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# Evolution of the Cello in Music

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# EVOLUTION OF THE CELLO IN MUSIC

A Capstone Project Presented in Partial Fulfillment  
of the Requirements for the Degree Bachelor of Music: Performance  
with Honors College Graduate Distinction at  
Western Kentucky University

By

Joshua C. Propst

May 2017

\*\*\*\*\*

CE/T Committee:

Sarah Berry, Chair

Dr. Brian St. John

Brittany Dodds

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I dedicate this thesis to my parents, Tom and Diana Propst, who are a great inspiration to me and have always encouraged and supported me throughout my journey toward becoming a professional musician.

## ACKNOWLEDGEMENTS

I would first like to thank Sarah Berry, my cello professor and first reader for this CE/T. She has helped me grow in my knowledge of the cello and music as a whole over the last four years; I would not have been able to complete this without her. I would also like to thank Dr. Brian St. John for being a reader for this project and for being a wonderful conductor and professor. Additionally, my gratitude goes to Ken Stein, my accompanist, and Shelly Burgess, my duet partner for “Come Together.” I am, again, thankful for my parents’ support throughout this process. Finally, I would like to acknowledge my primary music influences-Ben Sollee, Tom Morello, and Penny & Sparrow-who have inspired me to pursue music in a way that is unique to me.

## ABSTRACT

With this project, I have studied cello music written throughout many of the major musical eras in an attempt to discover the cello, specifically regarding playing style, technique, and tonal ability. The composers included in this project are Bach, Haydn, Dvořák, Pärt, and Amanti. Most of the major musical styles are represented, with a focus on baroque, classical, romantic, minimalism, and jazz. I performed this wide variety of pieces at my Senior Recital for the Western Kentucky University (WKU) Music Dept. The goal of the recital was to showcase the rich musical history of the cello and how cello composition technique progressed to where it is now, as well as to demonstrate the technical and musical abilities I've gained over the last four years as a cellist here at WKU.

At the end of the recital, I included two of my own song arrangements, "Come Together" by The Beatles and "Gold" by Penny & Sparrow. Both songs and music groups have greatly influenced me as a musician, and arranging and performing these songs for cello gave me a new appreciation for the music. I also chose these arrangements because of my eclectic tastes. In "Come Together", I employed a bluegrass fiddle technique called "chopping", and in "Gold", I used an electric cello and a loop pedal to simultaneously play the melody, harmony, accompaniment, and percussive beat.

In this thesis, I will give a brief history of each composer and a brief history and analysis of each piece. The sections of my thesis are: History of the Cello, The Classics (Bach, Haydn, Dvořák), Tintinnabuli and Jazz (Pärt, Amanti), and My Arrangements (The Beatles, Penny & Sparrow).

## VITA

### *EDUCATION*

Western Kentucky University, Bowling Green, KY May 2017  
B.M. in Performance – Mahurin Honors College Graduate  
Honors Capstone: *Evolution of the Cello in Music*

Greenwood High School, Bowling Green, KY May 2013

### *PROFESSIONAL EXPERIENCE*

WKU Pre-College Strings, WKU July 2016-  
Cello Faculty Present

### *AWARDS & HONORS*

Summa Cum Laude, WKU, May 2017  
1908 Founders Academic Scholarship, WKU, 2013-2017

### *PROFESSIONAL MEMBERSHIPS*

American String Teachers Association (ASTA)  
Suzuki Association of the Americas (SAA)

### *INTERNATIONAL EXPERIENCE*

Mission Trip with Living Hope Baptist Church: June 2016  
Clermont-Ferrand, France  
-Played multiple bluegrass/worship concerts throughout the city

### *PRESENTATIONS*

Eclectic Styles Masterclass with Christian Howe March 2014  
ASTA National Conference-Louisville, KY

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## HISTORY OF THE CELLO

The history of the cello is vital to observing its development over time. The cello is a member of the Viol da Braccio (Violin) family. Early famous cello makers include Andrea Amati, Andrea Guaneri, Gaspara da Salo, and Giovanni Paolo Maggini, whose models were much larger than the modern cello (30-31in vs. the modern 75cm).<sup>1</sup> Although Guaneri is thought to be the first to make a small-bodied cello, Antonio Stradivari (1644-1737) further developed and popularized the smaller body style of the cello that is common today. Because distance between notes was shorter, the smaller body allowed for increased dexterity and decreased left-hand tension. The instrument was originally held by being suspended between the calves. Endpins were developed in the late 17<sup>th</sup> to early 18<sup>th</sup> centuries, but they weren't widely used until the end of the 18<sup>th</sup> century. The creation and implementation of the endpin increased the cello's overall resonance and tone and allowed for better balance while playing; since then, the cello has retained its overall design.<sup>2</sup>

Advances in music technology and instrument design have paralleled those of technological advances in recent decades. In 1968, Mark Wood designed the first solid-bodied electric violin, which created many new opportunities for string instruments in the age of rock music. He later added a fret-system and three more strings to his model of the electric violin, bringing the sonic possibility of the electric violin even closer to that of an electric guitar. Since then, Wood, Ned Steinberger with NS Design, and Yamaha have all created professional-quality electric cellos. These three popular models all include a piezo pick-up system and a built-in pre-amp that allows players the ability to adjust several

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<sup>1</sup> Elizabeth Cowling, *The Cello* (London: Batsford, 1983), 32.

<sup>2</sup> *Ibid.*, 47.

aspects of their sound from the instrument. The NS Design cellos even have a switch that allows the player to switch between three different pick-ups: one for bowing (warmer), one for *pizzicato* (extra sustain), and one generic pick-up for a mixture of both. While the tone of electric cellos do not quite match the beauty of acoustic cellos, the ability to use amplification and effects pedals help to negate the difference in tone. The Wood and NS Design cellos especially revolutionized cello design in that both are fretted, Wood with actual frets and NS with dots. Both are also able to be worn with harnesses that allow the player to stand. This allows for much more freedom of movement and easier access to effects pedals (if being used), not to mention it is much more engaging to the audience to watch the cellist move around on stage.<sup>3 4</sup>

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<sup>3</sup> "History of Wood Violins," Wood Violins, accessed April 1, 2017, <http://www.woodviolins.com/history/>.

<sup>4</sup> "History," NS Design, accessed April 1, 2017, <https://thinkns.com/history/>.

## THE CLASSICS

The first portion of my recital was dedicated to music from three major musical eras: baroque, classical, and romantic. Because this recital was a chronological presentation of cello music throughout history, I felt compelled to begin my recital with a part of the most famous baroque cello work, and arguably the most famous cello music ever, Bach's *Suites for Solo Cello*. I chose to study and play the Courante and Sarabande from Suite III, both in C Major, but contrasting in style and structure.

Music from the baroque period (1600-1750) was different from previous styles in that it featured polyphony, basso continuo and figured bass, improvisation, and terraced dynamics. Polyphony is the simultaneous use of two melodies in a composition. This style of composing existed in medieval and renaissance music, but it wasn't heavily featured until the baroque era. Basso continuo is the running bass line of a baroque piece, often covered by a keyboard, cello, or bassoon, that primarily played for the entirety of a piece. Improvisation was used alongside basso continuo in that composers would often only write out the bass line for the keyboardist, and the musician would have to improvise the rest of the harmonies. This method of composition/notation is known as figured bass. Soloists would also frequently improvise trills and turns along with the written music in order to ornament the melody. Regarding dynamics, baroque composers would use terraced dynamics, sudden dynamic changes, for effect. J.S. Bach is the most famous baroque composer, and his music stands as a great example of music from the baroque period.

Johann Sebastian Bach was a singer, violinist, keyboard player, and generally regarded as the most influential composer from the baroque era. He was born into a family of musicians in northern Germany in 1685 and died in 1750. Bach studied harpsichord

under his brother, Johann Christian Bach, and was well received in the schools and monasteries of northern Germany because of his soprano vocal range. As he grew older and his voice developed, losing its soprano character, Bach continued to stay involved in music, playing violin in orchestra, accompanying choirs on harpsichord, and studying music.<sup>5</sup>

In 1703, Bach began his professional musical career by becoming the organist at Arnstadt. After disputes regarding his organ playing, which was viewed as too progressive, he left for an organist position at Muhlhausen in 1707. That year, Bach married his cousin, Maria Barbara. He became a member of the orchestra and organist of the court of the Duke of Weimar a year later. In 1714, Bach was promoted to Leader of the orchestra, playing violin, harpsichord, and occasionally writing and arranging some music. It was due to his work in Weimar that Bach's reputation grew so that he became one of the best known organists in Germany. In 1717, he left to become Chapel Master at Anhalt-Cöthen. The majority of Bach's compositional body of work comes from his years in Cöthen. His family life altered dramatically when Maria died in 1720. The next year he met and married Anna Magdalena, one of his regular music copiers. Bach became the Director of Choirs and Music in Leipzig in 1723, where he lived and worked the rest of his life.<sup>6</sup>

The Bach Cello Suites are believed to have been written between the years 1717-1723, while he was in Cöthen. Scholars are unsure as to the exact dates of the suites' composition, because there are no surviving copies signed by Bach. The earliest

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<sup>5</sup> Michael Sartorius and Lawrence Sartorius, "Johann Sebastian Bach: a detailed informative biography," Baroque Composers and Musicians, accessed March 12, 2017, <http://www.baroquemusic.org/biojsbach.html>.

<sup>6</sup> Ibid.

autographed copy remaining is Anna Magdalena's, entitled Suites for Solo Cello without Bass. H.A. Probst was the first to publish the suites, but not until 1825, over 100 years after their estimated completion.<sup>7</sup> The first four suites are written for a cello with normal tuning. The fifth is written in scordatura, where the top string is lowered a whole-step, and the sixth seems to be written for a five-string cello.<sup>8</sup> The suites were primarily used as exercises and good lesson material, and are not generally believed to have been intended as concert music. That changed, though, when Pablo Casals found a lost copy of the suites in a Barcelona music shop in 1890. He studied and performed the Bach Suites for Solo Cello, and they quickly became famous.<sup>9</sup> Now, the cello suites are arguably the most performed and well-known pieces in the cello repertoire. Musicians and scholars, even today, are baffled by the complexity and progressiveness of the Bach cello suites.

The first movement of *Suite III* I played was Courante. The origin of the courante is interesting. French courantes from the 18th century were considered slower, somber, more deliberate dances. The author of *Dance and the Music of J. S. Bach* argues that instead of courantes, those movements should be label "correntes".

The early eighteenth century Italian corrente is a virtuoso piece for violin or keyboard. It usually consists of continuous elaboration in eighth or sixteenth notes over a bass in fast triple meter, with simple textures, slow harmonic rhythm, and phrases of varying lengths.... Techniques of elaboration include arpeggiation,

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<sup>7</sup> Cowling, *The Cello*, 96.

<sup>8</sup> *Ibid.*, 98.

<sup>9</sup> *Ibid.*, 167.

sequential repetition, two melodic parts combined into a single line, figures resembling an Alberti bass, and passage-work covering several octaves.<sup>10</sup>

The courantes were labeled as correntes in the first published edition of the Bach Suites, which supports the above argument.<sup>11</sup>

Courante is movement three of *Suite III* in C major. The meter is in three and is generally performed at a moderately fast pace. The movement is almost entirely straight eighth notes, which is simple rhythmically, but it's a very awkward movement, as many of the shifts and/or bow changes can be frustratingly hard to cleanly execute. The movement also contains frequent arpeggiation and scalar motion in the bass line (meas. 21-23, 26-28, 49-53, and 65-73), much of which is hidden through the use of melodic sequences.

The sarabande most likely evolved from a Spanish dance with Arabic influences, and it spread to France in the 17th century and became a slow, stately court dance. Sarabande is movement four of *Suite III* in C major. The meter is in three, generally with an emphasis on beat two, and it has a slow tempo. This movement contains many more chords and actually appears to be written in four voices. The sarabande is slow, relaxed, and very expressive. Interestingly enough, multiple cadences are dovetailed, essentially masking several arrival points throughout the piece.

Bach's *Suites for Solo Cello* are incredibly vital for the instrument for multiple reasons. In *The Cello*, Elizabeth Cowling speaks to the impact of the cello suites.

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<sup>10</sup> Meredith Little and Natalie Jenne, *Dance and the Music of J.S. Bach* (Bloomington, IN: Indiana University Press, 2001), 128.

<sup>11</sup> Tim Janoff, "Baroque Dance and the Bach Cello Suites," *Baroque Dance and the Bach Cello Suites*, accessed March 29, 2017. <http://www.cello.org/newsletter/articles/mansbridge/mansbridge.htm>.

These Bach Suites are unique not only because they are an isolated phenomenon in cello literature, without prototype and without offspring, not only because such great music could be wrought out of one line of music, with a few double stops...but also because they offer kaleidoscopic possibilities for interpretation.<sup>12</sup>

In the baroque era, very few pieces featured the cello as a solo instrument, particularly unaccompanied. The suites are a prime example of baroque music for the cello. The cello line frequently alternates between representing the melody, the harmony, or the bass line, and occasionally, the cello covers all three. The cello suites also feature everything the cello can offer stylistically, technically, and musically, spanning nearly all of the sonic range of the cello.

The classical period (1750-1820), with its emphasis on pleasing variety and beauty, evolved from the improvisation and ornamentation of the baroque period. Classical composers strayed from the frequent use of polyphony with basso continuo, improvisation, and terraced dynamics to an emphasis on traditional homophony with melody and accompaniment, form and structure, and more gradual/varied dynamic shifts. The development of classical music and style was largely influenced by the works of Haydn. He introduced and greatly expanded upon the forms of string quartets and symphonies. I chose to perform the Haydn *Cello Concerto in C* for my classical piece, both because of Haydn's influence on classical music and this concerto's influence on cello performance today.

Franz Joseph Haydn was an Austrian composer who lived from 1732-1809, and was famous for writing the most symphonies of any composer throughout history (104

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<sup>12</sup> Cowling, *The Cello*, 98.



confirmed, 106-107 estimated). Haydn's musical talent was recognized from a young age; The Life of Haydn describes a great example of this.

During one visit to Rohrau [J.M. Franck] (related to F.J. Haydn through marriage) was treated to the customary homely singing by the Haydn family and noticed that Joseph was rhythmically accompanying himself on an imaginary violin, using a piece of wood as a bow...The general alertness and musicality of the five-year-old impressed Franck who suggested that he should be educated at his school in Hainburg.<sup>13</sup>

While in Hainburg, he studied general music, learned to play multiple instruments, and sang with the choir. In 1740, he left for Vienna following an invitation to become the chorister at the city's most important church. He performed frequently at the school there, but failed to learn much music theory. Nine years later, he was removed from the school and left to fend for himself. At that time, he began studying musical works, specifically those of C.P.E. Bach, J.S. Bach's son.<sup>14</sup>

Haydn first worked for Nicola Porpora as an accompanist, then for Karl Joseph von Fürnberg as a chamber musician, and it was here that he began writing his first string quartet music. In 1758, he began work as director of music and chamber composer with Maximilian von Morzin. It was at this time that he wrote his first symphony. In 1761, Haydn was appointed Assistant Conductor of the court of Prince Pal Antal Esterhazy. He was director of music personnel, coached the singers, conducted the orchestra, and composed most of the music for the court. Under Miklas Esterhazy, Pal Antal's brother,

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<sup>13</sup> David Wyn Jones, *The life of Haydn*, (New York: Cambridge University Press, 2009), 4-5.

<sup>14</sup> Karl Gelringer, Raymond L. Knapp, and H.C. Robbins Landon, "Joseph Haydn," Encyclopædia Britannica, accessed April 1, 2017, <https://www.britannica.com/biography/Joseph-Haydn>.

Haydn became the music director of the court in 1766, and he worked there for the majority of the rest of his life, composing symphonies, operas, string quartets, and other chamber music.<sup>15</sup>

Haydn's *Cello Concerto in C* was written for Joseph Weigl, principal cellist at the Esterhazy Court and Haydn's friend. During the classical period, concerto form was developed, leading the concerto to become what we know it as today, a multi-movement work that features a virtuosic solo line throughout.

In the baroque era, concerto movements were written in ritornello form, "in which passages performed by the full orchestra, each termed a 'ritornello' (little return), alternate with passages played by the solo instrument."<sup>16</sup> The primary function of ritornello sections is for the orchestra to introduce/play the theme in the tonic and various related key areas depending on the section of the movement. Then, the movement would end in a closing ritornello, which would tie all of the thematic material together.<sup>17</sup> In the classical era, ritornello form evolved to concerto form, through functions of the classical sonata form. The Haydn *Cello Concerto in C* is in concerto form, while the first movement leans toward the baroque ritornello form. The layout of the first movement is in the table below.

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<sup>15</sup> "Joseph Haydn."

<sup>16</sup> William E. Caplin, *Classical form: A Theory of Formal Functions for the Instrumental Music of Haydn, Mozart, and Beethoven* (Oxford: Oxford University Press, 2001), 243.

<sup>17</sup> Ibid.

**Table I:** Tonal Design of Haydn, First Movement<sup>18</sup>

Ritornello 1:	I
Solo 1:	I → V
Ritornello 2:	V
Solo 2:	V → vi
Ritornello 3 [Solo 2a]:	vi → (V)
Solo 3:	I
Ritornello 4:	I

Most of the piece is centered around C(I) or G(V), with a minor(vi) becoming the key center only briefly at the end of the second solo section and the beginning of the third ritornello section. The piece is orchestrated for strings, two oboes, and two horns, with the winds' primary role being to outline the harmony and fill in on ritornello sections. The table below gives the themes, when they appear, and where they're used throughout the movement.

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<sup>18</sup> Edward Niel Furse, "Perspectives on the Reception of Haydn's Cello Concerto in C, with Particular Reference to Musicological Writings in English on Haydn's Concertos and the Classical Concerto." Master's thesis, University of Birmingham, 2009, accessed March 13, 2017, <http://etheses.bham.ac.uk/516/1/FurseMMus10.pdf>.

**Table II: Themes from Haydn, First Movement<sup>19</sup>**

<b>Ritornello I:</b>	A: 1-5 B: 6-7 C: 8-11 D: 12-15(3)* E: 15(3)-18 F: 19 G: 20-21	<b>Ritornello III:</b>	E: 89-93 Q: 94-95(3) F: 95(3)-96
<b>Solo I:</b>	A: 22-26 C: 27-32(3) H: 32(3)-34(3) I: 34(3)-36(3) E: 36(3)-39 F: 40 G: 41-42(3) J: 42(3)-45 G: 46-47	<b>Solo III:</b>	A: 97-101 C: 102-104 H: 105-106 R: 107-110(3) S: 110(3)-113(3) T: 113(3)-116 E: 117-121(3) F: 121(3)-122(3) G: 122(3)-123(3) J: 123(3)-126 G: 127-128
<b>Ritornello II:</b>	A: 47-48 K: 49-50 L: 51-52 D: 53-55 F: 56 G: 57-58	<b>Ritornello IV:</b>	A: 129→130(3) E: 130(3)→133 F: 134 G: 135→136
<b>Solo II:</b>	A: 59-63 C: 64-67(3) M: 67(3)-71 N: 71(3)-77 E: 77(3)-80 O: 81-83(3) F: 83(3)-84(3) J: 84(3)-88(3) P: 88(3)-89	*(3)-Beat 3	

Multiple themes that are repeated throughout the various solo and ritornello sections, specifically Themes A, C, E, F, G, and J. Theme A is the opening line of the cello part, and can be seen as introductory material throughout the rest of the movement.

This piece was one of the very few classical cello concertos to be created, and because of that, it is the first major solo piece from the classical era that I have played. I found technique to be this piece's greatest challenge. It simultaneously demands grace, clarity, beauty, balance, and restraint, and none of that is musically possible in this concerto

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<sup>19</sup> Ibid.

without strong technical ability. Specifically, this piece features several fast, technically challenging passages that are difficult to keep clean and crisp. Another example of difficulty presents itself in the opening theme, which features a sustained chord followed by a quick, short dotted eighth-sixteenth figure. It is hard to save bow on the chord in order to have enough for the following ascending figure; simultaneously, the notes of the ascending figure cannot be clipped and must be approached with control.

Following the classical period, romantic music took the forefront around 1830 until 1920. Composers moved away from an emphasis on form to an outpour of passion and emotion. This was achieved by heavily featuring musical aspects that were previously viewed as supplemental, such as dynamics, tone color, and time. *The Romantic Generation* offers an incredible statement in this regard.

The composers of the late eighteenth century had already integrated dynamics into composition in a new way: dynamics were no longer used only for simple contrast or for their expressive value...Beethoven carried this even farther: this music uses the dynamics of a theme or motif for large-scale development and transformation. In the decades that followed, what Haydn and Beethoven had done for dynamics was applied to other aspects of musical experience--resonance, pedaling, tone color--by the contemporaries of Schumann and Liszt.<sup>20</sup>

Later, this heightened approach to music by romantic composers is further explained.

From Schumann and Liszt to Mahler and Debussy and to our own decades, however, it is evident that timbre, register, and spacing play a greater and more determining part in the conception of the most interesting and significant works.

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<sup>20</sup> Charles Rosen, *The Romantic Generation* (Cambridge, MA: Harvard Univ. Press, 1995), 38.

The Romantics cannot be said to have enlarged musical experience except insofar as all original composers have done so, but they altered the relationship between the delight in sound and the delight in structure; they gave a new importance to aspects of musical experience considered until then of secondary interest or relegated entirely to the performer. They permanently enlarged the role of sound in the composition of music.<sup>21</sup>

Romantic composers achieved their expressiveness and passion by more fully embracing all aspects of music in the compositional process and by focusing on the overall sound they desired their pieces to produce. Evidence of this can be seen in the composers' use of more descriptive and more detailed dynamic, tempo, articulation, and pedal (in piano music) markings.

Dvořák was one of the most famous late romantic composers. He was known for utilizing folk music in his symphonic themes. Antonín Dvořák lived from 1841-1904, and he was the first Bohemian composer to gain world renown. Because of the early development of his musical gifts, Dvořák went to live with his aunt and uncle in 1853, and he studied harmony, organ, and piano.<sup>22</sup> While there, he wrote his first music, polkas. In 1857, he was accepted into the Institute for Church Music in Prague, and played and taught viola while there to gain some extra money. By 1864, Dvořák had an entire catalogue of music that was yet to be published, including an opera, two symphonies, chamber music, and multiple songs.<sup>23</sup>

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<sup>21</sup> Ibid., 40.

<sup>22</sup> Alec Robertson, *Dvořák*, The Master Musicians Series, (London: Dent, 1964.), 12-13.

<sup>23</sup> David Mathias Lloyd-Jones, "Antonin Dvorak," Encyclopædia Britannica, accessed March 28, 2017, <https://www.britannica.com/biography/Antonin-Dvorak>.

In 1873, Dvořák married one of his former students, Anna Cermakova, a pianist and vocalist. Two years later, he was introduced to Johannes Brahms, after the Austrian government awarded him a state grant. Brahms' friendship with Dvořák was fruitful; he gave him technical advice and even introduced him to a publisher. Dvořák was made an honorary Doctor of Music at the University of Cambridge in 1891, and in 1892, he became the director of the National Conservatory of Music in New York. He returned to Bohemia in 1895, and he lived there for the remainder of his life.<sup>24</sup>

As a representation of the romantic period, I chose to perform Dvořák's *Silent Woods*. *Silent Woods* was originally named "Die Ruhe" (The Silence), and it was the fifth piece in the four-hand piano cycle, *Ze Sumavy* (From the Bohemian Forest). It was composed in 1883, and it was arranged for cello and piano in 1891. Dvořák created this arrangement for a series of farewell concerts prior to leaving for America. The cello and piano arrangement became so popular that, in 1893, Dvořák made an arrangement for cello and orchestra. The name of the piece was changed by the publisher, Fritz Simrock, to *Waldesruhe* (Silent Woods) in 1894.

*Silent Woods* begins with a dreamy, syncopated theme in D-flat major, and halfway through, the piece modulates to C-sharp minor. From here, the tempo slightly increases, and the cello and piano begin a conversational section that builds to the piece's climax on a high C-sharp in the cello line. After the climax of the piece, the key modulates back to D-flat major and restates the theme in *ppp*. The piece comes to a close with a high A-flat followed by a descending D-flat major arpeggio with the rhythmic figure of dotted eighth followed by a sixteenth and another eighth, and the piece ends with a low, sustained D-flat.

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<sup>24</sup> Ibid.

*Silent Woods* is similar to the *Haydn Cello Concerto in C Major* in that it demands grace and beauty, however, this piece is much more challenging musically. Effective execution of dynamics is critical for the successful performance of this piece. Because of this, bow distribution and control are once again vital to perform this music. Characteristics of romantic music can be seen in the detailed dynamic, articulation, and tempo markings, as well as in the wide variance of those aforementioned musical aspects within the piece. Even though *Silent Woods* is a gentle piece, with nearly 10 of the 59 measures marked *ppp*, the cello never stays a single dynamic marking for more than five measures. The cello and piano lines frequently swell up and down in dynamics, as well as tempo, climaxing in measure 39 with a marking of *ff appassionato*, only to fall back down to *pp molto tranquillo* four measures later. Another great example of dynamic swells is measure 22 through beat one of measure 25. Each measure starts at *p*, crescendos to *f* on beat three, and lessens back down to *p* on beat one of the next measure. While this piece was originally written for the piano, the near-vocal timbre and incredible expressiveness of the cello pair well with this piece and its song-like melody (original tempo marking is *Lento e molto cantabile*, slowly and very singing), and this is supported by the fact that the cello and orchestra arrangement is the most popular arrangement of this piece today.



## TINTINNABULI AND JAZZ

Classical music of the 20th century included the rise (and fall) of many prominent musical genres including impressionism, jazz, electronic music, serialism, and minimalism. For my recital, I chose a minimalist piece and a jazz piece to embody 20th century music, as well as to contrast with music of the past.

Minimalism is a musical style that often features consonance, slight variance, and often repetition to create a seamless harmonic or rhythmic progression over time. Influential composers of the minimalist genre include Philip Glass, Terry Riley, Steve Reich, and John Adams.<sup>25</sup> The composer of *Fratres*, my minimalist recital piece, is Arvo Pärt, and while he falls under the broad musical classification of minimalism, his music is more specifically, as he calls it, tintinnabuli.

Arvo Pärt was born in Estonia in 1935 and is still alive as of this project. Pärt began his music career by enrolling in the conservatory in Tallinn, Estonia, in 1958. His piece, *Nekrolog*, which he wrote in 1960, was the first twelve-tone piece by an Estonian composer. Pärt composed his first two symphonies in 1964 and 1966, after graduating from the conservatory in 1963. With *Symphony II*, he used material from other composers to create this piece in a method known as collage. Pärt used this same collage technique when composing his famous *Credo* in 1968. Following its first performance, the piece was censored in the USSR for its use of religious text.<sup>26</sup>

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<sup>25</sup> "Minimalist Music," John Adams Composer, accessed April 1, 2017, <http://johnadamscomposer.com/minimalist-music/>.

<sup>26</sup> Kathleen Kuiper, "Arvo Part," Encyclopædia Britannica, accessed April 1, 2017, <https://www.britannica.com/biography/Arvo-Part>.

Pärt's compositions prior to *Credo* were experimental, exploring twelve-tone serialism, aleatory, atonality, and collage, but following *Credo*, Pärt virtually went into seclusion for eight years. He took this time to immerse himself in music of the past, such as Gregorian chant, medieval music, and music of the Orthodox Church, in order to study and learn from the historical compositional structure and techniques. His only major piece to come from this period was his *Symphony III*. Pärt made his musical reemergence with *Für Alina* in 1976. It was a simplistic piano piece written in a new style that Pärt labeled as "tintinnabuli". This compositional style features the use of "two musical lines, one of which moves in largely stepwise motion and the other which moves through the notes of a principal triad."<sup>27 28</sup>

*Fratres* was composed by Pärt following *Für Alina*, in 1977. This piece was originally orchestrated as three-part music without fixed instrumentation. The violin and piano version was transcribed in 1980, and the cello and piano version was conceived in 1989, although they are almost musically identical. The piece is divided into nine sections (each a rehearsal number), consisting of two sets of a chord progression, each containing single measures of 7/4, 9/4, and 11/4 in succession. The progression is based off of an A minor scale with a lowered 2<sup>nd</sup> and raised 3<sup>rd</sup>. The first chord in the progression is an A major in first inversion, with the A in the upper voice and C-sharp in the bass. Each measure of the progression begins and ends with this sustained tonic chord and is split in two; the outside voices move in parallel motion, descending stepwise

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<sup>27</sup> Andrew Shenton, ed., *The Cambridge Companion to Arvo Pärt* (Cambridge: Cambridge University Press, 2012), 1.

<sup>28</sup> "Arvo Part."

with the exception of an octave jump mid-measure. This progression, while occasionally manipulated in the cello line, is evident in the piano line throughout the piece.

*Fratres* begins with solo cello playing arpeggiated, sixteenth-note sextuplets grouped into units of three, where each unit is one beat. The rapidly ascending and descending runs in A major create a shimmering, wave-like sound effect, immediately evoking a dreamy atmosphere. The second section seems suspended in time. The cello line begins with a sustained, high double-stop of harmonic A and E, and the only movement is heard in the bell-tone chords of the piano. The progression at rehearsal three is flowing, featuring a sixteenth note rhythmic figure in the key of F major. This section is the part of the piece I struggled with most, as it is incredibly hard to connect bow changes and sustain a smooth sound while making awkward shifts that often cover more than an octave.

Rehearsal four contains a constant stream of thirty-second notes in D minor and is easily the most challenging section in terms of bow control and string crossings. While this section can be visually and aurally overwhelming, seemingly the most difficult section in the piece, it is actually one of the easiest for me to play, and once I firmly establish the tempo, it just feels like an energetic fiddle line from a folk tune. The fifth section, also in D minor, is transparent and haunting. It features a triplet figure throughout the progression. The sixth section of *Fratres* is the hardest for me to play in tune. It is in the key of G minor and is comprised entirely of double-stops that are voiced in the upper register of the cello. Rehearsal seven is the closest in relation to the piano part throughout the piece. It consists of bell-like triads or single tones that line up with

the rhythm of the piano and most clearly outline the chord progression of the entire piece. This section is in C major.

The eighth section is back in A major and is filled with cadenza-like, ascending arpeggios. The rhythmic figure in this section shifts, increasing density from eighth note runs to triplets, followed by sixteenths, and then the section decreases in rhythmic intensity from sixteenth notes, to triplets, and finally back to eighths. Rehearsal nine, the final section in the piece, is entirely made up of false harmonics. Because of the two-octave jump in voicing and the naturally thin, but pure sound that harmonics produce, the progression is given a ghostly character that creates a dreamy, ethereal atmosphere to the end of the piece.

*Fratres* also contains nine, two-measure interludes of 6/4 that serve as connecting material. Both measures of every interlude contain a piano down beat and a cello chord on the third beat, followed by a sixteenth note pick-up and low piano tone on the fourth beat. The odd numbered interludes all contain the notes E, G, D, A (E7add4) in the cello and all but the last interlude, which is *col legno*, are *pizzicato*, with the second chord being *piano* and rolled. Interlude three also has the last sixteenth note figure from the third section repeat on beat two of the first measure of the interlude, and interlude nine has the last note of section nine sustain for two beats of the first measure of the interlude. The even numbered interludes are all *pizzicato*, with a rolled second chord, and accented, except for interlude eight, but the notes of the chord change. Interludes two and four contain the G, D, and A harmonics (G2). Interlude six contains the open strings G, D, and A (G2). Interlude eight contains the open strings C, G, and D (C2), and the last two

notes of the last arpeggio in section nine carry over to the first two beats of the interlude, with the high E ringing on beat three and creating a Cadd2 chord.

Much like with *Silent Woods*, the cello fits beautifully with this piece, even though it was not the original instrumentation. This piece utilizes the instrument to its fullest: every dynamic level is present and frequently used, every common rhythmic figure from eighth notes all the way to thirty-second notes (even sixteenth note sextuplets) is used, most common articulations, from slurs and legato strokes to fast, scrubby strokes, are used, the entire range of the cello is used, and many extended techniques are used, including double-stop harmonics, *col legno*, and false harmonics. The warm, rich sound, as well as the incredible versatility in timbre and sonic potential of the cello pairs well with the varied presentation of the progression in *Fratres*.

Prior to the development of the minimalist genre, jazz music had been around for years. Although jazz was developed in the early 20<sup>th</sup> century, the cello wasn't really utilized for jazz until the 1950s. Fred Katz, known as the first real jazz cellist, introduced the cello to jazz as a member of jazz drummer Chico Hamilton's quintet in the '50s. He wrote for and appeared on several albums with the quintet before recording several solo albums as well. Katz was a classically trained prodigy and studied under Pablo Casals, and he was a member of the National Symphony Orchestra. Katz is also famous for writing the score for Roger Corman's film, *A Bucket of Blood*, which was used and/or rearranged for many of Corman's other movies including *The Little Shop of Horrors*, which was eventually adapted into the successful, Off Broadway musical. Jazz bassist, Ray Brown, released his *Jazz Cello* album in 1960 that featured a jazz *pizzicato* cello lead on all of the tracks. While he was a bassist for big names like Oscar Peterson and Ella

Fitzgerald, this album gave a nod to the cello's adaptability and potential in jazz. Other notable jazz cellists include Fred Longberg-Holm, Erik Friedlander, Stephan Braun, and Lucio Amanti.<sup>29</sup>

For my recital, I chose to perform the "Sarabande: Portrait of Resi" and "Groove I/II" of Amanti's *Jazz Suite for Violoncello Solo*. Lucio Amanti is an Italian cellist and composer that was born in 1977. He studied with Janos Starker and David Baker at Indiana University, earning a Master's degree in both Classical Cello and Jazz Studies. Amanti has written a number of pieces, including the *Jazz Suite*, *Jazz Sonata*, and *20 Etudes*, in an attempt to merge the classical tradition of cello with jazz.

I chose the *Jazz Suite for Violoncello Solo* because of jazz's influence on music and to directly contrast with Bach's solo cello music of the baroque era. Amanti's version of a sarabande is generally similar in style to that of Bach's in Suite III in that it is slow, peaceful, and contemplative; however, Amanti uses jazz chords and extended techniques, including frequent use of harmonics as well as double-stops with a harmonic and a different note, throughout. Amanti's form is also different; rather than an AABB form, Amanti uses an ABCA' form, ending on an A5add#4 with a fermata. The "Groove I/II" could be comparable to Bach's gavottes/bourrées/minuets in that the first dance is in a different style than the second, and the conclusion of the second dance leads back into the beginning of the first. Groove I primarily uses a repeated, two-measure groove that ends with 8 sixteenth notes grouped in 3-3-2, giving common time signature an awkward little twist and slightly confusing the listener as to the meter. The second half of it

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<sup>29</sup> Margalit Fox, "Fred Katz, Who Married Cello to Jazz, Dies at 94," The New York Times, accessed April 1, 2017, <http://www.nytimes.com/2013/09/13/arts/music/fred-katz-who-married-cello-to-jazz-dies-at-94.html>.

contains frequent glissandos following a cadenza-like, whole tone run in measure 19 that ends in a glissando, and the section ends with a dynamic fade to *niente*. Groove II is in 5/8 and is almost entirely played on two or more strings simultaneously. Following the use of 4/4 in the previous section, Groove II constantly feels metrically unsettling, although Amanti adds some stability by using the grouping of 3-2 throughout. The section ends with a bar of 5/8 in the feel of the first section, with ten sixteenths grouped in 3-3-2-2, and this leads directly into the intro of Groove I.

This piece does an incredible job of exploring the extended techniques of the cello through the use of jazz harmonies in an accessible way. There are sevenths and other less-than-pleasant dissonances that are primarily utilized in a warm way in order to expose the listeners simultaneously to extended harmonies and the broad sonic possibilities of the cello. Specifically, Amanti primarily uses sevenths and ninths when writing harmonics in the sarabande. Because the harmonics are higher in pitch than regular tones, those intervals don't strike the listener as dissonant. In Groove I, Amanti breaks the C minor groove with a C whole-tone scale, but he releases tension created from the chromatic tones of the scale by adding a glissando back down to the familiar groove.

## MY ARRANGEMENTS

Today, cello is being utilized in almost every genre of music, including jazz, rap, rock, pop, psychedelia, indie, folk, and bluegrass music. Major modern cellists include Yo-Yo Ma (classical), the members of Apocalyptica (metal), 2CELLOS (classical/pop/rock), Kevin Olusola (pop/R&B), Stephan Braun (jazz), Zoë Keating (electronic), and Ben Sollee (indie folk/bluegrass). The cello's widespread popularity can be attributed to its versatility, warm sound, and timbre that closely resembles the human voice.

My arrangements that I performed for my Senior Recital include "Come Together" by The Beatles and "Gold" by Penny & Sparrow. I arranged "Come Together" for two cellos and two voices, specifically with Shelly Burgess (my partner in our freelance cello duo, SoKY Cellos) on melody vocals and myself on harmony vocals.

The Beatles were the first popular music group to integrate cello into their sound. Throughout *Revolver*, *Sgt. Pepper*, and *Magical Mystery Tour*, strings were heavily featured in their experimentation with psychedelia, and the cello was often given solos, specifically on songs like "Eleanor Rigby", "Within You/Without You", "Flying", "Blue Jay Way", and "Strawberry Fields Forever." Although, "Come Together" is a full-band song that doesn't feature cello, the simplicity of the song, as well as its earthy sound, lend itself to a cello arrangement. To keep "Come Together" as recognizable as possible, I didn't alter the key of the song (D minor). I also did not alter the vocal melody or frequency of vocal harmony, and, for the most part, I kept the basic chord structure of the song the same. I did spice up a few chords here and there by extending them. First, when the introduction riff shifts from a low D to the sustained F, I added a double-stop E and C



above the F to imply an FM7 chord, instead of a plain F major chord. Next, when the end of the pre-chorus typically sits on the G chord, I change it to a double-stop F and G in order to create a G7 chord. Last, during the chorus, I play a repeated D and A double-stop that only resolves down to C# and A on the last chorus chord. This turns the typical chorus chords of bm, A, G, and A into bm7, Asus4, G2, and A. These chord extensions don't change the song or how it's perceived for most people, but the changes do sneak in a bit of tasteful dissonance.

Shelly plays the equivalent of the rhythm guitar part (except for the opening riff and the solo, which she plays bass for), and I simultaneously play the bass and percussion parts by utilizing a bluegrass fiddle method called "chopping". Chopping can be defined as vertically striking the bow hair nearest the frog against the string to make an unpitched percussive sound. By alternating chopping and playing pitched notes, I was able to cover both the bass and percussion parts for the arrangement. I originally arranged "Come Together" for a masterclass with Ben Sollee, prior to the concert he played in Van Meter Auditorium in October 2016. The reason I incorporated chopping into this song is because Sollee uses chopping throughout his music. I learned the technique by listening to his songs and watching him play. Sollee's genuine approach to music and ability to blend genres has inspired me to explore my own style of performance.

For the last piece in my recital, I really wanted to perform a song on electric cello. Many people don't even know the electric cello exists, much less what it looks or sounds like. The incredible thing about the electric cello is that it sounds nearly identical to an acoustic cello, but it can be amplified and has all of the sonic possibilities of an electric guitar.

In “Gold”, I used a loop pedal to recreate all of the sounds heard in the original song. Looping is the process of recording a phrase of music and repeating it while simultaneously playing live. The loop pedal I have allows me to create three separate loops, and in “Gold”, I used one loop for the verses, one for the choruses, and one for the bridge. I began my performance by looping a percussive beat, for both the verse and chorus loops, that I created using the chopping method described above. Next, I stacked in the bass and chordal accompaniment, primarily what the guitar would play, for the verse and chorus loops. Finally, I “started” the song by layering in the vocal melody to the verse and chorus loops for verse 1 and chorus 1. For verse 2 and chorus 2, I stacked in the vocal harmony to the verse and chorus loops. The bridge in “Gold” is perfect for looping because it’s instrumental, and it slowly builds over time, adding part by part. After chorus 2 finished, I started the bridge loop and layered in four harmonies, and after the fourth time through the loop, I replayed the chorus loop for chorus 3. I ended the song by replaying the verse loop for verse 3 and fading out before its completion. My reasoning for delaying the start of the vocal melody (the recognizable part of the song) was that, once I began playing the melody, my performance progressed at exactly the same pace and structure of the original song.

## SUMMARY

Study and performance of these pieces has allowed me to grow incredibly both as a cellist and as a musician in general. Each piece offered its own performance challenges, and I've had to approach each piece with a different mindset and with a different technical emphasis. One of the ways I've grown most as a musician is through a realization of the importance of music theory. Music Theory is basically a set of rules that binds the compositional process. Breaking these rules results in interesting musical shifts, but removing them altogether blurs the distinction between music and noise. Theory is also interesting in that a piece can be theoretically complex while sounding simple, and vice versa. For instance, *Fratres* is twelve minutes of music consisting of the same three measure chord progression, but it's aurally busy and presents numerous technical challenges throughout. Bach's sarabande from Suite III, on the other hand, is less than three minutes of peaceful, relaxing music, but the chord changes nearly every beat, with hidden cadences to delay the feeling of arrival.

I also learned a few specific things from each piece. From Bach, I learned to appreciate each and every note, because the cello line is melody, harmony, and bass combined. From Haydn, I found bow control is essential to create an even, clean sound. Similarly, I learned from *Silent Woods* that bow distribution and usage are essential to dynamic expressiveness. *Fratres* really taught me to appreciate the full range of the cello, and that you can create quality music from just one chord progression. Amanti's *Jazz Suite* presented the simultaneous importance of freedom and conviction. The music is open to interpretation, but if I don't believe the way I'm playing it, it loses maturity. By arranging "Come Together", I exercised the usefulness of the "chop", and I also learned when it was

musically appropriate to expand chords for complexity/added dissonance. Another note from arranging the song for cellos and vocals is that the cello parts need to be either lower in volume or more sparsely orchestrated beneath vocal lines for clarity. While arranging “Gold”, I learned to recognize the importance of song structure. In order to live loop the song, I had to break it down and learn each part, and then I had to plan a way to put it all back together in an efficient manner that is musical and coherent to the listener.

I have grown a lot over the last four years in the music college here at WKU. I have played hundreds of pieces: whether on campus with the Symphony, Theatre Dept., or various chamber groups, or out in the community for different church services, weddings, or special events. With that being said, I can safely say that learning and studying these pieces in preparation for this recital has been an incredibly enriching experience for me, and has definitely been one of the highest points of my college career. It was an honor and a joy to perform a full recital of historical cello pieces and music that has influenced me as my last performance as an undergraduate student.

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