viola are few in number compared to those found for the violin. Historically, violists have often used transcriptions of violin etudes. The earliest examples of etudes written for viola are from the early nineteenth century and include Rolla, Bruni, and Hoffmeister and perhaps the most used today, the Campagnoli caprices. Many of the etudes written in the nineteenth century are now out of print. In her 2012 dissertation “Rethinking Viola Pedagogy: Preparing violists for the Challenges of Twentieth Century Music,” Molly Adams Gebrian suggests that because violinists were often teaching viola they would use violin etudes; consequently, many of the viola etudes were not republished.<sup>2</sup> In the twentieth century, composers including Alfred Uhl, Lillian Fuchs, and Michael Kimber have provided many important additions to the viola etude repertoire. Compared to the rest of the twentieth century viola etude repertoire, *Viola Spaces* are unique in their suitability to performance, their scope and breadth in exploring extended techniques, and their appropriateness for pedagogy.

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<sup>2</sup> Molly Adams Gebrian, “Rethinking Viola Pedagogy: Preparing Violists for the Challenges of Twentieth Century Music” (Doctoral Dissertation, Rice University, 2012), 23.

### Related Research

Three dissertations that include references to Garth Knox's *Viola Spaces* are Molly Adams Gebrian's "Rethinking Viola Pedagogy: Preparing Violists for the challenges of Twentieth-Century Music," written in 2012, Emily Jensenius's "An Annotated Bibliography of Selected Viola Works for Pedagogy of Contemporary Musical Styles and Techniques," written in 2014<sup>3</sup> and Sarah Marie Hart's "The Violist as Composer" written in 2015.<sup>4</sup> Gebrian's work is a comprehensive approach to preparing violists to play the standard solo, chamber, and orchestral works of the twentieth and twenty-first century. Gebrian discusses how the traditional studies of Campagnoli, Kreutzer, Rode, and Dont do not prepare students for much of the musical language encountered in music written in the last 100 years, and she suggests an alternative approach. Jensenius's study is an overview of works written for viola in a contemporary style. Hart's study is an overview of her three doctoral recitals, all containing works by only violist composers; in her appendix she includes a comprehensive list of violist-composers. None of these dissertations attempts to show the relevance of studying contemporary techniques to improve students' overall mastery of viola technique. Interestingly, *Viola Spaces* was published only seven years ago in 2009, and already three dissertations have made significant references to these works.

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<sup>3</sup> Emily Jensenius, "An Annotated Bibliography of Selected Viola Works for Pedagogy of Contemporary Musical Styles and Techniques" (Doctoral Dissertation, Florida State University, 2014).

<sup>4</sup> Sarah Marie Hart, "The Violist as Composer" (Doctoral Dissertation, University of Maryland, College Park, 2015).

## CHAPTER II

### BACKGROUND

#### **Historical Background of Etudes Written for Viola and Other Transcriptions of Etudes Used by Violists**

The history of instrumental performance etudes is perhaps most firmly rooted in the compositions of nineteenth century virtuosi such as Liszt, Paganini, and Chopin. These composers were best known in their day as performers and have left a valuable legacy of performance etudes and other literature for their respective instruments. In comparison, the history of the viola etude is thin. The main reason for this disparity is that the viola was still not known as well during the nineteenth century as a solo instrument compared to the violin or even the cello. Most of the nineteenth century viola etudes used today are either transcriptions of violin etudes (Kreutzer, Rode, Gavinee, and Dont) or written by violinists for the viola (Campagnoli). Scales are often also transcriptions from the violin (Galaman and Flesch) as well as exercises of Schradieck and Svecik. Steven Lewis Kruse wrote about the etudes written specifically for viola between 1780 and 1860 noting that they are of a lower technical standard than their equivalents for violin.<sup>5</sup>

Etudes specifically for viola in the early nineteenth century include works by Schneider (1802), Hoffmeister (1803), Campagnoli (1805), Cartier (1806), Alessandro

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<sup>5</sup> Steven Lewis Kruse, "The Viola School of Technique: Etudes and Methods Written between 1780 and 1860" (Doctoral Dissertation, Ball State University, 1985), 117, Proquest (8518670).

Rolla, Antonio Rolla and Bruni (1811). Other than the Campagnoli, all of works by these composers are short simple pieces that do little for the advancement of viola technique. The origin of the Casimir-Ney *Preludes* and even their dates of composition are uncertain, but they are probably from the latter nineteenth century. These are truly virtuosic works and fall at the opposite end of the technical spectrum of the other nineteenth century viola etudes. These etudes are almost too difficult to be used as study material for developing technique and are more comparable with Paganini's *24 Caprices* as a set of virtuoso performance etudes.

Viola etudes written specifically for viola in the latter nineteenth century include those of Richard Hofmann (1844–1918). His opus 86 etudes are the most commonly used today and are quite simplistic melodic etudes suitable for the beginning student.

Clemens Meyer's (1868–1958) opus 3 etudes were first published in 1894 are also suitable for elementary students and the only other ones from the late nineteenth century still used today. Ritter and Naumann also wrote etudes however those works are now out of print.

Many of the etudes written in the nineteenth century are now out of print. In her 2012 dissertation "Rethinking Viola Pedagogy: Preparing violists for the Challenges of Twentieth Century Music," Molly Adams Gebrian suggests that because violinists were often teaching viola they would use violin etudes; consequently, many of the viola etudes were not republished.<sup>6</sup> In the twentieth century, composers including Alfred Uhl, Lillian Fuchs, and Michael Kimber have provided many important additions to the viola etude

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<sup>6</sup> Gebrian, 15.

repertoire. Fuchs's tenure as a viola professor at both the Manhattan School and Juilliard did much to contribute to the continued use of her works. Lillian Fuchs used her own etudes to teach and many of her students who continued on to pursue teaching careers and maintained the use of her studies with their own students. What makes Knox's works unique is their suitability to performance as well as their appropriateness for pedagogy.

### **The Violist as Composer**

Composers writing for the instrument on which they perform offer a unique contribution to their instrument's repertoire. They possess an unparalleled understanding of their instruments' capabilities and strengths and, as such, are the most qualified to write music that works well for their particular instrument. There are many composer violists, especially as the viola began to gain more recognition in the twentieth and twenty-first centuries; but perhaps none have such a deep understanding of the viola's capabilities as Garth Knox. Having performed in two of the world's leading contemporary music ensembles (The Arditti Quartet and the *Ensemble Intercontemporain*) he has performed and gained an understanding of unparalleled amounts of music written for the viola.

As the viola gained recognition as a solo instrument in the twentieth century, a history has developed of violists writing for the viola, perhaps the most famous being Paul Hindemith (1895–1963). As well as being a well-known composer, Hindemith was an accomplished violist who premiered the Walton Viola Concerto after Lionel Tertis (1876–1975), for whom it was written, turned it down. Even though Lionel Tertis did not premiere the Walton Concerto he did much for the advancement of the viola as a solo



instrument. Many of his contributions were limited to more traditional repertoire as well as contemporary music written in a conservative style. He was known to be quite conservative in his musical tastes and even admitted later in life that he just did not understand the musical language at the time.

Other important violists who wrote for viola include the Scottish violist William Primrose (1904–1982), who is perhaps best known for his many transcriptions. Maurice Vieux (1884–1951) did much to revive the French school of viola playing. He taught for many years at the Paris Conservatoire and is best known for his Etudes. English violist Rebecca Clarke (1886–1971) is now best known for her viola sonata of 1919. The work was written for a chamber music competition and was tied with the Bloch Suite for first place in the competition until the adjudicators discovered the piece written by a woman, resulting in being awarded second place. Lillian Fuchs (1901–1995) enjoyed a long and distinguished career both as a teacher and a performer, but also left some shorter works for viola. Her book of etudes is perhaps the most widely used works of twentieth century viola etudes used today. Alfred Uhl (1909–1992) was an Austrian composer who, although played viola, is perhaps best known for his pedagogical works written for clarinet. He wrote a book of thirty etudes for viola that introduce some more adventurous tonalities than were found in previous viola etudes.

Many violists who are still writing for viola today include Atar Arad, who was born in 1945. Arad played in the Cleveland Quartet for many years and now teaches at Indiana University. He is the only violist to have won the Queen Elizabeth Competition and has written many works for viola. His works include the 1992 Sonata for solo viola,

twelve caprices for solo viola, and *Tikvah* (2008) for solo viola. Michael Kimber has held teaching positions in various universities and has written a substantial amount of music for strings. He is perhaps best known for his *Twentieth Century Idioms* for solo viola; these studies explore extended techniques found in more contemporary works. Kenji Bunch (born 1973) has a career as a violist but is mostly known as a composer. He has written several works for viola including *The 3 G's* where the A and C strings are tuned down to a G. Sally Beamish (born 1956) had a long and distinguished career as a violist but now is primarily a composer. Beamish has written many works for viola, including three concertos, *Pennillion* (1998) and *Ariel* (2012) for solo viola, and *Halbkreis* (1982) and *Sul Skerrie* (1995) for viola and piano. Brett Dean (born 1961) is an Australian violist who played for many years with the Berlin Philharmonic and now lives in Australia and composes. He has made significant contributions to the viola repertoire including *Intimate Decisions*, *Skizzen für Siegbert*, and *One of a Kind* for solo viola, as well as *Rooms of Elsinore* for viola and piano. Simon Rowland Jones (born 1950) has a distinguished career both as a performer, including ten years in the Chilingirian Quartet as a founding member and teacher but now devotes most of his time to composing. His earlier works for viola date back to 1979 (*Seven Pieces for Viola*) and also include *Nocturne* (1986) for viola and piano, *Lux Perpetua* (2005) for solo viola, and *Wiegenlied Variations* (2008) for viola and piano. Scott Slapin (b. 1974) is an American violist with a successful performing career who now devotes more time to composing and has made a large and interesting contribution to the viola repertoire including many works for two violas that he performs with his wife Tanya; together they have recorded five albums of

his works. The Primrose International Viola Competition commissioned his 2007 *Recitative* for solo viola as their 2008 required work, which has now become one of two required works to audition for the Aspen Contemporary Ensemble.

### **Garth Knox Biographical Notes**

Garth Knox was born in Ireland in 1956 but grew up in Scotland. After his studies in London he joined the *Ensemble Intercontemporain* at the invitation of their music director, Pierre Boulez. He spent seven years there before joining the Arditti Quartet in 1990 where he stayed for the next eight years. In both these groups Garth Knox premiered many new works playing in major concert halls all over the world. Since leaving the quartet he continues to give premieres of works by major composers (Henze, Ligeti, Benjamin, Schnittke, Ferneyhough, and Dillon) as well as compose works of his own. His compositions include many works for viola including *Viola Spaces* which was written for Nobuko Imai's *Viola Space* Festival in Tokyo in 2009. Garth Knox also performs and composes extensively for the viola d'amore.

Garth Knox was commissioned to write a quartet (*Satellites*) for the Kronos *Fifty for the Future* project, a unique string quartet commissioning, education, and performance project. This is a four-year project (2016–2020) commissioning fifty works from composers worldwide that the Kronos Quartet will perform and make recordings, parts, and scores available online.

### **Selected Works of Garth Knox**

Viola Spaces	2009	Solo Viola
Viola Spaces for Two	2015	Two Viola
Fuga Libre	2008	Solo Viola

Three Weddings and a Fight	2013	Solo Viola
Jonah and the Whale	1990	Viola and Tuba
Malor me bat	2004	Viola d'amore and cello
Goldberg's Ghost	2007	Viola d'amore and marimba
La Valse de La Vineuse	2004	Viola d'amore, Clarinet, Violin, and Cello
Ockeghem Fantasy	2001	Viola d'amore and five Violas
Marin Marais Variations	2007	Four violas
Wild Animals	2011	Solo Viola and four instruments
Satellites	2015	String Quartet
The Weaver's Grave	2012	String Quintet
Nothing but the Truth	2015	String Sextet

### **The Fundamentals of Viola Technique**

Before looking at the individual etudes in Garth Knox's *Viola Spaces* and how they are used in teaching the fundamentals of viola technique, I will present some of the fundamental techniques. Technique is often broken down into two main sections, the right arm and the left hand, and/or arm. There are of course other considerations when teaching that are not included here that include, but are not limited to, posture and breathing.

In Simon Fischer's excellent book, *Basics*, he breaks the basics of technique into seven main sections, the first three dedicated to the right hand and arm and the last four to the left hand and arm.<sup>7</sup> Each of these sections is broken into several smaller sections which are easily related to some of the fundamentals addressed in Garth Knox's *Viola Spaces*.

The main technical focus of the first two etudes, *Sul ponticello* and *Sul tasto*, is on bow placement in relation to the bridge; Simon Fischer refers to this as the *Soundpoint* and devotes a seven-page section to this bow placement consideration. Other right arm

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<sup>7</sup> Simon Fischer, *Basics* (London: Peters Edition, 1997).

techniques covered in these two etudes are bow speed and bow pressure. In the third etude, *Glissando*, the main technique covered is shifting and the technical issues related to shifting, to which Simon Fischer dedicates a whole section of over forty pages. These first three etudes deal most directly with these three fundamentals (i.e., bow placement, bow speed, and bow pressure). The other etudes address additional fundamentals such as left hand position (etudes 4, 6, & 7), tension in the arms (etudes 5, 6, & 8), intonation (etude 7), and bow control (etude 5 & 8).

**CHAPTER III**  
***VIOLA SPACES***

***Viola Spaces* as Performance Pieces, Etudes, and Their Application to Solo,  
Chamber, and Orchestral Literature**

Garth Knox's *Viola Spaces* inhabit a unique place in today's viola literature. In addition to being the only set of studies written specifically to address the broad scope of extended techniques, they are also unusually successful short performance character pieces. At first glance, *Viola Spaces* look like a volume intended to address extended techniques specifically or techniques encountered in music written in the last fifty years. However, they are also valuable works for developing some of the fundamentals of viola technique. The techniques explored in *Viola Spaces* are not new techniques but are familiar techniques explored in new ways.

In his introduction to *Viola Spaces* Garth Knox addresses the problem many musicians face when studying contemporary music; "many of them are discouraged by the complexity of what they are asked to do, and are ready to abandon the piece because it is 'too difficult.'"<sup>8</sup> The value of these works is primarily a musical one; each piece not only addresses a specific area of an extended technique but also can be performed as a musically satisfying work. The music also includes a few paragraphs of performance instructions for each of the eight pieces.

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<sup>8</sup> Garth Knox, Notes to *Viola Spaces* (Mainz, Germany: Schott, 2009), 1.

Much of Knox’s introduction focuses on relaxation and finding the most comfortable position and posture to play. The introduction and specific instructions for each etude also emphasize the importance of experimentation and finding ‘what works best’ for each individual performer. His videos on YouTube serve as reviews of his performances and also reinforce his emphasis on relaxation and experimentation.

Knox’s choices of notation fall between two possible extremes of using the barest and simplest notation and notating every exact pitch, timing, and sound. When composing with unusual approaches to familiar techniques, finding notation that will be immediately familiar and understandable to the majority of performers can be challenging. Consequently, new notations and directions are sometimes needed. The introduction provides clear and helpful directions, but Knox stresses these instructions are to be used as a point of reference rather than ‘the right way’—his language encourages experimentation and using what works best for each individual performer, e.g., “experimenting with the bow grip.”<sup>9</sup> Earlier in 2016 Knox published *Viola Spaces for Two*, the same works arranged for two violas.

### **No. 1: Sul Ponticello “Beside the bridge”**

*Beside the bridge* addresses the technique of playing *sul ponticello*, literally meaning on the bridge. In practice, however, the term can mean playing close to the bridge or even on the bridge. As one plays closer to the bridge there is more string tension, highlighting the higher overtones that are heard as part of the sounding pitch. Many different types of *sul ponticello* exist. This short piece explores a variety of types

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<sup>9</sup> Knox, Notes to *Viola Spaces*, 1.

as well as crossing and playing behind the bridge. When learning *sul ponticello* or even regular bowing as a beginning string player there is a danger of the bow slipping onto the wrong side of the bridge and producing a scratchy sound. Knox explores this idea to produce a “soft and pure (if unpredictable!) note.”<sup>10</sup> This short work is devoted entirely to various degrees and forms of *sul ponticello* playing, which demands consistent control of the bow placement distance from the bridge.

The earliest commonly-cited use of notated *sul ponticello* would be 1830 in Berlioz’s *Symphonie Fantastique*,<sup>11</sup> even though there is a short passage where Beethoven also used this at the end of the scherzo of his Opus 131 quartet in 1826. In their excellent book *The Contemporary Violin, Extended Performance Techniques*, Patricia and Allen Strange reference Sylvestro di Ganassi and his thesis written in the mid-sixteenth century as an early example of the use of *sul ponticello*; “that to achieve a stronger and harsher sound, one should play near the bridge.”<sup>12</sup> Patricia and Allen Strange cite many examples of compositions using more extensive and specific notations of *sul ponticello* written throughout the twentieth century; what distinguishes Knox’s compositions is that each technique is explored solely in its own individual etude.

Garth Knox provides excellent introductions to each study with performance suggestions as well as possible performance problems and solutions; he also suggests how each study might be a helpful pedagogical tool. In the first etudes Knox advises “Using a fast light bow brings us to think about using an appropriate bow grip. This

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<sup>10</sup> Knox, Notes to *Viola Spaces*, 1.

<sup>11</sup> Stanley Sadie, “Sul ponticello,” *The New Grove Dictionary of Music and Musicians*, eds. Stanley Sadie and J. Tyrrell (London: Macmillan, 2001), 24: 704.

<sup>12</sup> Patricia Strange and Allen Strange, *The Contemporary Violin, Extended Performance Techniques* (Berkeley, CA: University of California Press, 2001), 3.



stroke works best with light fingers, not too far apart on the bow and perhaps experimenting with holding the bow nearer the tips of the fingers.”<sup>13</sup>

As one of the most technically approachable of these works, *Beside the bridge* makes a good starting point for exploring Knox’s works. In the first twenty measures, only measure thirteen and fourteen lie outside first position, and these are whole notes that can both be played in fifth position on the A string. This approach gives the performer time to explore the sensation of playing consistently on the bridge both in terms of how it feels and also how it sounds. As in all of these works, there is a sense of exploration and experimentation into a new sound world and technique that opens each etude. The majority of the note lengths in the first twenty measures are whole notes and half notes with only four quarter notes and one eighth note. While this opening is simple, it also covers a wide range of the instrument, from the open C to the B, a span of almost three octaves. This opening gives the performer a chance to explore how the instrument resonates throughout its range playing on the bridge. From measure nineteen, trills, eighth note triplets, and then sixteenth notes are introduced. Gradually, different techniques and sonorities are introduced to challenge the violist to extend traditional *sul ponticelli* techniques and explore new sound possibilities. Some of these techniques include ‘irising’ which means starting with the bow in a more normal placing from the bridge and moving in and out of *sul ponticello* using a very fast bow speed and no pressure while adding a crescendo and diminuendo. Irising is a useful exercise in consciously adjusting the position of the bow in relationship to the bridge; it calls for

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<sup>13</sup> Knox, Notes to *Viola Spaces*, 1.

quite extreme lateral movement that will make subtle adjustments much easier. Even when playing regular *sul ponticello* one is forced to keep the bow in one position. If the bow comes too close to the player, it crosses the bridge, if the bow wanders away, the *sul ponticello* sound will be lost. This exercise is excellent practice for keeping the bow straight when playing in the regular position. “The important thing is to listen to the sound in the right way, paying attention to the upper harmonics, and keeping the bow fast and light. The absence of downward pressure gives great mobility to the bow and the rapid strokes become effortless.”<sup>14</sup>

Another technique explored in this etude is playing behind the bridge. Again, this technique is explored first with alternating whole notes, then half, then quarter, and finally eighth notes (see Figure1). In addition to developing control of one’s contact point when playing *sul ponticello*, this etude demands a fleetness in the bow arm that can be translated to more flexibility in varying bow speeds.

Donald Weilerstein of the Cleveland Quartet has recommended that quartets practice playing passages that cause ensemble problems *sul ponticello*. The extra high overtones produced in *sul ponticello* help hear exactly where the ensemble issues are.

This creates many high overtones. These “rub” together and make a tighter knit more unified quartet sound. The next step in the rehearsal process is to play half pont. emphasizing the high overtones this creates. The third step is to play about one sixty fourth pont. In practically every case when I’ve suggested this to quartets this has resulted in a tighter knit, more unified and therefore more communicative quartet sound. The same process also works particularly well for students who need to play with more high overtones in their sound.<sup>15</sup>

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<sup>14</sup> Knox, Notes to *Viola Spaces*, 1.

<sup>15</sup> Donald Weilerstein (Personal email Communication, August, 2016)

Weilerstein goes on to say the same practice method can be used to help students produce a more focused sound.

The image shows a musical score for Viola Space 1, measures 51-65. It is written in bass clef. The first system (measures 51-54) contains several triplet markings and a dynamic marking of *sfz*. The second system (measures 55-61) starts with a *sim.* marking, followed by a *V* marking and dynamics of *sfz* and *fz*. The third system (measures 62-65) includes the instruction 'moving over the bridge, then back', a *V* marking, and dynamics of *sfz* and *f*. The score also features various bowing techniques indicated by 'x' marks on the notes.

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Figure 1. *Viola Space 1*, mm 51-65.

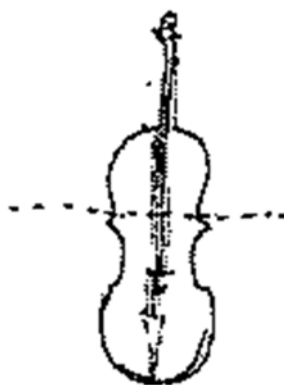
There are many examples of *sul ponticello* in orchestral, chamber music, and solo repertoire for viola with no other viola etudes being entirely devoted to this technique.

This first *Viola Space* makes an excellent work to be studied alongside works incorporating *sul ponticello* such as the first movement of the Shostakovich Sonata or Britten's *Lachrymae*.

## No. 2: *Sul tasto* "Ghosts"

*Ghosts* explores the opposite extremes of bow placement found in *Beside the bridge*. *Sul tasto* literally translates as 'on the touch' and is a general direction to play with the bow over the edge or even right over the fingerboard. In addition to the direction

in the title to play *sul tasto*, the piece is marked *sempre molto flautando* (a direction indicating to use a fast and light bow throughout). The introductory booklet includes a diagram for this etude showing the bow placement to be very low on the fingerboard, inline with the area just behind the corners of the c bouts (see Figure 2).



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Figure 2. Bow Placement for Etude Sul Tasto *Ghosts*.

Again, Knox adds notes on how this etude can be used for working on some fundamentals of viola technique, including supporting the instrument. “This study has very few position changes, and no vibrato, so the player could experiment with releasing the head as much as possible, and supporting the weight of the viola with the left hand. Also breathing sounds can be accompanied by real breathing.”<sup>16</sup> The breathing sounds he refers to are the sound of the bow playing on the bout of the instrument that is indicated at the very beginning and very end of this study and moments throughout (see Figure 3).

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<sup>16</sup> Knox, Notes to *Viola Spaces*, 2.

♩ = 44  
*sempre molto flautando*  
*pp*  
 play on corner bout

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Figure 3. *Viola Space 2*, mm 1-5.

Like all the *Viola Spaces*, this piece starts with a standard technique and goes on to explore the possibilities revealing almost limitless boundaries including playing so far over the fingerboard that when one bows on the C or A strings the bow will actually bow on the body of the viola; here Knox exploits the issue of the close string angles to explore new sound possibilities. The further from the bridge one bows the fewer harmonics in the pitch are heard and more of the noise of the bow hair is heard so the sound becomes more ‘airy.’

Both these first two studies are valuable for studying the control of bow placement in relationship to the bridge. Like *Beside the bridge*, *Ghosts* starts off slowly and almost from nothing, as if carefully and cautiously exploring a totally new technique and sound world. Getting the strings to speak while not playing on neighboring strings is difficult when playing in extreme *sul tasto*. Consequently, this study starts by exploring where one might play ‘by mistake.’ If one tries to play extreme *sul tasto* on the C string without hitting the G string he or she is likely to hit the side of the instrument with the hair of the bow, and this is how the etude begins, on the wood beyond the C string. The

most comfortable place for the left hand to support the viola is up against the bout of the viola. During the first stopped note, B flat in fifth position on the C string, the hand rests comfortably on the bout. The B flat is gradually introduced in the third measure against the sound of the bow on the wood. This sound is explored in the first two measures. As with the first etude there are no left hand position changes in the first ten (very slow) measures, and other than the wood of the viola only the C and G strings are used.

Because of the close proximity of the strings when playing *sul tasto*, very little pressure can be applied from the bow; this approach restricts the dynamic range making the loudest passage in this etude pianissimo. Being very accurate with the angle of the bow to the strings is necessary to avoid hitting neighboring strings.

*Sul tasto* is a technique that every string player is accustomed to using—too often unintentionally when a full focused sound is required. As orchestral musicians, violists are often asked to play *sul tasto*, or closer to the fingerboard. Too often this produces a non-descript sound but satisfies conductors because of the drop in volume. This etude encourages and develops the production of a variety of colors in very soft dynamics.

### **No. 3: Glissando “One finger”**

*One finger* is essentially a study in shifting. As the title *One finger* suggests, it is an exploration of shifting with one finger rather than shifting between two different fingers. All four fingers are used but the glissandi usually appear between one specific finger. As with all *Viola Spaces*, *One finger* uses the expressive quality of *glissandi* to create a musically fulfilling short performance piece. Exercises and studies devoted to shifting and *glissandi* are normally presented in the form of scales or scale-like studies

that are dry with little musical content. Consequently, such an etude can serve as a valuable and rewarding consolidation of previous work accomplished on shifting. Knox again provides useful commentary with this etude: “*Glissando* teaches the hand how to always be in playing position in relation to the string, and the fingers can learn a great economy of movement by this technique. It is also useful to experiment how to hold the viola during these slides.”<sup>17</sup>

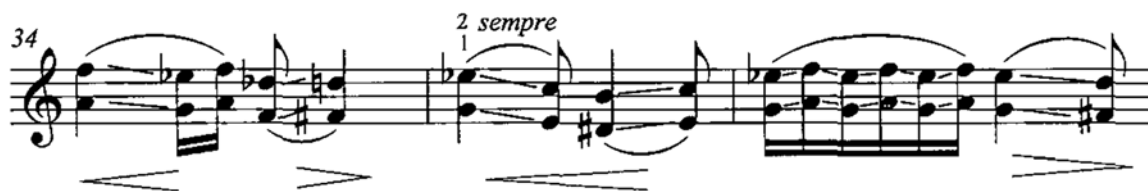
Again, Knox addresses other techniques that can be incorporated into these short works. The work starts with a small *glissando* between adjacent notes. Soon, however, the piece incorporates many kinds of *glissandi* not normally encountered in standard repertoire putting these *glissandi* into the category of extended techniques. Variations of these *glissandi* include slower sliding between notes up to two octaves apart (see Figure 4), some double stop *glissandi* (see Figure 5) and holding different fingers on different strings and sliding with the whole hand while the bow crosses between strings (see Figure 6).



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Figure 4. *Viola Space* 3, mm 53-54.

<sup>17</sup> Knox, *Notes to Viola Spaces*, 2.



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Figure 5. *Viola Space 3*, mm 34-36.

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Figure 6. *Viola Space 3*, mm 38-41.

This study is also useful for exploring longer shifts. Most etudes written for shifting and playing in higher positions work on shorter shifts and then gradually work up to higher positions through a series of shorter shifts.

These techniques are all used with specific sound goals, Knox talks about imitating the human voice, exploring some of the sounds heard in string playing from



other musical cultures, as well as “to sound like an old gramophone with a winding handle, losing its pitch stability” and an “underwater” sound (see Figure 7).<sup>18</sup>



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Figure 7. *Viola Space 3*, m 37.

In most etudes there is usually a focus on one particular technical issue but they also can be used to work on various areas of technique. The title of this etude, *Glissando*, does not give away the multitude of variations of this technique that are explored. The *glissandi* range from a half step slide on one string to multiple octaves across all four strings. In his introduction Knox gives clear directions to specific areas of fundamental technique that can be developed.

Glissando teaches the hand how to always be in a playing position in relation to the string, and the fingers can learn a great economy of movement by this technique. It is also useful to experiment how to hold the viola during these slides, noticing that during an upward slide, it is not always necessary to use the head to hold the viola, as the hand is bringing the instrument towards you. And on a downward slide, it is important to understand how to use the minimum of resistance to prevent the viola moving away, and especially important to observe in which direction this resistance is useful, and in which directions it is not.<sup>19</sup>

<sup>18</sup> Knox, Notes to *Viola Spaces*, 2.

<sup>19</sup> Ibid.

The long fast shifts, such as the ones found in the last four measures of this etude, help promote freedom of motion in the left arm that allows the ability to release the left hand when shifting.

#### **No. 4: Pizzicato “Nine fingers”**

Although there are very few etudes dedicated entirely to pizzicato, Emily Jensenius mentions two by Alfred Uhl and one by Nancy van de Vate in her excellent annotated bibliography.<sup>20</sup> Once again Garth Knox explores the endless possibilities of this technique using nine of ten fingers, as suggested by the title. *Pizzicato* is a technique often overlooked in study books and violists can often find themselves in trouble in even some of the simplest *pizzicato* passages found in quite standard repertoire.

In the repertoire of the twentieth and twenty-first centuries more complicated *pizzicato* passages are making ever more frequent appearances. An earlier example of some fairly complicated and continuous *pizzicato* appears in the fourth movement of Bartok’s fourth string quartet (1928). Most of the more elaborate *pizzicato* in a work such as Bartok’s has certainly not appeared in studies written around that time or earlier. As noted by Berlioz, as early as the mid-nineteenth century students were not taught to pizzicato. In his letter to Ferrand, “The study of violin is incomplete. Pupils are not taught to pizzicato.”<sup>21</sup>

Pizzicato appears frequently in the solo repertoire for the viola. Even in the simplest passages, such as the opening of the Shostakovich Sonata, students can often feel inadequately equipped because very little study material is devoted to pizzicato.

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<sup>20</sup> Jensenius, 46.

<sup>21</sup> Hector Berlioz, *The Memoirs of Hector Berlioz* (New York: A.A. Knopf, 2002), 434

Other examples in the standard repertoire include the opening of the second movement of the Rebecca Clarke *Sonata*, Britten's *Lachrymae*, and the link from the second to third movement of the Bartok *Concerto*. The 1937 *Sonata* of Hindemith also includes quite a challenging section of pizzicato in the second movement. Although all *Viola Spaces* have great performance appeal both from a players' and listeners' perspective, *Nine fingers* might be one of the studies with the most instant appeal because of the use of the wide variety of sounds not normally explored in *pizzicato*.

The eight works of *Viola Spaces* are certainly not in a strict progressive order but the first two or three might be considered more approachable technically than most of the others. *Nine fingers* certainly seems to present more challenges than the previous three etudes. It starts out relatively simply with the left hand in first position, first tapping percussively with just the first finger and then playing fifths within first position in the first four measures. The right hand starts off with slow pizzicato alternating between the first and second fingers, a technique he develops by the fifth measure with faster (three times as fast) alternating the same two fingers in sixteenth note triplets. If one is not in the habit of practicing pizzicato this etude takes time to learn, partly to slowly develop slight hardening of the skin, especially on the right hand thumb to avoid blisters. *Nine fingers* includes a multiple of different pizzicato techniques including tapping with the left hand (see Figure 8), fast pizzicato with alternating fingers (see Figure 9), double and multiple stops with both one finger and multiple fingers (see Figure 10), strumming (see Figure 11), left hand pizzicato used together with right hand pizzicato in polyrhythms

(see Figure 12), Bartok Pizzicato (see Figure 13), and two handed pizzicato (see Figure 14).

♩ = 72  
sempre pizzicato

① ② ① ② ① ② ② ① ③

pp

3 3 3 3 3 3

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Figure 8. *Viola Space 4*, m 1.

5

3 ② 3 ② ① > > 3

fz fz

3 3 3 3

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Figure 9. *Viola Space 4*, m 5.

non arpeggiato (3 fingers)

thumb *p* thumb *p* *f* *sim.* *p* *p*

thumb *f* thumb *fz* thumb *fz*

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Figure 10. *Viola Space 4*, mm 23-28.

strum 4 fingers strum 4 fingers

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Figure 11. *Viola Space 4*, m 63.

52 *sim.*

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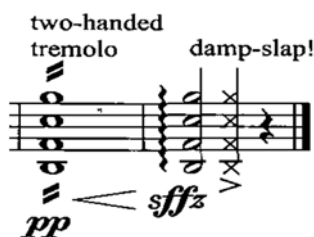
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Figure 12. *Viola Space 4*, mm 52-54.



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Figure 13. *Viola Space 4*, m 67.



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Figure 14. *Viola Space 4*, mm 77-78.

Extended pizzicato techniques are becoming more common in string repertoire; this etude is an excellent preparation for what might be encountered in works such as Kenji Bunch's *The 3 Gs*. Kenji Bunch, like many other string player-composers, explores an increasingly exciting range of pizzicato techniques that have been common among guitar players for centuries.

### No. 5: Tremolo “Rapid repeat”

Both measured and unmeasured tremolos are used throughout *Rapid repeat* with an emphasis on exploring the line between the two. Knox states, “Crossing the line

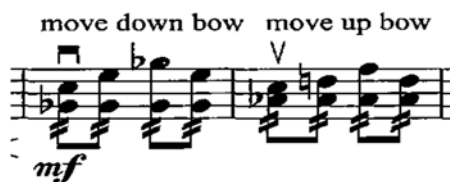
between measured and unmeasured is an exciting moment and is one of the main concerns of this study.”<sup>22</sup> Similar to the previous pizzicato etude, *Rapid repeat* explores a technique that is used often but has had very few etudes dedicated to it; Emily Jensenius mentions works by Alfred Uhl, Stephane Wiener and Ursula Mamlok<sup>23</sup> in which tremolo is used. One of the most common challenges to playing tremolo for a prolonged period is to avoid tension; achieving the rapid bow movement required by stiffening the right arm is easy, but this quickly leads to fatigue. Knox suggests avoiding staying in the same part of the bow to avoid tension. Such movement creates its own form of tremolo, moving up and down the bow while keeping up the tremolo (see Figure 15). Other tremolo techniques explored include double, triple, and even quadruple stopped tremolo (see Figure 16). According to Knox, “The final section (bar 142) features what I call ‘flying tremolo’ which is exactly what it sounds like. The stroke starts by throwing the bow as in *ricochet* then immediately picking up and continuing the bounce with an oscillating tremolo over two strings.”<sup>24</sup> (see Figure 17). Other techniques are incorporated including glissando (see Figure 18) and *ricochet* (see Figure 19). Tremolo is perhaps most often encountered in orchestral playing and generally viewed as one technique that is not given much variety. After studying *Rapid repeat* and the multiple tremolo techniques that are explored, standard orchestral tremolo will become relatively effortless. *Rapid repeat* is the only study in *Viola Spaces* that uses *scordatura* tuning (the C string is tuned down to a B flat), which helps produce a rich sonority in some of the double stop passages.

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<sup>22</sup> Knox, Notes to *Viola Spaces*, 3.

<sup>23</sup> Jensenius, 47.

<sup>24</sup> Knox, Notes to *Viola Spaces*, 4.



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Figure 15. *Viola Space 5*, mm 89-90.

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Figure 16. *Viola Space 5*, mm 111-119.

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Figure 17. *Viola Space 5*, mm 142-145.





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Figure 18. *Viola Space 5*, mm 162-164.



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Figure 19. *Viola Space 5*, mm 169-172.

Some of the most difficult passages in *Rapid repeat* come after prolonged sections of continuous tremolo as in the section from measure sixteen containing three and four part chords. Sustaining a four-part chord (in tremolo or not) is impossible but an impression of sustaining can be created by moving the arm between the notes quickly in an arpeggio-like motion. This, as Garth Knox states in his introduction, “helps the arm to relax.”<sup>25</sup>

<sup>25</sup> Knox, *Notes to Viola Spaces*, 4.

### No. 6: Harmonics “Harmonic horizon”

*Harmonic horizon* is perhaps the most challenging of all these works, both for the player and the instrument. I say for the instrument too because some of these upper partials have not been used before and time is needed for the instrument to respond; many of the higher partials are rarely used and are difficult to coax out of the instrument. “The instrument itself also has to learn to play these harmonics (in most cases they quickly get better and clearer) and this can bring benefits in opening up the sound of the instrument.”<sup>26</sup> This etude requires perhaps the most athleticism of all the pieces in *Viola Spaces*, covering the whole length of the fingerboard. Further, it is excellent for keeping the left arm free of tension. An appropriate preparatory study to this piece is Michael Kimber’s eleventh study in his *Twentieth-Century Idioms for Violists*; the Kimber study is much simpler than *Harmonic horizon* but is a good introduction to playing harmonics.<sup>27</sup> Berlioz also states in his letter to Ferrand, “Another aspect of violin technique that is not formally and systematically studied is the use of harmonics.”<sup>28</sup>

Knox explains the technique of harmonics in the opening instructions. “The sound of one note played on a string instrument is a complex combination of many ‘partial sounds.’ By touching the string lightly and with the left hand at strategic points on the string, we can obtain single partials, and these are called harmonics, the subject of this study.”<sup>29</sup> Because of the complicated array of harmonics, Knox uses a double staff throughout this etude, the lower for the fingered pitches and the upper for resulting

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<sup>26</sup> Knox, Notes to *Viola Spaces*, 4.

<sup>27</sup> Michael Kimber, *Twentieth-Century Idioms for Violists* (Iowa City, IA: Soundpoint Music, 2012).

<sup>28</sup> Berlioz, 434.

<sup>29</sup> Knox, Notes to *Viola Spaces*, 4.

pitches. Though commonly used, harmonics are usually explored only on the second, third, and sometimes fourth partials. In *Harmonic horizon* Knox uses the first ten partials within the first four measures (see Figure 20), as many of the higher partials will not sound easily and will be difficult to find. After weeks of trying to coax these notes from my viola I can find most of them but not always consistently. False harmonics are also used in this etude. False harmonics is the term used when one changes the length of the string by fully stopping a note with the first finger usually. Sometimes the second finger of the left hand is used and a higher finger is employed to produce a harmonic above the stopped note (usually a fourth or fifth partial). *Harmonic horizon* likely explores the widest range of techniques within the technique of harmonics. Elements from some other techniques, such as left hand tremolo (see Figure 21) and glissandi (see Figure 22) are also present.

Musical score for Viola Space 6, mm 1-5. The score is in 4/4 time and consists of two staves. The top staff, labeled "resulting pitches", shows a sequence of notes with diamond-shaped markers above them labeled 1 through 10, representing the first ten partials. The bottom staff, labeled "fingered pitches", shows the corresponding fingering and bowing techniques. Annotations include "sfz <>" at the beginning, "Harmonic finger pressure always" with a wavy line, and "bow rhythm" with "x" marks above the notes. The piece is marked "♩ = 52 slow, very free".

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Figure 20. *Viola Space 6*, mm 1-5.

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Figure 21. *Viola Space 6*, mm 26-31.

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Figure 22. *Viola Space 6*, mm 77-86.

### No. 7: Quartertones “In between”

*In between* was inspired by the Ligeti *Viola Sonata*. Knox says, “Many viola players’ first experience of quartertones will be Ligeti’s *Viola Sonata*, which is why this piece ends with a light-hearted implied reference to it.”<sup>30</sup> Of all the extended techniques used, quartertones might be the least employed and can quite easily be avoided totally throughout formal training. However, *In between* can be a valuable study in gaining an accurate knowledge and use of the fingerboard. Garth Knox introduces quartertones carefully, exploring both C sharp and C natural between B and D in first position on the A string for the first three measures of this etude before landing on the quartertone between them in the fourth measure.

Practicing quarter-tones might be one of the most valuable techniques for developing perhaps our most important ‘basic skill’—listening. According to Knox, “String instruments can play intervals of any size, the only restrictions being the size of the fingers, and more importantly, the limits of the ear.”<sup>31</sup> Taking time to explore where these ‘in-between’ notes exist forces one to slow down and ensure where regular half step notes occur. Quarter-tones are also explored against an open ‘drone’ string (see Figures 23 & 24) to help reinforce hearing exactly where these notes lie.

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<sup>30</sup> Knox, *Notes to Viola Spaces*, 5.

<sup>31</sup> *Ibid.*



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Figure 23. *Viola Space 7*, mm 18-22.



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Figure 24. *Viola Space 7*, mm 70-74.

### No. 8: Bow Directions “Up, down, sideways, round”

*Up, down, sideways, round* incorporates the most unusual techniques out of all these works and is perhaps the most adventurous of the *Viola Spaces* employing a new range of ways to use the bow along with new a term for each new bow use.

As the title suggests, rather than keeping the bow moving horizontally across the strings, all directions are explored creating some interesting new techniques and sound effects; *spazzolato* and *gettato* are two of these. *Spazzolato* is essentially brushing the length of the string by waving the tip of the bow from the heel in one position (see Figure 25). *Gettato* is dropping the bow, similar to a *ricochet* stroke but with less control. Knox

also combines *spazzolato* with a circular motion to produce what he describes as an “extreme helicopter effect.”<sup>32</sup> (see Figure 26).



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Figure 25. *Viola Space 8*, m 21.



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Figure 26. *Viola Space 8*, mm 67-68.

*Up, down, sideways, round* starts with the very simple sensation of the vertical drop motion and experiments with dropping the bow both to its regular position and also behind the bridge; this approach immediately introduces the two directions the bow is expected to move that are unusual in traditional repertoire (vertical and lateral motions). Lateral and vertical motions force some experimentation with the bow hold, the extreme

<sup>32</sup> Knox, Notes to *Viola Spaces*, 6.

demands of some of the strokes requires a much fuller grasp of the bow than the traditional bow hold. *Pan pipes* bowing is introduced in measure seventeen (see Figure 27), incorporating both the vertical drop of the bow with some lateral motion to produce a panpipe-like sound.



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Figure 27. *Viola Space 8*, mm 17-19.

*Spazzolato* is first introduced in measure twenty-one for two measures and then alternated with single measures of the vertical drop stroke. A circular bow motion is added in measure thirty-three that combines *spazzolato* with the traditional up and down bowing to produce a circular motion. This circular bowing continues for an extended fourteen measures and muscles in the forearm are felt being used that are not used in traditional bowing. While these are not traditional bow movements, this etude develops right hand strength and control.

### **Hot off the Press—*Viola Spaces for Two***

Published earlier this year (2016), *Viola Spaces for Two* offers a new dimension to the pedagogical possibilities of these works. These are the original works with a second viola part added—either to be used in a teaching setting or as performance works



for two. Although Knox states in his introduction that the second part other than in numbers one and seven are considerably simpler than the first parts, they are still fully independent parts that offer their own technical challenges.<sup>33</sup>

The second line adds a new responsibility to play with particular rhythmic precision; this is especially useful in slower moving passages as in the first etude (see Figure 28).

The image shows a musical score for two violas. At the top, it says "Sempre sul ponticello" with a tempo marking of a quarter note = 132. The score is divided into two staves: Viola 1 and Viola 2. Both are marked "pp". Viola 1 has a long, sustained note with a bow hair symbol above it, and a few notes at the end of the passage. Viola 2 has a continuous, rhythmic pattern of eighth notes throughout the passage.

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Figure 28. *Viola Space For Two 1*, mm 1-3.

Figure 28 also demonstrates how Garth Knox has added new material in the second viola part that did not appear in the original solo version; there are many more examples of this throughout all eight etudes.

<sup>33</sup> Garth Knox, Introduction to *Viola Spaces for Two* (Mainz, Germany: Schott, 2009).

## CHAPTER IV

### CONCLUSION

*Viola Spaces* occupy a unique place in that they are some of the only sets of etudes written for viola by a violist that are both valuable for expanding new techniques as well as interesting performance pieces. Studies exploring extended techniques, in particular *Viola Spaces*, are often overlooked as works suitable for developing fundamental technical skills. By their very nature, these studies push the boundaries of what is expected of the violist in most performance literature. Garth Knox, in each of his concert studies, starts with a standard technique found in the repertoire and explores the possibilities revealing almost limitless boundaries. Nearly all of the technical demands required of the violist could be traced back to a technique acquired at an earlier stage of development. Therefore, the purpose of the present study is to outline the benefits of using works inclusive of extended techniques, specifically *Viola Spaces*, to teach the fundamentals of viola technique.

The theme throughout all eight of these etudes is to find a relaxed playing position, something all violists struggle with throughout their career. There are various aspects of fundamental technique that are often taken for granted, but are forced to be reevaluated in these works; most obviously these aspects include the bow placement in relationship to the bridge and also how to hold the bow. These are the two most obvious right hand

techniques but the left hand is also included with shifting, intonation, and basic left hand position.

Fundamental techniques can be traced from all the extended techniques found in *Viola Spaces*. Any skill can be separated into simple movements that can be used to strengthen fundamental skills. The tracing back to fundamental skills from more advanced or extended skills discussed in *Viola Spaces* can be transferred to other contemporary works to help integrate contemporary repertoire inclusive of extended techniques into our daily study. The goal of using *Viola Spaces* to teach these fundamental techniques is to serve as a gateway into incorporating a wider variety of etudes and repertoire into regular use.

Too often, works that contain extended techniques are pushed to the sidelines and explored only if there is a particularly strong interest or sufficient time after the standard works and etudes are learned. The value of these works, both musically and technically, can be overlooked as something extra and so removed from standard literature that they might not be given serious pedagogical consideration. *Viola Spaces* can also become an incentive to work on fundamental skills as they bring new and unusual elements into use.

This year's publication of *Viola Spaces for Two* opens up new possibilities for teaching and performing these works. The collaborative element is valuable in teaching chamber music skills, such as a heightened awareness of pulse and learning to balance to another independent line of music.

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**Websites**

[www.garthknox.org](http://www.garthknox.org)

**APPENDIX A**  
**DMA RECITAL PROGRAMS**

Program 1

**Simon István Értz**  
Viola

**Christy Wisuthseriwong**  
Piano

Graduate Recital

Tuesday, April 15, 2014  
7 pm  
Music Academy of North Carolina

*Program*

**Suite No 4 in E flat major, BWV 1010**

**J.S. Bach**  
(1685-1750)

Prelude  
Allemande  
Courante  
Sarabande  
Bourees  
Gigue

**Viola Spaces 1, 2, 3, & 8 (2007)**

**Garth Knox**  
(born 1956)

1 Beside the Bridge (*sul ponticello*)  
2 Ghosts (*sul tasto*)  
3 One finger (*glissando*)  
8 Up, down, sideways, round (*bow directions*)

*Pause*

**Viola Sonata, Op. 147 (1975)**

**Dmitri Shostakovich**  
(1906-1975)

Moderato  
Allegretto  
Adagio

Simon Ertz is a student of Dr. Scott Rawls

In partial fulfillment of the degree requirements for the  
Doctor of Musical Arts in Performance

## Program 2

**Simon István Értz**  
Viola

**Inara Zandmane**  
Piano

Graduate Recital

Monday, October 27th 2014

7.30pm

Organ Recital Hall

*Program*

**Suite No 6 in G major, BWV 1012**

**J.S. Bach**  
(1685-1750)

Prelude  
Allemande  
Courante  
Sarabande  
Gavottes  
Gigue

**Viola Spaces 5, 6, 7, & 4 (2007)**

**Garth Knox**  
(born 1956)

5 Rapid Repeat (*tremolo*)  
6 Harmonic Horizon (*harmonics*)  
7 In Between (*quarter tones*)  
4 Nine Fingers (*pizzicato*)

*Pause*

**Five Pieces from Romeo and Juliet (1975)**

**Sergei Prokofiev**  
(1891-1953)

1 Introduction  
2 The Street Awakens  
3 Julia the Young Girl  
8 Romeo and Juliet meet Father Lorenzo  
5 Dance of the Knights

Simon Ertz is a student of Dr. Scott Rawls

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In partial fulfillment of the degree requirements for the  
Doctor of Musical Arts in Performance



## Program 3

**Simon István Értz**  
Viola

**Inara Zandmane**  
Piano

Graduate Recital

Tuesday, March 31st 2015  
5.30pm  
Organ Recital Hall

*Program*

**Suite No 5 in c minor, BWV 1011**

**J.S. Bach**  
(1685-1750)

Prelude  
Allemande  
Courante  
Sarabande  
Gavottes  
Gigue

**The 3 Gs (2005)**

**Kenji Bunch**  
(born 1973)

*Pause*

**Wiegenlied Variations for Viola and Piano (2008)**

**Simon Rowland-Jones**  
(born 1950)

**Sonata for Viola and Piano (1919)**

**Paul Hindemith**  
(1895-1963)

1 Fantasie  
2 Theme and Variations  
3 Finale (with Variations)

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**APPENDIX B**  
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University of North Carolina, Greensboro

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