

## ABSTRACT

Title of Dissertation: WHAT'S THE MATTER WITH EXTENDED  
TECHNIQUES? GETTING BEYOND THE STIGMA IN  
THE HORN AND PERCUSSION REPERTOIRE.

Lauren Avery Pettigrew, Doctor of Musical Arts, 2016

Dissertation directed by: Professor Gregory Miller  
School of Music

For this project I prepared a series of recitals featuring music for horn and percussion, in which the horn part featured extended horn techniques. For this project, I considered anything beyond the open or muted horn an extended technique. These techniques range from the common hand-stopped note passages to complex new techniques involving half-valves, multi-phonics, and more, for new sounds desired by the composer. There are several pieces written for solo horn and percussion, with ensembles ranging from simple duets to solo horn with a full percussion ensemble. However, few include extended techniques for the horn. All of these select pieces are lesser known because of their difficulty, primarily because of the challenge of the extended techniques requested by the composer.

In the introduction to this paper I give a brief background to the project, where the current repertoire stands, and my experiences with commissioning works for this genre. I

then give a brief history and how-to on the more common extended techniques, which were found in almost every piece. I separated these techniques so that they could be referenced in the performance notes without being extremely repetitive in their description. Then follows the main performance notes of the repertoire chosen, which includes a brief description of the piece itself and a longer discussion for performers and composers who wish to learn more about these techniques. In this section my primary focus is the extended techniques used and I provide score samples with permission to further the education of the next musicians to tackle this genre. All works performed for this project were recorded and accompany this paper in the Digital Repository at the University of Maryland (DRUM).

The following works were included in this project:

- Howard J. Buss, *Dreams from the Shadows* (2015)
- Howard J. Buss, *Night Tide* (1995)
- George Crumb, *An Idyll for the Misbegotten*, trans. Robert Patterson (1986/1997)
- Charles Fernandez, *Metamorphosis: A Horn's Life*, "Prenatal and Toddler" (2016, unfinished)
- Helen Gifford, *Of Old Angkor* (1995)
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- Faye-Ellen Silverman, *Protected Sleep* (2007)
- Charles Taylor, *Sonata for Horn and Marimba* (1991)
- Robert Wolk, *Tessellations* (2016)

With this project, I intend to promote these pieces and the techniques used to encourage more works written in this style, and reveal to fellow horn players that the techniques should not prevent these great works from being performed. Due to the lack of repertoire, I successfully commissioned new pieces featuring extended techniques, which were featured in the final recital.

WHAT'S THE MATTER WITH EXTENDED TECHNIQUES? GETTING BEYOND  
THE STIGMA IN THE HORN AND PERCUSSION REPERTOIRE

By

Lauren Avery Pettigrew

Dissertation submitted to the Faculty of the Graduate School of the  
University of Maryland, College Park in partial fulfillment  
Of the requirements for the degree of  
Doctorate of Musical Arts  
2016

Advisory Committee:

Professor Gregory Miller, Chair  
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## **Preface**

For this project I prepared a series of recitals featuring music for horn and percussion, in which the horn part featured extended horn techniques. For this project, I considered anything beyond the open or muted horn an extended technique. These techniques range from the common hand-stopped note passages to complex new techniques involving half-valves, multi-phonics, and more, for new sounds desired by the composer. There are several pieces written for solo horn and percussion, with ensembles ranging from simple duets to solo horn with a full percussion ensemble. However, few include extended techniques for the horn. All of these select pieces are lesser known because of their difficulty, primarily because of the challenge of the extended techniques requested by the composer.

In the introduction to this paper I give a brief background to the project, where the current repertoire stands, and my experiences with commissioning works for this genre. I then give a brief history and how-to on the more common extended techniques, which were found in almost every piece. I separated these techniques so that they could be referenced in the performance notes without being extremely repetitive in their description. Then follows the main performance notes of the repertoire chosen, which includes a brief description of the piece itself and a longer discussion for performers and composers who wish to learn more about these techniques. In this section my primary focus is the extended techniques used and I provide score samples with permission to further the education of the next musicians to tackle this genre. All works performed for

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With this project, I intend to promote these pieces and the techniques used to encourage more works written in this style, and reveal to fellow horn players that the techniques should not prevent these great works from being performed. Due to the lack of

repertoire, I successfully commissioned new pieces featuring extended techniques, which were featured in the final recital.

## **Dedication**

For my wonderful family: Cindy and Andy Pettigrew, and George and Lindsay Zenelis.

## **Acknowledgments**

I want to sincerely thank all of the wonderful and talented percussionists who joined me for this project. In particular I want to thank my colleague Robert Schroyer, who joined me on every recital in this project. In addition to the invaluable help from my teachers, Gregory Miller and Phil Munds, I would also like to thank Prof. Lee Hinkle for his guidance on this project as well.

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## Recital Dates and Repertoire

Below is how my recitals were structured. I discuss each of these pieces alphabetically by composer in Chapter 3, instead of by recital. This repertoire is fully cited in the score bibliography. All three recitals were performed in Gildenhorn Recital Hall at the University of Maryland and were recorded by Opusrite™.

### Recital No. 1: The Foundation

5pm November 15<sup>th</sup> 2015

Mark Schultz, *Dragons in the Sky* (1989)

Verne Reynolds, *HornVibes* (1986)

Douglas Hill, *Thoughtful Wanderings...* (1990)

George Crumb, *An Idyll for the Misbegotten*, trans. Robert Patterson (1986/1997)

### Recital No. 2: Driftwood Alloy

5pm February 13, 2016

Howard J. Buss, *Night Tide* (1995)

Faye-Ellen Silverman, *Protected Sleep* (2007)

Howard J. Buss, *Dreams from the Shadows* (2015)

Helen Gifford, *Of Old Angkor* (1995)

Charles Taylor, *Sonata for Horn and Marimba* (1991)

**Recital No. 3: Progression**

8pm April 9, 2016

Brian Prechtel, *A Song of David* (1995)

Pierre-Yves Level, *Duetto pour Cor en Fa et Percussion* (1999)

Pablo Salazar, *Cincontar* (2016)

Robert Wolk, *Tessellations* (2016)

David Macbride, *Elegy for Horn and Timpani* (2009)

Charles Fernandez, *Metamorphosis: A Horn's Life*, "Prenatal and Toddler" (2016,  
unfinished)

## Chapter I. Introduction

### Background

The repertoire for solo horn is small in comparison to that of the piano or violin, and in this genre there exist but a few that involve extended techniques, or sounds beyond the open and straight muted horn. Prior to the invention of the valved horn in the 1820s, the natural horn was played with hand horn technique, in which the performer used various hand positions in the bell to change the notes.<sup>1</sup> These hand positions changed the timbre of the horn sound in very distinctive ways, which remained in the repertoire for the modern valved horn as stopped horn (fully blocking the sound with the hand) and echo horn (only partially blocking the sound).<sup>2</sup> This hand horn technique evolved into a major extended technique, which will be explained more in Chapter 2. The horn concertos by Wolfgang Amadeus Mozart and Franz Joseph Haydn were written for hand horn players.<sup>3</sup>

Carl Maria von Weber's Concertino, Op. 45, written in 1815, is perhaps the earliest example of multi-phonics, a less common extended technique in which the horn player plays a single note while simultaneously humming another note, ultimately producing the overtones of a chord.<sup>4</sup> Despite the less common appearance of multi-phonics in the classical horn literature, it is another major technique that will be discussed more in Chapter 2. Camille Saint-Saens used stopped horn techniques in his *Marceau du*

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<sup>1</sup> Tuckwell, 31.

<sup>2</sup> Ibid, 99.

<sup>3</sup> Ibid, 31-32.

<sup>4</sup> Morley-Pegge, 147.

*Concert*, Op 94 (1893),<sup>5</sup> which became the more popular extended technique due to stopped horn's common occurrence in orchestral repertoire by this time. Stopped horn was common in the late 1800's because the natural horn and newer valved horn were both developing musically simultaneously, particularly in the Paris Conservatory.<sup>6</sup> These featured extended techniques culminated in the horn concertos of John Williams (2003)<sup>7</sup> and David Amram (1967)<sup>8</sup>, which incorporated stopped horn passages and multi-phonics.

The most commonly performed works featuring extended techniques are the solo horn pieces of Sir Malcolm Arnold *Fantasy*, Op 88 (1966)<sup>9</sup> and Vitaly Buyanovsky's (1928-1993) "España" from *Four Improvisations from Traveling Impressions*. These pieces only involve a few extra techniques; mostly the stopped horn in the Arnold and note bends and stopped horn in "España."<sup>10</sup> There are several pieces for horn and piano that involve extended techniques, including Paul Dukas *Villanelle* (1896)<sup>11</sup> and Dana Wilson's *Musings* (2003),<sup>12</sup> among others. The most commonly performed horn and piano pieces to feature echo and stopped horn passages are Eugene Bozza's *En Forêt* (1941) and *Sur les Cimes* (1960).<sup>13</sup>

Works specifically for percussion are among the newest genre within contemporary classical music.<sup>14</sup> Some consider the first significant piece ever written for a solo percussion player in the western classical music genre to be Karl Stockhausen's

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<sup>5</sup> Hill *Collected Thoughts*, 133.

<sup>6</sup> Tuckwell, 99.

<sup>7</sup> Williams, II: "Battle of the Trees," IV: "The Hunt" cadenza.

<sup>8</sup> Amram, cadenza.

<sup>9</sup> Arnold, *Fantasy*, Rehearsal F.

<sup>10</sup> Buyanovsky, III "España."

<sup>11</sup> Dukas, echo horn section before Rehearsal D.

<sup>12</sup> Wilson, "Calliope," "Polyhymnia," "Thalia," "Erato," "Clio," "Urania," "Terpsichore."

<sup>13</sup> Hill *Collected Thoughts*, 135.

<sup>14</sup> Aguilar, 6.

*Zyklos* (1959).<sup>15</sup> Works for horn and percussion, particularly mallet percussion, are gaining popularity among composers from the potential sounds of keyboard percussion, which can be seen in the many number of works written for this ensemble discussed below. Those with extended techniques for the horn are not as numerous, revealing the reluctance of using extended techniques in this genre.

### **Current Repertoire for Horn and Percussion**

The most popular pieces for horn and percussion in general include *Thoughtful Wanderings* by Douglas Hill, *Dragons in the Sky* by Mark Schultz, *An Idyll for the Misbegotten* by George Crumb (arranged for horn by Robert Patterson), and *HornVibes* by Verne Reynolds, all of which happen to involve extended horn techniques, as seen by their inclusion in this project. These are actually the only pieces listed in the works for horn and percussion section in Douglas Hill's book *Collected Thoughts on Teaching and Learning*...<sup>16</sup> In my preparation and research for pieces for this project I found a significant amount of repertoire for horn and percussion. The most common combinations I found were horn and mallet percussion, probably because of the growing popularity of mallet percussion as solo instruments as discussed above. Most of the repertoire was written fairly recently, and still the majority of the pieces did not contain extended techniques in the horn part. There was, however, enough repertoire that I could narrow the range even further in my repertoire choices. The most common extended technique I considered qualifying was the use of hand-horn technique, most commonly

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<sup>15</sup> Aguilar, 4-5.

<sup>16</sup> Hill *Collected Thoughts*, 148.



stopped horn. From the repertoire that had any stopped notes, I chose the pieces that either had additional techniques or had longer passages of stopped note usage.

Below in Table 1 is a chart I compiled of some of the music I discovered and considered for this project. I left out publication details here for the sake of easy reference. These pieces are listed fully in the score bibliography. In the chart, when “percussion” is listed, this means mixed percussion instruments were called for. In most cases, at least one of the instruments is a mallet percussion instrument.

**Table 1: Potential music discovered for this project, showing the diversity of instrumentation and whether or not the horn parts contained extended techniques.**

Last name	First Name	Title	Ensemble	Techniques?	Perform?
Agrell	Jeffery	<i>Night Sonata</i>	Bass, piano, percussion	Stopped, gliss	
Agrell	Jeffrey	<i>New Wine in Old Bottles</i>	2 Natural horns, percussion	Natural	
Badian	Maya	Chamber Concerto	Percussion	Yes	
Benson	Warren	<i>Thorgard's Song</i>	4 percussion	Echo	
Bodine	Bradley	<i>Rhapsody</i>	Percussion	No	
<b>Buss</b>	<b>Howard</b>	<b><i>Dreams from the Shadows</i></b>	<b>Vibes</b>	<b>Yes</b>	<b>13-Feb</b>
<b>Buss</b>	<b>Howard</b>	<b><i>Night Tide</i></b>	<b>Marimba</b>	<b>Yes</b>	<b>13-Feb</b>
Buss	Howard	<i>Reflective Journey</i>	Percussion 4tet	Trills, stopped	
<b>Crumb</b>	<b>George</b>	<b><i>Idyll for the Misbegotten</i></b>	<b>3 percussion</b>	<b>Yes</b>	<b>15-Nov</b>
Davis	Elizabeth	<i>Duologue</i>	Marimba	No	
Feldman	Morton	<i>De Kooning</i>	Percussion, piano, vln, cello	No	
<b>Gifford</b>	<b>Helen</b>	<b><i>Of Old Angkor</i></b>	<b>Marimba, I play perc!</b>	<b>Yes</b>	<b>13-Feb</b>
Giner	Bruno	<i>Cor a corps</i>	Percussion	No	
Glasscock	Lynn	<i>Shared Spaces</i>	Extra horn, 2 percussion	Yes	
<b>Hill</b>	<b>Douglas</b>	<b><i>Thoughtful Wanderings</i></b>	<b>Percussion</b>	<b>Natural</b>	<b>15-Nov</b>
Houliff	Murray	<i>Horn-Rims</i>	2 percussion	Yes	
Huebner	Gregor	<i>Latin Suite</i>	Marimba, string 4tet	Yes	
Joest	Kevin	<i>Hornaningo</i>	Marimba & percussion	Growl	
Jones	Stuart	<i>Variations</i>	Percussion	No	
Leonard	Stanley	<i>Duetto Concertino</i>	Timpani	Trills	
<b>Level</b>	<b>Pierre-Yves</b>	<b><i>Duetto</i></b>	<b>Percussion</b>	<b>Yes</b>	<b>9-Apr</b>
<b>Macbride</b>	<b>David</b>	<b><i>Elegy</i></b>	<b>Timpani</b>	<b>Yes</b>	<b>9-Apr</b>
McCarthy	Daniel	<i>Call of Boromir</i>	Marimba	No	
Miki	Minoru	<i>Yoshitsune Daiko</i>	Percussion 4tet	No	
Parotti	Sergio	Concierto No. 2 Op.302	Percussion	No	
<b>Precht</b>	<b>Brian</b>	<b><i>A Song of David</i></b>	<b>Percussion</b>	<b>Yes</b>	<b>9-Apr</b>
<b>Reynolds</b>	<b>Verne</b>	<b><i>HornVibes</i></b>	<b>Vibes</b>	<b>Yes</b>	<b>15-Nov</b>
Salminen	Susan	<i>Fanfare</i>	Timpani	No	
<b>Schultz</b>	<b>Mark</b>	<b><i>Dragons in the Sky</i></b>	<b>Percussion</b>	<b>Yes</b>	<b>15-Nov</b>
<b>Sliverman</b>	<b>Faye-Ellen</b>	<b><i>Protected Sleep</i></b>	<b>Marimba</b>	<b>Yes</b>	<b>13-Feb</b>
<b>Taylor</b>	<b>Charles</b>	<b><i>Sonata</i></b>	<b>Marimba</b>	<b>Yes</b>	<b>13-Feb</b>
Zolnowski	Robert	<i>Prior Ascension</i>	Multi percussion	No	

When choosing pieces from the current repertoire to perform I chose to perform pieces with only horn and percussion, and within that, only three percussion players maximum. I decided larger ensembles would not be feasible in the small performance space and so they were not considered for this project. I also decided to only use the solo horn pieces instead of any of the handful of horn duets because this project is focusing on the solo horn, not the solo horns. From this research I decided straight mute usage was not an extended technique because it is historically older than even hand horn usage, as will be discussed below in Chapter 2, and straight mute usage is extremely common in all repertoire.

### **What the Future Holds for this Genre**

My intent in performing these works and soliciting new works is to promote an awareness of this genre and rid the stigma, both for performers and composers, and to further expand the sound potential of the French horn. I emailed composers a request detailing the project and with a list of techniques seen in Table 2.

**Table 2: Chart of techniques emailed to composers to give a brief overview of the techniques I considered extended. In the original chart I also included scores to reference, all of which are used in this project or discussed in this paper.**

<b>Technique</b>	<b>Variations:</b>	<b>Effect</b>	<b>Potential range</b>	<b>Comfortable range</b>	<b>Mute?</b>
Flutter-tongue	Open	Growl	Full	Horn bass clef lower F to above treble C	Can be used
	Stopped	Nasally-growl	Full	Horn bass clef lower F to above treble C	Hand required
Glissandi	Half-valved	Muffled smooth with some notes caught	Full	Full	Can be used
	Lip	Catch harmonics	Full	Best with more harmonics so upper range	Can be used
	Smooth	Like a string player	Upper range	Upper range (below treble and above)	Cloth mute required
	Valved	Catch notes	Full	Full	Can be used
Half-valve	Solid tone	Muffled whale song	Full	Full	Can be used
	Vibrato or trill	Wiggly whale song	Full	Full	Can be used
Hand-horn	Echo	Soft nasally	Full	Full (is in- between of regular mute and stopped)	Hand
	Glissandi	Bends	Full	Full	Hand
	Stopped	Nasally- various dynamics	Full	Horn bass clef lower F to above treble C	Hand
Multi-phonics	Play lower sing higher only	Multiple notes- chords	Voice sounding bass clef Eb to treble G above staff	Voice bass clef F to treble top F	Can be used
Open slides/ venting/ whisper tones	Any slide	Funny toot, different notes with fingerings	Full	Full	N/A-sound is not out the bell
Stopped-mute flutter	Different stopped mutes	Tremolo	Full	Full	Stopped mute required
Trills	Lip	Open harmonics only	Mid-upper depending on interval	Upper range (below treble and above)	Can be used
	Valve	Half-step or more	Full	Full	Can be used

When writing to composers I found more interest than lack of interest in writing works for extended horn techniques. I was only truly turned away from one of the six composers contacted for the use of extended techniques. Another two composers turned me away because of the short turnaround time I required between contacting them and when I would need a rough draft of the score but they both enjoyed the prospect. One of the composers who did write a piece for me may have had a piece already in the works for a different ensemble and therefore arranged his initial piece into a horn and percussion quartet which will be discussed below. Another composer was currently working on a piece exactly in this genre for trumpet extended techniques and we collaborated on an arrangement for horn and percussion. The third composer's piece is entirely new and originally for horn and percussion. From this experience I believe it may not be the composers who limit the use of extended techniques, but those horn players whom they are consulting.

When discussing my topic with fellow horn players across many levels of experience the general response was encouragement, and they congratulated me for having the initiative to work in this genre. Many expressed curiosity in the techniques but confessed to not feeling skilled enough to perform these themselves or expressed a lack of enjoyment in the techniques or the modern music these techniques generally appear in. While I cannot easily change aural preferences, with this project I would like to promote these techniques in the general horn education. I believe many musicians do not like extended techniques because they are uncomfortable with the sound of them and find them “non-musical.”<sup>17</sup> I would argue that hand-horn technique is fundamental to the

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<sup>17</sup> Tuckwell, 118.

education of every serious horn student. I also believe that learning how to perform and tune multi-phonics is an incredibly rewarding challenge and also helps students develop a keener ear. With my discussion below I would like to make it easier for a horn colleague to pick up these pieces, and those like them, and perform the techniques with courage and enthusiasm.

## Chapter 2. The Major Techniques:

### Hand-Horn Technique

To begin a discussion of hand horn technique, we first need a brief history of the modern French horn. As a signaling device, the “horn” is among the oldest wind instruments.<sup>18</sup> These original signaling horns were made from animal horns or conch shells, or any conical shaped tube by which a player could amplify the buzzing of their lips.<sup>19</sup> Among the earliest man-made horns were the Scandinavian *lur*, Etruscan *cornu*, Celtic *carnyx*, and the Roman *lituus* and *bucina*.<sup>20</sup> The harmonic series is the sequence of tones above the fundamental pitch of the tube available to the musician.<sup>21</sup> Early horn pitches were restricted to the notes of the harmonic series, but it was probably discovered early on that the longer the instrument, the more notes were physically possible. This is because the length of the horn lowers the fundamental pitch of the tube, and therefore higher harmonics in the series are more easily performed.<sup>22</sup> In a discussion that could create a significant other paper, these instruments were developed for the mounted hunt.<sup>23</sup>

The direct ancestor of the horn, the European hunting horn, gained popularity during the Renaissance with the rise of the hunt as a high form of courtly entertainment.<sup>24</sup> The original hunting horn resembled an animal horn made of metal, but the developers discovered they could make the tube significantly longer than any natural animal horn.<sup>25</sup> Because the length of the tubing would be extremely difficult to carry on horseback,

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<sup>18</sup> Tuckwell, 1.

<sup>19</sup> Janetzky and Bröchle, 57.

<sup>20</sup> Janetzky and Bröchle, 14-15; Tuckwell, 3-7.

<sup>21</sup> Bartholomew, 7-9.

<sup>22</sup> Fitzpatrick *Bohemian Tradition*, 5.

<sup>23</sup> Tuckwell, 8.

<sup>24</sup> Fitzpatrick, *Bohemian Tradition*, 13 and 18.

<sup>25</sup> Tuckwell, 14.

makers found that they could instead coil the instrument around itself, leading to the stereotypical circular shape of the instrument.<sup>26</sup>

Overtime, the horn became a common indoor musical instrument.<sup>27</sup> A discussion of the horn's movement from the outdoor mounted hunt to indoor orchestral playing is also a lengthy discussion,<sup>28</sup> which could create a significant other paper. Despite great developments in the horn's design, the horn remained limited to the 16 or so harmonics of the harmonic series or neighboring notes which the players could bend to with their embouchures alone. A technique that arose from this time period or even earlier is the lip trill, or a quick alternation between two neighboring notes in the harmonic series using only the lips.<sup>29</sup> This technique is still in use to this day and is found in several pieces used in this project. Lip trills are generally used in the upper part of the harmonic series where partials are whole steps apart.<sup>30</sup>

Lip trills are written either with the word "trill" and a jagged horizontal line over the sustained note or some abbreviation or translation of the word trill. Some composers may put the two trill notes together, and if the interval sits in the harmonic series the trill is performed as a lip trill. Valve trills are discussed below. There are many exercises to learn lip trills, my exercises of choice are found in both Philip Farkas's *The Art of French Horn Playing* (1956)<sup>31</sup> and Douglas Hill's *Collected Thoughts...*(2001).<sup>32</sup>

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<sup>26</sup> Tuckwell, 10.

<sup>27</sup> Ibid, 17.

<sup>28</sup> Ibid.

<sup>29</sup> Hill *Extended Techniques*, 36.

<sup>30</sup> Gregory, 138.

<sup>31</sup> Farkas, 75-78.

<sup>32</sup> Hill *Collected Thoughts*, 21-23.



Around 1750 a horn player named Anton Hampel was experimenting with a mute for the horn so that it would not be quite so loud in these indoor settings.<sup>33</sup> In the process, he discovered that when something was inserted into the bell of the horn, the pitch would change by varying degrees based upon the amount of insertion.<sup>34</sup> He found that the hand produced the same effect as the cotton pad-mute he was experimenting with and is therefore credited as the main developer and promoter of hand-horn technique.<sup>35</sup>

Hand-horn technique allowed the musician to now play the horn fully chromatically and the horn became more of a lyrical instrument than the previously limited chordal background instrument.<sup>36</sup> With the hand in an open position inside the bell, what I teach as the “relaxed hand-shake” position, all the open notes on the horn sit fairly comfortably with only minor hand adjustments for intonation. As the hand slowly closes like a “door with the knuckles as the hinge” into an L shape, the pitch of the note goes down. This is because the hand is bending the sound waves and making them longer, and therefore lower in pitch.<sup>37</sup> Once the hand fully blocks the bell, as I call it “shuts and locks the door,” with the back of the fingers and inner wrist pressed flush against the bell, the bell is now too short and the pitch shoots up, roughly a half step depending on the harmonic tendencies of the fingering choice and the ear training and breathe support of the player.<sup>38</sup> This full aspect of hand-horn technique is often not explained to young horn players correctly. It is also a common confusion with modern composers, so they often write bending effects between stopped and open horn in the

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<sup>33</sup> Tuckwell, 26.

<sup>34</sup> Ibid, 27.

<sup>35</sup> Ibid.

<sup>36</sup> Tuckwell, 28.

<sup>37</sup> Bartholomew, 116.

<sup>38</sup> Coar, 72.

wrong direction until corrected.<sup>39</sup> Upwards bends are produced with the stopped to open motion, and downwards bends are produced open to stopped horn. These bends are written with a curved line before or after the note from or to the direction of the bend. Some composers put the hand motion as well and a glissando between, with the note that those are intended as pitch bends.

In the compositions used in this project, one piece, Douglas Hill's *Thoughtful Wanderings*,<sup>40</sup> was specifically for the natural horn. The horn part was therefore limited to notes in the harmonic series and hand-altered notes. Though not found in other pieces on this project, some solo horn repertoire does require the horn player to play sections with natural horn fingerings, specifically to recall the unusual pitch tendencies of the natural horn.<sup>41</sup> These natural horn or natural harmonic series sections are usually written with the fingering or "horn in \_\_\_\_ key" performance directions.

In other pieces in this project I refer to hand technique as either "echo horn," meaning the hand is not fully closing off the bell therefore the pitch is lower than the indicated note as discussed above, or "stopped horn," meaning the hand has fully closed the bell. The fingerings on the modern horn are adjusted as the piece requires and will be discussed case by case for the repertoire on this project. The general accepted practice is to use fingering exactly a half step below the indicated pitch, essentially adjusting for the pitch raising and therefore sounding the indicated pitch.<sup>42</sup> Most performers use the F side of the horn since the pitch change to stopped horn is not as drastic as on the Bb side.<sup>43</sup> However, many performers will often use the Bb side of the horn for stopped passages in

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<sup>39</sup> Coar, 71.

<sup>40</sup> Hill *Thoughtful Wanderings*...performance notes

<sup>41</sup> Tuckwell, 100.

<sup>42</sup> Coar, 72.

<sup>43</sup> Schuller, 57.

the upper tessitura register simply because the Bb side will be significantly more secure.<sup>44</sup> Hand-horn modified notes can be used throughout the entire range but there is a general problem among horn players with low stopped horn notes. These notes tend to not be supported by the air-stream enough for the horn player to control the pitch so these lower stopped notes are often sharp, especially at softer dynamics. Studious practice with drones and tuners will help the horn player's intonation in this register, but a combination of echo horn technique and stopped horn may solve the intonation issue, as will be found in several pieces in Chapter 3. When I teach stopped horn, I teach students to practice stopped scales in direct half-step down on the F-side fingerings and use their ear and a tuner to force the notes into tune. Echo horn is simply the same fingering as the open note but the hand is covering the bell more to lower the pitch. Sometimes this pitch change is too extreme for the ensemble's pitch tendency, so I encourage students to use their ear to bend the pitch back into tune with the same finger so that the echo sound is still attained and the lips develop more flexibility.

Stopped horn can also be attained with the use of a stopped mute, sometimes called a brass mute. This is a small mute separate from the standard straight mute, and is used to create a full seal within the bell and focus the stopped sound. Because stopped mute is a classical technique derived from hand-horn technique, the change from stopped to open is often too quick for a performer to use a mute. There are different stopped effects, which can only be done with a stop-mute and not with a hand stop, which will be discussed more in Chapter 3.

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<sup>44</sup> Schuller, 57.

Stopped notes are typically written with a “+” symbol over the note and an “o” over the open notes after the stopped section. Composers may also use the actual direction “stopped,” or the various translations such as “gestopft” or “sons bouchés” in the German and French, respectively.<sup>45</sup> Echo horn would generally be written as “echo” or with a direction for the hand to not fully block the bell, but as will be seen in this piece some bending effects say they should be stopped horn but the effect is better achieved with only echo horn technique.

Another technique, which I will discuss briefly here in connection to hand horn technique, is the lip glissando. This is when a horn player is directed to play one note and slur to another and hit many notes in between.<sup>46</sup> One way of performing this technique is through one fingering combination and using the lips to catch all of the natural harmonics between the two notes. Glissandi are notated with a jagged diagonal line between the end notes, with or without the word “glissando” written above the line.

## **Multi-phonics**

The horn generally only produces one pitch when the player is just buzzing their lips. In a personal discussion with Baltimore Symphony Orchestra’s former principal tuba player, David Fedderly, I learned from an experiment he participated in that brass player’s vocal chords vibrate sympathetically with the notes the musician is playing. Wind musicians long ago discovered that they could produce multiple notes simultaneously if they produce the note however they produce sounds and simultaneously

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<sup>45</sup> Farkas, 79.

<sup>46</sup> Hill *Extended Techniques*, 43.

hum or sing different pitches through their instrument.<sup>47</sup> This is a common playing technique in native instruments like the Australian Didgeridoo.<sup>48</sup>

In the classical horn repertoire multi-phonics occur very rarely in printed form. There are only a few generally accepted instances, Carl Maria von Weber's *Concertino* Op. 45, a few horn studies by J.R. Lewy, and Dame Ethel Smyth's *Concerto* for violin, horn, and orchestra.<sup>49</sup> In Weber's *Concertino*, the multi-phonics only occurs in the second edition completed in 1815, and some pedagogues theorize the multi-phonics are editorial.<sup>50</sup> The composers of that time period were merely writing out a gimmick famous horn soloists of their day would use in their improvised cadenzas. The most famous soloist in the late 1700's<sup>51</sup> known to use multi-phonics was Giovanni Punto, but there were other soloists who would use multi-phonics to varying degrees.<sup>52</sup> This technique appears to have long been considered a cheap trick for some horn players, but in my discussions with fellow horn players, it is mainly those who have not figured out how to perform them who dislike the effect.

For horn players we produce this effect by playing a note and singing or humming another simultaneously. The most common multi-phonics are playing a lower note in the pedal register of the horn, so a fundamental or only one harmonic above and singing only within two octaves above that. Generally we would play a low pedal note and sing the fifth an octave above. This puts the vocal range required for this typical multi-phonics skill within the tenor register. If the interval we are singing and playing is in-tune and

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<sup>47</sup> Morley-Pegge, 147.

<sup>48</sup> Montagu, 3.

<sup>49</sup> Morley-Pegge, 148.

<sup>50</sup> Tuckwell, 75.

<sup>51</sup> *Ibid*, 124.

<sup>52</sup> Morley-Pegge, 147.

correctly balanced, resultant tones may be heard and so the full chord will sound from one player.<sup>53</sup> To correctly balance the multi-phonics the tone the player is singing must be almost significantly louder than the note they are playing.<sup>54</sup>

Multi-phonics are written either as two lines within the solo horn part or as a horn part with a separate ossia singing line above the horn line. Composers will leave a direction for the performer for which line is to be played or hummed, and if there are two separate lines, what key each is in. For instance, the lower played line may be horn in F, while the hummed upper line may be written in concert pitch. The multi-phonics may be labeled as “double stop” or it is assumed that the performer knows to produce the two notes simultaneously.

When learning how to produce multi-phonics, the challenge here is the horn player being able to hear a chord first. I often compare horn playing to singing through a big pipe because the horn player must be so focused on the sound of the notes they are trying to play. When teaching or learning a multi-phonetic passage I would play the chord on a piano since that sound is what we must produce, so we must hear the two pitches as one sound. The second main challenge, for female players in particular, is vocal range. I am fortunate that I can sing down to a sounding bass clef Eb or D without much vocal training. This register is the range the voice needs to be singing in for the resultant tones to be heard, and the voice must be strong enough in this register to almost scream out the notes. Most women are not so fortunate and often take the entire multi-phonetic section up an octave or out of the music completely. While this changes some of the old standards like Weber’s *Concertino*, I feel modern composers could take the rising female

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<sup>53</sup> Montagu, 3.

<sup>54</sup> Hill *Extended Techniques*, 70.

population of horn players<sup>55</sup> into account and use multi-phonics in their pieces better suited to the female voice, or have alternative chords. In my preparation of Helen Gifford's *Of Old Angkor*<sup>56</sup> which will be discussed more below, the close perfect 4<sup>th</sup> the horn performs was in a suitable female vocal range and was still extremely effective in the music.

A small problem I discovered for those writing multi-phonics was the confusion on which performance part went where, meaning the composer thought it was just as easy for the horn player to sing the lower pitch and perform the higher pitch. This problem arose in Silverman's *Protected Sleep*,<sup>57</sup> which will be discussed more below. While I might find this type of multi-phonics to work in a small range of the horn, I could not figure it out in the time I had to prepare the piece this occurred in. In a discussion with Phil Munds, principal horn of Baltimore Symphony Orchestra, he found he could only perform multi-phonics where he sang the lower and played the high pitch with an unhealthy amount of mouthpiece pressure. With this project I would like to educate composers on how to write multi-phonics for horns to prevent any future players possibly damaging themselves.

A major problem I discovered with extensive multi-phonics practice was the extreme fatigue I would suffer after these practice sessions. I have come to believe that this is from competing frequencies crossing our lips as we produce the multi-phonics. As we are playing a single tone, our lips are buzzing that frequency.<sup>58</sup> When we hum a

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<sup>55</sup> Hill *Extended Techniques*, 70.

<sup>56</sup> Gifford *Of Old Angkor*, mm 41-46.

<sup>57</sup> Silverman *Protected Sleep*, mm 180-end.

<sup>58</sup> Benade, 165.

second note simultaneously, this frequency is also going past our lips.<sup>59</sup> I found when I was producing multi-phonics with the sung note an overtone of the played note I could feel the two pitches but was not fighting to produce the chord. When I had to perform dissonant intervals however, I could literally feel my lips being pushed away from the dissonant interval and into the overtone of the played note. Maintaining the dissonant intervals is extremely taxing and I believe potentially damaging to the horn player because their lips are working at least twice as hard to produce the sounds. Future composers should be aware of this issue and use dissonant intervals sparingly in multi-phonic sections to not risk the overall embouchure health of their horn player. I strongly advise future multi-phonic performers, in particular horn but possibly all brass or wind instrumentalists, to restrict their multi-phonic practice sessions to small amounts of time each day to not cause any accidental damage from over-use.

### **Valve-Effects**

With the invention of the modern rotary valves in the 1820s and 1830s,<sup>60</sup> players probably noticed some issues. If any valve is not depressed or released fully, the air goes through all the tubes that are open. However, because the air column is distorted from the valve's halfway position, the pitch is distorted and makes a hollow sounding version of the notes the player was attempting to play.<sup>61</sup> Modern composers enjoy this far-away sound and write specifically for it. The most famous instance in horn literature is Oliver Messiaen's "Appel interstellaire" from *Des Canyons Aux Étoiles* (1974), often performed

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<sup>59</sup> Bartholomew, 140.

<sup>60</sup> Tuckwell, 44

<sup>61</sup> Hill *Extended Techniques*, 51; Tuckwell 118.



out of context as a horn alone solo.<sup>62</sup> In this solo the horn is directed to shake or trill quickly between the various pitches so the tone is not steady. Half-valving technique existed as a jazz technique called “swallowing” or “ghosting” for trumpets long before the technique entered classical horn literature.<sup>63</sup>

Different pitches can be attained depending on the valves used or the lips of the player since there are harmonics available in the half-valve positions. In this project composers generally wrote “half-valve” and/or put x’s for note heads since the pitch will be approximate. When the half-valve music was over a phrase and the composer wanted freer interpretation, the composer used a graphic line technique, which will be seen and discussed below.

Another valve effect is the finger trill. As discussed above, lip trills were limited to the nearby harmonics and are produced with rapid motion of the lips. The modern valved instrument can now do a wider variety of interval trills because of the valves. The most common trill I have found has now become the half-step trill, which is only available as a valve-trill or in the extreme tessitura range of the horn as a lip trill. Finger trills are produced by quickly alternating between two different fingerings. In the discussion of the pieces with finger trills below, I will refer to two fingerings but I will mean the quick alternation between those two fingerings. As with lip trills above, valve trills are also written either with the word “trill” and a jagged horizontal line over the sustained note or some abbreviation or translation of the word trill. Some composers may put the two trill notes together, and if the interval sits in the harmonic series the trill is performed as a lip trill, but any other interval would be a valve trill as discussed here.

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<sup>62</sup> Messiaen, VI, “Appel interstellaire.” 155-159.

<sup>63</sup> Hill *Extended Techniques*, 52.

As mentioned above, the glissando is a common technique used. Glissandi can be done with just the lips as already discussed, or half-valved between the two different landing pitches, or with the use of fingerings. For half-valved glissandi I slowly change fingerings between the two notes I am glissing between so that I catch the whistling sound of the half-valve. This effect works best at slower tempi. When I perform valve glissandi I use what I call a “roll of the fingers,” where I start with whichever fingering for the starting note of the glissando and press in order valve 3, 2, 1 and end quickly on the final fingering of the landing note. While I do this finger motion I also try to do a harmonic glissando so the combined lips and fingers catch many distinct notes within the glissando. As stated above with lip glissandi, valve glissandi are notated with a jagged diagonal line between the end notes, with or without the word “glissando” written above the line. Half-valved glissandi would have “half-valved” written as well above the glissando.

### **Popular Minor Technique: Flutter-Tongue**

I initially considered flutter-tonguing more of a minor effect since it is not a hand or valve technique, but is instead more of an oral technique since it is using the tongue in a different way than a typical articulation. As I worked through these pieces, however, I found this effect among the most common extended techniques found in the repertoire. Flutter-tongue is achieved by rolling the tongue like the speech rolled-R while playing to achieve a growling sound.<sup>64</sup> Generally the only issue in performance is the performer who cannot roll their Rs. I am fortunate that I learned this oral technique when I was younger. For those performers who cannot roll their Rs, possible alternatives include a

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<sup>64</sup> Hill *Extended Techniques*, 32.

throat growl, vocalization of the unison note, some combination of double or triple tonguing, or even a trill.<sup>65</sup> The alternatives used depend on their fit with the passage in the music since some are more aggressive than the composers may have intended.

Generally, the flutter-tongue effect can be used throughout the entire range of the horn and at most dynamics. However, I found notes above the treble staff somewhat challenging to flutter. From personal analysis, I find that for higher notes the oral cavity is more closed, but for the flutter-tongue the oral cavity needs to be somewhat more open. The horn player has to practice high flutter-tongued notes to figure out which oral shape works best for them or how much extra mouthpiece pressure they might need to deal with these competing oral shapes.

Flutter tonguing is notated either with “flutter-tongue” or “frullato” written above the note or an abbreviation of the word, followed by an “ordinary” or abbreviation, meaning normal tone. The direction is also used in combination with triple slashes through the note-stems. Some composers just put the triple-slashes through the note-stems since this effect has become fairly popular. Composers also write “growl” above the passage and this effect is generally accepted to be flutter-tongue since the effect does sound like a growl in louder dynamics.

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<sup>65</sup> Hill *Extended Techniques*, 32-33.

## Chapter 3. Repertoire

In this chapter I discuss the pieces used for this project individually. I briefly discuss the composer, piece, and musical form of each piece but the primary focus of this project is discussing the extended techniques. Therefore, the main body of text for the following repertoire is a discussion on how to perform the various techniques. The score samples are primarily horn in F, so if there are no markings otherwise assume the notes are in F. If I have used a concert pitch score or original part from which the horn part was transcribed to produce the sample the horn part is listed in this other key. This discussion is alphabetical by composer. The pieces are listed by recital in the *Recital Dates and Repertoire* section above. The pieces with extensive score sampling are reproduced here by permission of the publishers or composers as applicable.

### Howard J. Buss, *Dreams from the Shadows* (2015)<sup>66</sup>

*Dreams from the Shadows* for horn and vibraphone is dedicated to the hornist Gene Berger and percussionist Braham Dembar at Ball State University.<sup>67</sup> According to Dr. Buss, this piece has many different moods and sections to “suggest a dream-like collage of sonic atmospheres.”<sup>68</sup> There are only audio samples of this piece available on the publisher’s website, if there has been a recording of this piece it is not yet available to the general public.

In this piece there are not many extended techniques used. The main technique is the use of both lip and valved trills, but there is a brief stopped note passage. For the following trills refer to the applicable *Valve Effects* or *Hand-Horn Technique* section in Chapter 2 above. The first trill passage is in measures 33 to 34, pictured below in Figure 1. I fingered this half step trill C# to D $\natural$  on the Bb side 2+3 to 3. Other viable fingerings are F side 3 to 0, or 1+2 to 1. The usual fingerings for those notes would be a trill Bb side 2+3 to 1+2, causing the player to need to alternate two fingers quickly which would lead to a trill of more than the two desired notes. I begin this trill at full speed and in measure 34 hold a steady C#. Though this trill is not marked for the horn player to stop the trill, many of the other trills in this piece lead to straight tones so I decided to have this trill match the following trills.

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<sup>66</sup> Buss, Howard J. *Dreams from the Shadows* for horn and vibraphone. Brixton, 2015. Permission to use score samples granted by composer March 26, 2016.

<sup>67</sup> Buss *Dreams* cover performance notes

<sup>68</sup> Ibid.

**Figure 1: Buss *Dreams from the Shadows*, mm 33-34.**



Dr. Buss features a fingered half-step trill in measures 66-67, which can be seen in Figure 2 below. This technique is straightforward, fingered Bb side 1+2 to 1, which are my normal fingering of these two notes. It could also be fingered on the F side 1+2 to 1 but I find the clarity of the Bb side helps the trill sound more aggressive. I begin the trill at a high speed from the lower note immediately where marked to contrast the following “no trill” performance marking. I could have started fast and slowed into the held tone but the trill moment is brief.

**Figure 2: Buss *Dreams from the Shadows*, mm 66-67.**



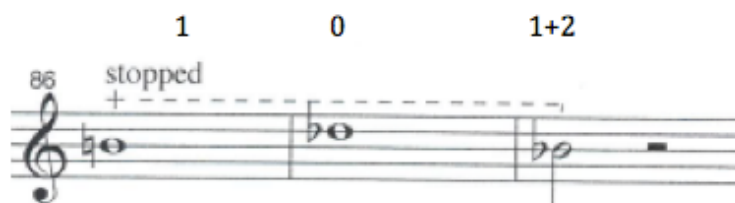
The next trill passage is shortly after in measures 77-78, shown below in Figure 3. Here the sound quality is different from the preceding trills both from the different pitches used and because of the use of the mute. The execution is the same as the previous A to Bb trill, Bb side 1+2 to 1. The trill again goes to a straight tone. I am choosing to have a fast immediate trill starting on the lower note, which I stop abruptly but again it could be slowed down to the straight tone.

**Figure 3: Buss *Dreams from the Shadows*, mm 77-78.**



The next extended technique is the use of stopped horn in measures 86-88, shown below in Figure 4. This passage is still significant because of the use of slapstick in the vibraphone part. The tones on the vibraphone are softer and do not linger as long as regular cord mallets, so the horn's stopped tones are the sustained sound in these bars. As discussed above in the *Hand-Horn Technique* section of Chapter 2, the stopped horn part here is executed by fingering the notes a half step down, in the range used here usually on the F side to help lower the pitch. However, in this piece because the vibraphone is tuned to A442, I am choosing fingerings that set the pitch slightly higher to more easily play in tune with the vibraphone. In particular, the horn's written stopped Db I usually finger on the F side 2+3 to set it for A440, but instead I use the fingerings shown in Figure 4.

**Figure 4: Buss *Dreams from the Shadows*, mm 86-89.**



The last extended technique in the piece is a trill written high G up to A in measure 189, shown below in Figure 5. This is a whole step trill because there are no accidentals marked in the trill, and because of the range it has the option of being

performed as a valve trill or a lip trill. I am choosing to perform this trill as a lip trill because the partials are so close together in this tessitura range, in my opinion fingers will get in the way more so than aid the trill. I am performing this trill on the open Bb side. For a finger trill the options are Bb side 1 to 1+2, Bb side open to 1+2, Bb side open to 3, and almost the same options on the F side, which I find less stable. I am choosing to start the trill from the lower note of the trill immediately at high speed to match the preceding trills and add more excitement to the end of the piece. The trill could have been executed with a slow start and accelerated to the final bar, but I prefer the dramatic sudden start to compliment the preceding 16<sup>th</sup> notes in bar 188.

**Figure 5:** Buss *Dreams from the Shadows*, mm 188-190.





### Howard J. Buss, *Night Tide* (1995) <sup>69</sup>

*Night Tide*, by Howard Buss, is “an impression of the New England coastline at night and features an evocative interplay between turbulent and serene sections.”<sup>70</sup> The composer wrote his own poem for use as program notes to appear with this piece.

#### NIGHT TIDE

Under cover of darkness waves storm the rugged coast.

Invisible crests and troughs coax reluctant rocks

From their sand beds,

Lapping and tugging,

Swelling and falling.

Drama unseen though felt as if time were real,

Patiently counting the droplets and grains pitted at odds,

Fragmenting one another in a marathon of spray and sand, cascades and claps:

Determined adversaries with no desire to win or lose,

Only to battle through endless tide cycles.

-Howard J. Buss<sup>71</sup>

There is no commercially available recording of this piece. However, a few artists have recreationally recorded *Night Tide*. This duet for horn and marimba is brief but with a lot of drama between the contrasting sections. Dr. Buss frequently uses horn straight mute in the calmer sections of the piece, which provides a color change for the two instruments. As mentioned in Chapter 1, for the purpose of this project I decided regular straight mute use was not an extended technique. Dr. Buss gives the horn player a decent amount of time to change from muted horn to open horn so none of the muted passages need to be stopped instead. Often, when composers write too little time for the horn

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<sup>69</sup> Buss, Howard J. *Night Tide* for French horn and marimba. Brixton, 1995. Permission to use score samples granted by composer March 26, 2016.

<sup>70</sup> Buss *Night Tide* cover performance notes.

<sup>71</sup> Ibid.

player to change from muted horn to open or the reverse, many horn players will instead play the muted part stopped or echo horn.<sup>72</sup>

There are only a few uses of extended techniques in *Night Tide*. There are two instances of the use of flutter-tongue in the horn part, the first in measure 31, the second in measures 111 to 112, both pictured below in Figure 6 and Figure 7. As can be seen in both Figures 6 and 7, the flutter-tongue is marked with both the “f. t.” and the slashes through the note-stems, followed by an “ord.” marking which means play normally, or with out flutter-tongue, as discussed above in Chapter 2. In my preparation of *Night Tide*, I discovered in my attempts to bring out these few effects and play the flutter-tongue moments significantly louder was actually detrimental to the effect. I found I fell off the note because I pushed air too much for the tongue to roll correctly. Future performers of this piece should experiment with the dynamics at which they can both bring out of the flutter-tongue and maintain the effect for these brief passages.

Figure 6: Buss *Night Tide*, mm 31.



<sup>72</sup> Farkas *French Horn*, 78.

Figure 7: Buss *Night Tide*, mm 111-112.



**George Crumb, *An Idyll for the Misbegotten*, trans. Robert Patterson**

**(1986/1997)<sup>73</sup>**

George Crumb wrote a brief description of this piece for use as performance notes. The same description appears in both the original flute version and the transcribed version by Robert Patterson.

I feel that “misbegotten” well describes the fateful and melancholy predicament of the species *homo sapiens* at the present moment in time. Mankind has become ever more “illegitimate” in the natural world of the plants and animals. The ancient sense of brotherhood with all life-forms (so poignantly expressed in the poetry of St. Francis of Assisi) has gradually and relentlessly eroded, and consequently we find ourselves monarchs of a dying world. We share the fervent hope that humankind will embrace anew nature’s ‘moral imperative.’...

I have suggested that ideally (even if impractically) my *Idyll* should be “heard from afar, over a lake, on a moonlit evening in August.”

*An Idyll for the Misbegotten* evokes the haunting theme of Claude Debussy’s *Syrinx* (for solo flute, 1912). There is also a short quotation from the eighth century Chinese poet Ssu-K’ung Shu:

“The moon goes down. There are shivering  
Birds and withering grasses.”

-George Crumb<sup>74</sup>

Originally for amplified flute, Robert Patterson, a virtuoso horn player and composition student of Crumb, transcribed this work for solo horn. The percussion part is identical between the two versions; only the solo wind part is changed. Upon hearing the transcription, Crumb wrote, “the horn, with its enormous evocative power, creates an effect at the same time more intense and primitive than the flute is capable of.”<sup>75</sup> There is so much that has and could be written about the original flute piece and its inspiration and commentary on Debussy’s solo flute piece, *Syrinx*, that it could form another paper. Since

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<sup>73</sup> Crumb, George. *An Idyll for the Misbegotten* for horn and drums. Transcribed for horn by Robert Patterson (1997). C.F. Peters. Original for flute 1986. Permission to use score samples received April 18, 2016.

<sup>74</sup> Crumb *Idyll* cover notes.

<sup>75</sup> Ibid.

this is not the topic of my project I am delving more into the extensive use of extended techniques in this piece. *Idyll* has the benefit of the arranger, Robert Patterson, writing an essay about how he went about transcribing this piece for horn, found in *George Crumb and the Alchemy of Sound: Essays on his Music*.<sup>76</sup> For each of these effects, I was able to reference Patterson's discovery and expand upon the effects to help a future horn player master the various effects in this piece.

There are three mixed percussionists in this piece. All three play different sizes of bass drum: small, medium, and large. Players I and II also play Bongos, African log drums, and 5 toms. All three must be able to produce a "lions-roar" effect on the bass drums, and each player used different means to produce the effect as they needed. We performed this piece with the three percussionists spread apart on stage while I was up in a balcony above with the stage lights dimmed. This was to evoke the desired "heard from afar"<sup>77</sup> listed in the cover notes.

A common recurring effect is the pitch bend, seen in Figure 8. Patterson directs the horn player to perform these bends with the hand closing the bell with the fingering of the open notes. I choose to also bend the pitch further than marked with my lips to ensure the bend was going low enough. For this effect the hand does not fully stop the sound, these bends are just to echo or partially closed notes. Most of the pitch bends are from open down to echo, but as will be discussed later, there are a few select bends in the opposite direction. Another similar recurring effect is the "turtle-dove effect." The "turtle dove effect" is performed by combining a lip trill with a hand-pitch bend. Patterson gives

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<sup>76</sup> Bruns et al. (2005), 195-209.

<sup>77</sup> Crumb *Idyll* score cover notes.

the horn player suggested fingerings for each of these effects, most of which work on common horns. Lip trills and echo horn was discussed above in the *Hand-Horn Technique* section of Chapter 2.

Figure 8: Crumb *An Idyll for the Misbegotten*, page 4.



Figure 9: Crumb *An Idyll for the Misbegotten*, page 12.

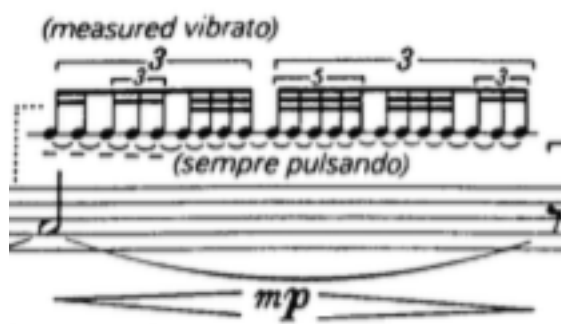


Another recurring technique is a “measured vibrato,” shown below in Figure 10. There are several ways for a horn player to perform a vibrato in general.<sup>78</sup> The simplest to achieve is possibly the hand vibrato, where the player bends the pitch with the hand like echo horn technique, but rapidly alternating open to closed. I am not opposed to this version but I feel the effect is not as powerful as some other methods of vibrato. There is the “diaphragmatic vibrato” where the horn player flexes their diaphragm or their

<sup>78</sup> Hill *Extended Techniques*, 61.

throat.<sup>79</sup> I personally have not been able to perform this type since my diaphragm is what I use to support notes so pulsing it drops the note's support for me. There is a jaw vibrato where the horn player moves the jaw or some other aspect of the oral cavity to change the pitch. I find this type of vibrato works best in the lower registers where the embouchure is looser and I find it makes a nice slow vibrato. The vibrato I used to perform these passages I consider more like a narrow lip trill motion, which does not change the notes like a normal lip trill but instead raises and lowers the one pitch we are holding. With this type of vibrato I can change the speed as marked, similar to a lip trill accelerating, and can be very quick which I feel gives the more wild character to these passages.

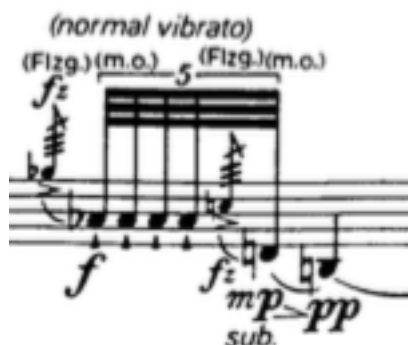
**Figure 10: Crumb *An Idyll for the Misbegotten*, page 4.**



Another recurring effect is the use of flutter-tongue, discussed in Chapter 2. This is marked both with the triple lines through note stems and the direction “flzg.” Flutter-tongue is used with both the open horn, as shown below in Figure 11, and later on combined with stopped horn as shown in Figure 12. The combination of stopped horn and flutter-tongue is used extensively in this middle passage as a substitute timbral change for the original flutes’ octave leap throughout this section.<sup>80</sup>

<sup>79</sup> Hill *Extended Techniques*, 61.

<sup>80</sup> Patterson 199-200.

Figure 11: Crumb *An Idyll for the Misbegotten*, page 4.Figure 12: Crumb *An Idyll for the Misbegotten*, page 10.

Stopped tones and echo horn are also common effects in this transcription. The first true stopped tones appear at Rehearsal 6, shown below in Figure 13. The stopped tones before were the bent pitches, which results in more of an echo-horn technique. The fully stopped tones in this piece were performed in direct half step down fingerings on the F side, or on the Bb side for higher stopped notes since the Bb side is more secure, as discussed above in the *Hand-Horn Technique* section of Chapter 2. Because some of these stopped flutter-tongued sections are extremely difficult, if I found an easier fingering for the sake of less-complicated finger motions I am using that instead. Intonation is not much of a concern in this piece since the percussion's pitch relation to the horn is not an issue (the toms and bass drums are tuned relative to each other). Patterson uses the quick alternation of stopped to open throughout as an alternative to the

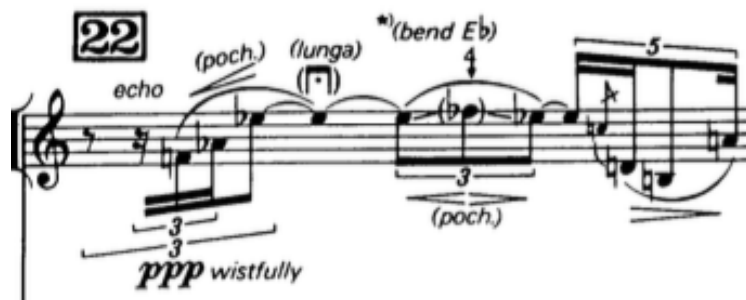


flute's original octave jumps, which was a sound color change approved by Crumb.<sup>81</sup> Echo horn occurs in the recapitulation of the opening theme after Rehearsal 19, shown below in Figure 14. The echo horn usage allows for the pitches to be bent upwards with the motion closed to open, which is described in the performance notes<sup>82</sup> for the section shown below in Figure 14.

Figure 13: Crumb *An Idyll for the Misbegotten*, page 6.



Figure 14: Crumb *An Idyll for the Misbegotten*, page 12.



There are three passages of multi-phonics around Rehearsal 9 and Rehearsal 10; the first is shown below in Figure 15. As seen in Figure 15, these are labeled as “double stop” but the performance is the same as multi-phonics and is fully described in the *Multi-phonics* section of Chapter 2. Patterson directs the performer which lines to play and hum. The singing line is written in concert pitch, which is noted at the bottom of the

<sup>81</sup> Patterson 200.

<sup>82</sup> Crumb *Idyll* performance notes, 12.

page in the score. These vocal lines can be daunting for female horn players. I am fortunate that I have a lower female vocal range and am able to sing the lines as marked. Other women with higher voices can sing an octave higher. While the effect is similar, the octave change makes the resultant tones, which occur with in-tune multi-phonics, harder to discern. Patterson, in his article, suggests future performers have the percussionist stage whisper the original flute's speaking ("Speak flute") line so that the original poetry is still present in the music.<sup>83</sup> I choose not to do this just out of preference for this performance but I may use this idea in future performances.

Figure 15: Crumb *An Idyll for the Misbegotten*, page 7.



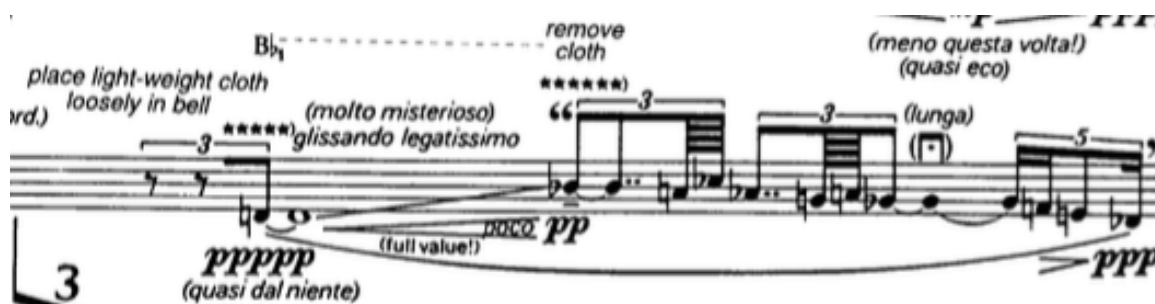
The challenge I found in these multi-phonics were the dissonant intervals used. As discussed in the *Multi-Phonics* section of Chapter 2, a horn player can feel the chord since they are performing the full chord and the overtones from the note they are playing pushes the hummed dissonant interval into an overtone. Future performers need to be aware of this acoustical tendency and really take the time to hear the dissonant interval to perform this section.

The most unique effect Patterson wrote is the use of a cloth placed in the bell to create a smooth glissando, shown below in Figure 16. Most horn glissandi catch

<sup>83</sup> Patterson, 204.

harmonics and can therefore be described as lumpy, as described above in Chapter 2. At the time Patterson was transcribing he was presented with the idea of a foam mute, which disrupts the harmonics and allows the performer to slide smoothly between the tones.<sup>84</sup> Patterson used and suggests in the performance notes a lightweight cotton cloth produces the same effect. Instead of creating another mute, I decided to use a scarf that I found created the effect best. I have several heavyweight silk scarves, which I found worked better than my cotton scarves and choose to use a hot-pink one for fun. This smooth glissando only happens once in the entire piece. According to Patterson, this effect only works in a certain range,<sup>85</sup> and provided the fingering for a standard double horn.

Figure 16: Crumb *An Idyll for the Misbegotten*, page 7.



The above smooth glissando contrasts the regular glissandi, which recur elsewhere throughout the piece. The first is before Rehearsal 15, which features a glissando from C to a high D $\sharp$ , in the extreme high register of the horn shown below in Figure 17. Patterson put in an “Acuto!” marking signifying that the player should aim for the actual note and not just any high note. This is the highest note in the piece and corresponds to the highest note in the original flute part.<sup>86</sup> These glissandi recur to

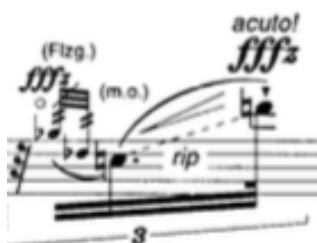
<sup>84</sup> Patterson, 202.

<sup>85</sup> Ibid.

<sup>86</sup> Ibid, 201.

gradually lower notes. Each glissando can be produced the same way, either with just lip glissandi or combination lip and valve glissandi. I am using a combination lip and valve to catch more notes in the glissando to make a greater contrast with the smooth glissando discussed above.

Figure 17: Crumb *An Idyll for the Misbegotten*, page 9.



The next effect required a horn setup, which stayed in effect for the remainder of the piece. Before Rehearsal 17 the horn is directed to prepare their horn as follows:

Remove F 3<sup>rd</sup> valve-slide and replace the upper tube, leaving the lower tube out of the horn. The slide remains in this position for the rest of the piece, so fingerings using the slide should be avoided, except as indicated.<sup>87</sup>

This F 3<sup>rd</sup> valve-slide was chosen by Patterson because the 3<sup>rd</sup> slide on the F horn on most horn models is generally the least used slide of a horn player, and in particular to this piece would not generally be used for the remainder of the piece.<sup>88</sup> This allows for the horn player to “vent” notes, or produce “whisper tones.”<sup>89</sup> As shown below in Figure 18, Patterson gives the fingerings for the two whisper tone sections for the horn player so the performer only has to choose their fingerings if their horns are unusual builds.

<sup>87</sup> Crumb *Idyll*, 10.

<sup>88</sup> Patterson, 204.

<sup>89</sup> Hill *Extended Techniques*, 79.

Figure 18: Crumb *An Idyll for the Misbegotten*, page 11.



**Charles Fernandez, *Metamorphosis: A Horn's Life*, "Prenatal and Toddler"**

**(2016, unfinished)<sup>90</sup>**

Emmy and Annie nominated composer Charles Fernandez reached out to the University of Maryland horn studio with his Holiday Horn Concerto (2012), a three-movement concerto for horn and either band or orchestra, after enjoying our Wind Orchestra's performance at the World Association of Symphonic Bands and Ensembles (WASBE) conference in San Jose, California in July, 2015. In deciding repertoire for my final recital, I decided to reach out to him for a commission. This piece will be the first movement of a larger piece, which he will continue to work on in the future. This is a horn and percussion quartet arrangement of his original conception, which was for solo horn, alto saxophone, bassoon, trombone and electric bass. The version I am performing was reduced at my own request for solo horn, xylophone, vibraphone, and bass marimba. This original movement from his quintet was performed at a composer's concert in early March 2016.

In his own words in a personal correspondence, this piece questions, "What if the French horn were an organic being?" While the specific notes on this idea can only be seen in the horn part, I believe the idea of a horn learning how to play properly is heard throughout. A future project may delve further into the story portrayed throughout this piece; I am focusing on his use of extended techniques.

The main opening feature is the use of vented horn, which in this case the horn player is directed to perform without a main tuning slide.<sup>91</sup> This section is noted that the

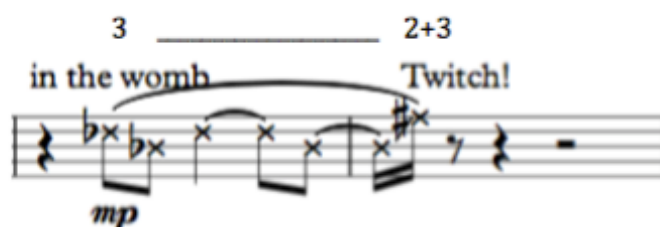
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<sup>90</sup> Fernandez, Charles. *Metamorphosis: A Horn's Life* "Prenatal and Toddler." Trone Music, unfinished 2016. Permission to use score samples granted by composer March 27, 2016.

<sup>91</sup> Hill *Extended Techniques*, 79.

horn should follow the “approximate movement of the line”<sup>92</sup> and the note-heads are replaced with X’s, as seen below in Figure 19. In practice, I found that different models of horns have different amounts of bendability without the main tuning and my Ricco Kuhn W283 is not one of those horns that perform this effect easily. My horn instead slots harmonics of the lead-pipe. I decided to play this section instead without the F 3<sup>rd</sup> valve slide with fingerings like I was directed to use in the similar passage in Crumb’s *An Idyll for the Misbegotten*. The effect of a hollow sound was achieved but I instead aimed for the pitches marked. I discovered fingerings that allowed me to play close to the indicated notes and a sample of the fingerings is also seen in Figure 19.

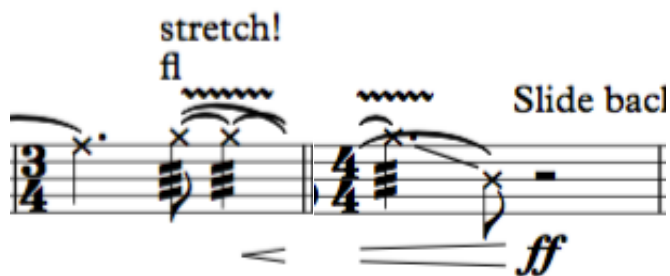
**Figure 19: Fernandez *Metamorphosis* “Prenatal and Toddler,” mm 5-6 (Horn in F).**



Choosing to instead use valves for this venting section allows me to perform glissandi in this section with the help of my remaining valves to get more notes in this section. I combine a valve and harmonic glissando with the vented valve continuously depressed to achieve these glissandi, seen below in Figure 20. In this vented horn section Fernandez also employs flutter-tongue, notated both with the triple-slashes through the note-stems and “fl” and a jagged line above the applicable notes, also seen in Figure 20. Flutter-tongue is discussed in more detail above in Chapter 2. In this section, the flutter-tongued notes are being vented so it creates a hollow rattling sound.

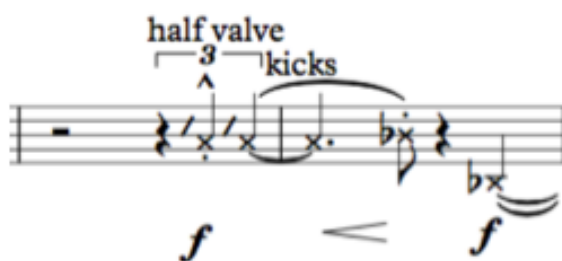
<sup>92</sup> Fernandez *Metamorphosis*, 1.

Figure 20: Fernandez *Metamorphosis* “Prenatal and Toddler,” mm 19-20 (Horn in F).



A recurring technique is the use of half-valve effects. Below in Figure 21 is a sample of the first half valve section. Fernandez puts very clear performer notes in the score for when the slide is returned to normal playing position, though the X-note-heads remain the same as the preceding vented section. I performed the half-valved section with all the valves half-depressed and here did follow the general musical line. Later in this movement the horn player is directed to half-valve glissando between two notes with a half-valve bend, as seen in Figure 22. I perform these bends as extremely slow valve-changes so that I catch the muffled half-valve sound between the two notes.

Figure 21: Fernandez *Metamorphosis* “Prenatal and Toddler,” mm 23-24 (Horn in C).







Another common technique is the use of half-step valve trills. As shown below in Figure 24, these are notated with “finger trill,” or “fngtr” and the usual trill marking of “tr” and a jagged line above the applicable notes. I confirmed with the composer that each of these trills is a half-step trill. Each trill is discussed here briefly since some standard fingerings would make poor trill fingerings. Figure 24 shows the trilled C to C# in measures 35 through 36. This trill I am playing on the F side 2+3 to 3. Other options are F side 0 to 3, F side 0 to 1+2, or Bb side 0 to 2+3. I chose the F side 2+3 to 3 option because I found the notes more settled so the trill could be more effective.

**Figure 24: Fernandez *Metamorphosis* “Prenatal and Toddler,” mm 35-36 (Horn in F).**



The next trill in measures 42 through 43 is shown below in Figure 25. This trill Eb to E♮ I fingered on the Bb side 1 to 1+3. Another fingering option would be on the F side 2 to 0. Either of these are viable options for an effective trill. The normal fingerings for the Eb to E♮ would lead to a trill on the Bb side of 1 to 2, which would be two fingers moving in alternation and is significantly less effective.

Figure 25: Fernandez *Metamorphosis* “Prenatal and Toddler,” mm 42-43 (Horn in F).



Figure 26 shows the trill in measure 48, which features a glissando up to the downbeat of the trill and then a trill E $\flat$  up to F $\flat$ . The glissando effect I am treating like an ornamented grace note before the beat with a roll of the fingers as discussed in the *Valve Effects* section of Chapter 2.

Figure 26: Fernandez *Metamorphosis* “Prenatal and Toddler,” mm 48 (Horn in F).

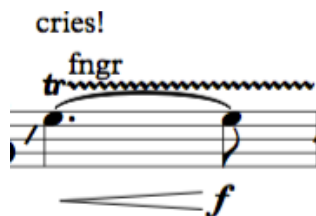
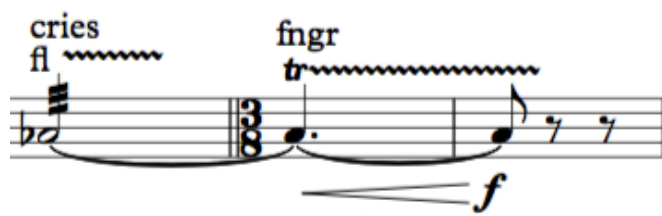


Figure 27 shows the final trill in measure 73, which is preceded by a flutter-tongued identical note in measure 72. When I first began working on this piece I accidentally played a fluttered E $\flat$  and then maintained the flutter through the trill. This combined effect is incredibly raucous and since this is the last occurrence of the “cries” performance note, I decided that was a significant point in the horn’s life and am performing the combined flutter and trill.

Figure 27: Fernandez *Metamorphosis* “Prenatal and Toddler,” mm 72-74 (Horn in C).



### **Helen Gifford, *Of Old Angkor* (1995)<sup>93</sup>**

*Of Old Angkor* is a duet for two players, primarily a horn and marimba, with mixed percussion also occurring in the horn part. In addition to directing the horn player to perform the various tam-tam and Asian gong parts, Australian composer Helen Gifford includes the following performer notes in the score of *Of Old Angkor*:

In June 1970 there was great concern for the fate of the ancient shrine of Angkor Wat, which seemed likely to be damaged or destroyed by the war. I decided to make the piece a lament for the glory of the old Angkor Wat, that for centuries had been the capital and center of the flourishing Khmer empire. In writing for the horn and marimba I had in mind the Cambodian natural horn, the *sneng*, and a type of Asian xylophone.

-Helen Gifford<sup>94</sup>

Since Gifford's notes do not specify the use of open harmonics or hand horn technique, I performed this piece on the regular modern double horn. The extended techniques in the horn part were primarily playing actual percussion parts. I was fortunate to have a percussion player who also instructed me on the various instruments and provided equipment I would otherwise have to borrow on my own. Future performers of this piece should be conscious of the need to play percussion since the tam-tam and Asian gong parts appear in the horn part and their marimba player might not see the notes. Another option for performing this piece would be to have a third player specifically for the various gong parts, but that would not be necessarily so long as the horn player has an open mind about this piece.

For actual extended horn techniques, this piece features a section of close interval muted multi-phonics in measures 41 through 46, shown below in Figure 28. As discussed above in the *Multi-phonics* section of Chapter 2, I am playing the written C# and

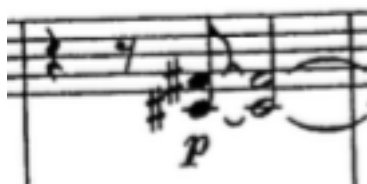
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<sup>93</sup> Gifford, Helen. *Of Old Angkor*. Red House, 1970.

<sup>94</sup> Gifford *Of Old Angkor* cover notes.

humming the F#. The challenge here was the closeness of the intervals, in that the vibrations from the F# I hum causes interference in my lip vibrations with the C# I play. This close interval takes practice since the throat would be more open to hum the F# than it would be to play the C#, so I found I have to focus on keeping the throat extremely narrow to achieve the multi-phonic effect. I practiced for this section by working on parallel fourth multi-phonics in that general range since the intonation of perfect fourths can be challenging as well. The lip-vibration interference tires out the lips so while practicing for this section is advisable, it should be done in moderation to prevent any damage to the delicate lip muscles. The use of mute only changes the color of the multi-phonics and is not the extended technique aspect.

**Figure 28: Gifford *Of Old Angkor*, mm 44.**



The last extended horn technique in this piece is the trill D to Eb in measures 56 and 57, shown below in Figure 29. Gifford uses the typical “tr” and jagged line to notate the trill, and uses the small-notated Eb to show that this is a half step trill. This trill was fingered on the Bb side 1+2 to 1, but could have also been fingered on the F side 0 to 2. I chose to start the trill almost immediately, with just a slight acceleration from the beginning to mimic the marimba rolls featured throughout. I tried to stay at a softer dynamic through the trill since the piece is calming down to the end. I also wanted to conserve enough air to hold the last Eb to *niente* as best as possible.

Figure 29: Gifford *Of Old Angkor*, mm 56-57.



**Douglas Hill, *Thoughtful Wanderings* (1990) <sup>95</sup>**

Douglas Hill is an American horn performer, composer and pedagogue. He has also written numerous books about the French horn, two of which, his *Collected Thoughts on Teaching and Learning, Creativity, and Horn Performance* (2001) and *Extended Techniques for the Horn: A Practical Handbook for Students, Performers, and Composers* (2010) were frequently consulted for this project. *Thoughtful Wanderings*<sup>96</sup> was composed for natural horn, though may be performed on the modern horn with harmonic fingerings, meaning using the fingerings to set the horn in the various keys described and using the natural harmonic series of the fingering used to achieve the different notes. I performed this piece on my replica of an 1820 Franz Stohr model natural horn built by Lowell Greer.

Hill included the following passage as performance notes for this work:

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<sup>95</sup> Hill, Douglas. *Thoughtful Wanderings for natural horn and percussion, based on the Musics of Native Americans*. Self Published, 1990. Permission to use score samples granted by composer April 8, 2016. Typeset edition provided by composer.

<sup>96</sup> Hill *Thoughtful Wanderings* cover notes



To Native Americans, music has been the breath of the spirit of all life. There is scarcely a task, an event, or a feeling which does not have its own and fitting song. It is generally thought that these songs come to the Indians through dreams or visitations, and that people are only receptacles for this music and feel responsible to unravel its content and design.

This music might superficially be thought of as some of the world's least substantive, however, when taken within the social, poetic, and spiritual contexts from which it comes one perceives a further message...

*Thoughtful Wanderings* was composed for the natural horn because of its limitations to "nature's scale," and for the closeness of that set of pitches to the scale of the traditional six-holed Indian flute. The horn's powerful sound and articulated energy can also easily become one with the dance rhythms and "drums" of the ceremony.

Titles for these pieces were chosen while being composed rather than before, thus describing where this music was carrying me.

-Douglas Hill<sup>97</sup>

This piece is unique in the horn repertoire in general because it is a modern composition for the natural horn. *Thoughtful Wanderings* also includes a tape track of various nature sounds, which also puts it in the horn and electronics genre, which is also unique but growing. The set of tape parts includes several different variants of some of the tracks, allowing the performers some additional variation in their performances. The first three movements have very clear paired tape tracks in the provided nature sounds tape in relation to the score and I am using those as marked in the score. The final movement, "Spring Dance," I am taking some liberty with my performance. Instead of starting with the thunder/rain track and turning it off for the actual dance, as marked in the score, I am starting with the wind track used in the first movement, and between the loud call and the actual dance music have the track changed to the thunder/rain track, as if the opening call called the rain. Hill provided two separate thunderclap tracks and I decided to use both separately and end with the loudest thunderclap.

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<sup>97</sup> Ibid.

Hill directs the performers to use Native American percussion instruments throughout this work. As described in the cover notes above, this is a main theme to the piece. There are several recordings of this work, as listed in the CD bibliography below, and all were referenced for intended Native American percussion sounds. There is also a full tape part that includes the nature tracks and percussion part, but I am using an actual percussion player. Due to the difficulty in acquiring a full set of authentic instruments, we improvised some of the equipment used. The percussion requested and used instead is listed below in Table 3.

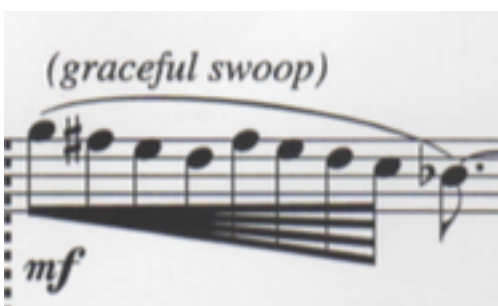
**Table 3: Percussion requested verses used for Douglas Hill's *Thoughtful Wanderings*.**

Percussion Requested	Percussion used
Indian Drum	Traditional Native American drum played simultaneously with low tom
Low Hand-drum sound	Same as used for Indian Drum
Medium soft wool-headed mallet	Hard vibraphone mallets
Loud sticks* (New edition specifies not claves but this was unknown at time of performance.)	Claves
Wind chimes (glass and ceramic together)	Combination of meinel "hand chimes" and hanging uyot seeds
Rattle (with crisp sound and extended roll)	Iat leaf seed pod shaker
Indian Ankle bells	Combination of iat bell cacho shaker and belly dance coin scarf
Deer hoof rattle	Uyot seed rattle

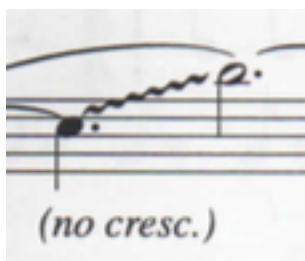
I choose to perform this entire work on natural horn with the specified crooks, so therefore am performing in the specified keys. From the discussion above on *Hand-Horn Technique* in Chapter 2, any note not in the harmonic series was therefore a hand-altered note. These will be discussed more below. The use of harmonics changes the relative pitch most people are accustomed to hearing, aiding to the raw sound of the piece.

In “Eagle at Ease in the Sky,” the main effect is the “graceful swoops” as seen before Rehearsal 1 below in Figure 30 and recurs in several places in this movement. I considered these similar to a glissando, but with a jump backwards in the middle and an *accelerando* throughout the glissando since that is the general interpretation of the increasing beam lines in the run. These figures were out of time in contrast to the timed glissandi used elsewhere, shown in Figure 31. The actual glissando is written with the jagged angled line between the notes and because I am using a natural horn can only be a harmonic lip glissando as discussed in the *Hand-Horn Technique* section of Chapter 2. The other effects with neighboring grace notes in this movement are only unusual to the ear because they are in the natural harmonic series, so this pitch where these notes lays are not in standard tuning but are where the harmonics natural sit.

**Figure 30:** Hill *Thoughtful Wanderings* "Eagle at Ease in the Sky," page 1.

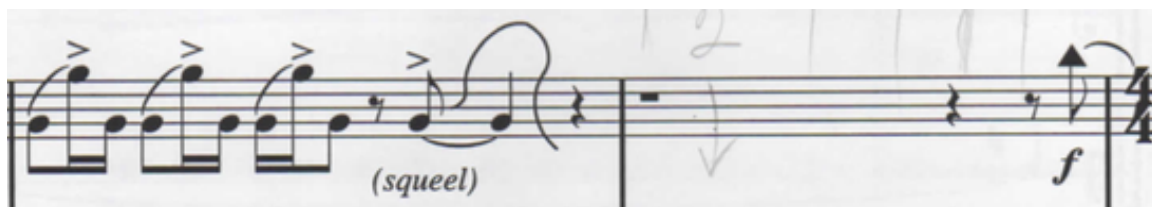


**Figure 31:** Hill *Thoughtful Wanderings* "Eagle at Ease in the Sky," page 2.



In “Six-Legged Dance” there are two different effects, which recur a few times. The main effect is the “squeel” shown below in Figure 32. I am performing this effect as a rhythmic lip glissando, which went up as high as I could and returned to around the initial written G starting point. Since the percussionist is resting he let me be somewhat free with the motive. This effect recurs again towards the end of this movement. The next effect is the pickup into measure 25 also shown in Figure 32, an entrance from an undetermined high note, which glissandos down to the downbeat. I am aiming for a specific pitch around the high written C so that I can have more glissando effect, but anything higher than the written G would work. This is the only time the effect occurs which is why I want to start higher than the high written G’s throughout this movement to contrast the notes.

**Figure 32: Hill *Thoughtful Wanderings* "Six-Legged Dance," mm 23-24.**

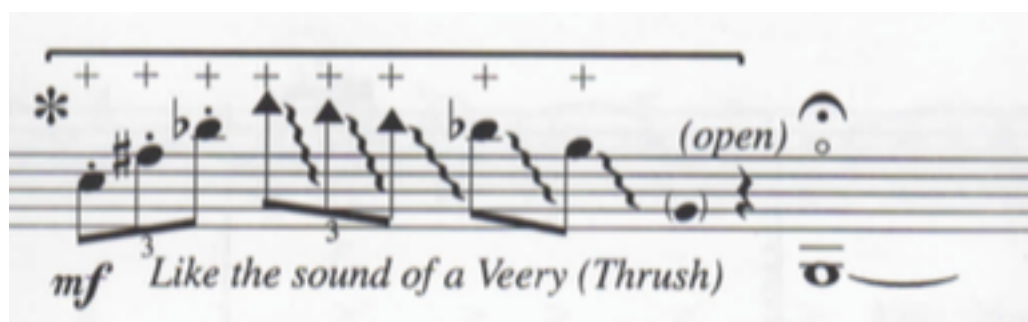


The third movement titled “Woodland Trail” begins with an extensive melodic passage featuring the natural harmonics. The main effect in this movement is the horn player’s imitation of a Veery (small forest thrush) bird call,<sup>98</sup> in a way almost reminiscent of Oliver Messiaen. This bird call effect recurs as two brief cadenzas in this movement, shown below in Figure 33. I am aiming to perform them both the same way since they are written identically. The opening stopped notes I am playing stopped horn but aiming more for effect than specific pitches up to a random highest note for the first beat of the

<sup>98</sup> Hill *Thoughtful Wanderings* score, 3.

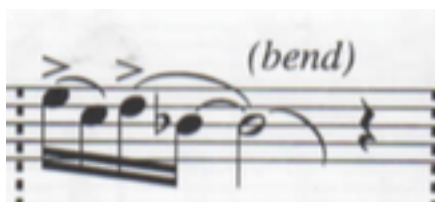
next triplet. For each of these triangle notes I am articulating them open with a general descending decelerating line, and each of the glissandi following them I both lip glissando down to a random pitch and use my hand to bend the pitch. The hand bends are not specified by the composer, but were an effect I found made the bends more dramatic from the open higher notes. The opening stopped notes of the call and my use of the hand for the bends are the first use of actual hand-horn technique in this piece. More details about hand-horn technique can be found in the *Hand-Horn Technique* section of Chapter 2.

**Figure 33: Hill *Thoughtful Wanderings* "Woodland Trail," page 5.**



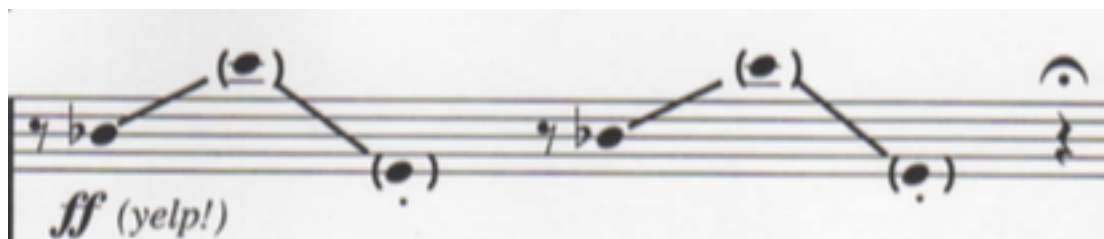
The final movement, "Spring Dance," begins with a forte call, in which the longest phrase ends with a pitch bend shown in Figure 34. Since this is specified as a bend I am performing this with my hand like echo horn, which is described further in the *Hand-Horn Technique* section of Chapter 2.

**Figure 34: Hill *Thoughtful Wanderings* "Spring Dance," mm 4.**

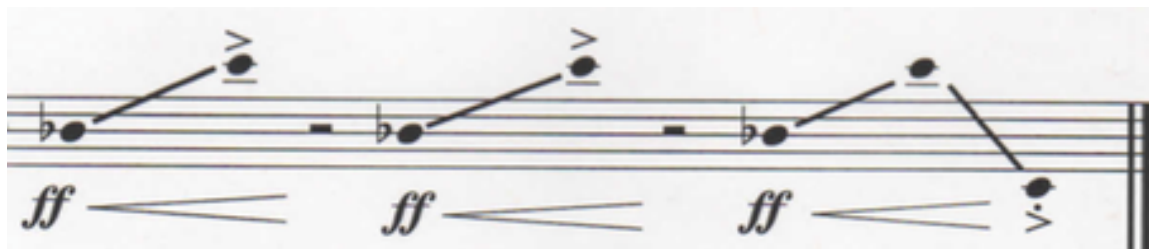


The main effect in this movement is the “yelp” heard several times and shown below in Figure 35. I am performing these as glissandos that went up and down to the specified pitches, but were much longer and more drawn out to catch more harmonics. The final “yelp” section at the end of the piece is slightly different and shown in Figure 36. For these I am following the lines as marked and drawing out the glissandi to catch as many harmonics as possible. The final note of this movement I am choosing to play an octave lower to match the thunder and sound more final for the end of the piece.

**Figure 35: Hill *Thoughtful Wanderings* "Spring Dance," mm 33.**



**Figure 36: Hill *Thoughtful Wanderings* "Spring Dance," mm 56.**



**Pierre-Yves Level, *Duetto pour Cor en Fa et Percussion* (1999)<sup>99</sup>**

According to a review of this work and another work in the series *Collection D'Œuvres pour Cor* from the Paris Conservatoire, in which this piece appears, this work is meant to be a teaching work to introduce young musicians to modern music.<sup>100</sup> As far as I can find, there have been no recordings of this piece despite its accessibility. This is a duet for two players: horn and a single mixed percussion player. The percussionist plays marimba, snare drum, 2 cymbals, and 3 toms. Since the cymbals are never struck simultaneously my percussionist used only one cymbal. In the score one section of the marimba part may also be performed on a vibraphone, but that is optional so for the sake of flow with stage changes we chose to only use marimba.

This piece alternates between free dialogue sections and strictly rhythmic sections. The main effects in this duet are stopped horn and bends from open to stopped horn. Stopped horn appears with both the standard + symbol and the French performance note “sons bouches,” as shown in Figure 37. For the stopped horn parts I am using direct half step down fingerings on the F side of the horn, as discussed in the *Hand-Horn Technique* section of Chapter 2. Intonation for some of the sections of stopped horn is only important for my own sound since sometimes the percussion is not pitched. In one stopped section the percussion is using the marimba, which is tuned to A442, so Bb side fingerings would be acceptable despite their sharp tendency in the passage shown in Figure 37.

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<sup>99</sup> Level, Pierre-Yves. *Duetto pour Cor en Fa et Percussion*. Editions Combre, 1999.

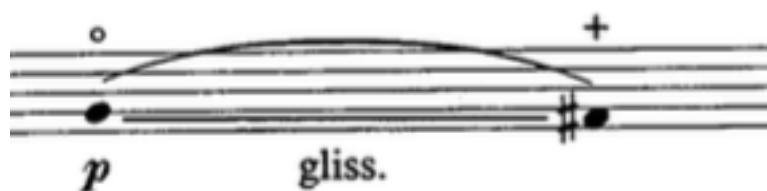
<sup>100</sup> Scharnberg, 89.

Figure 37: Level *Duetto pour Cor en Fa et Percussion*, mm 27.



There are many recurrences of bends from open to stopped horn. The one shown in Figure 38 is from G down to F# and is performed with the hand closing off the sound with the fingering remaining the same for the G. Therefore I am using more of an echo effect since if the performer continues to fully stop the final note of these motives they must change the fingering, which can cause a lump in the sound of the smooth bend. I am choosing to interpret the glissando marking under the motive as a bend instead of valve-glissando both because of the motion from open to stopped horn and because the interval is only a half step in every reiteration.

Figure 38: Level *Duetto pour Cor en Fa et Percussion*, mm 28.





### **David Macbride *Elegy for Horn and Timpani* (2009)<sup>101</sup>**

David Macbride is an American composer based in Hartford Connecticut and is a professor at the Hartt School, University of Hartford. He writes extensively for percussion and voice in various ensembles.<sup>102</sup> In a personal correspondence with the composer, he informed me that this work was commissioned and premiered by Adrienne and Tracy Wiggins in 2002. As listed in the name, this is a duet for horn and multiple timpani. The score only directs the timpanist to use three drums but for the sake of pitch and note availability my percussionist is using 4 drums. The composer stated that this work is aptly titled because it is a “quiet, contemplative” reflection.

The main effect in this piece is hand horn technique, primarily stopped horn except for one passage, which may be interpreted as echo horn. The stopped notes are marked with the standard + symbol throughout, shown below in Figure 39. Though not marked as echo horn these calls are often softer than the open preceding notes so the effect is like an echo. This idea is seen more in the measure before D where the stopped notes are marked “distant.”<sup>103</sup> I am playing these stopped notes as fully stopped notes as quietly as the dynamic markings request, all with direct half-step down fingerings on the F side as discussed in the *Hand-Horn Technique* section of Chapter 2. Intonation is a concern with the pitched timpani but the range the horn is stopped in is not a problem range for intonation when stopped.

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<sup>101</sup> Macbride, David. *Elegy*. Norsk Musikforlag A/S, 2008-2009. Permission to use score samples granted by the composer April 8, 2016.

<sup>102</sup> Macbride *Elegy* cover notes.

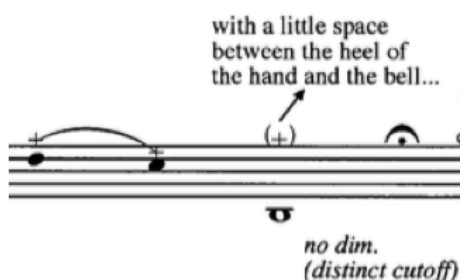
<sup>103</sup> Macbride *Elegy* score, 3.

Figure 39: Macbride *Elegy for Horn and Timpani*, page 1.



These distant stopped notes are followed by a stopped lower B $\flat$  before Rehearsal D as shown in Figure 40, marked to be played “with a little space between the heel of the hand and the bell” which is generally how echo horn is performed. I am performing this as echo horn so the fingering is the same as the written note. While the echo horn hand position generally causes the notes to lower in pitch, in this range stopped horn is often sharp in pitch. In my experience especially at the softer dynamic these two tendencies cancel each other out, and with a concert E sounding in the timpani I find there is no drastic intonation problem with this echo-horn note.

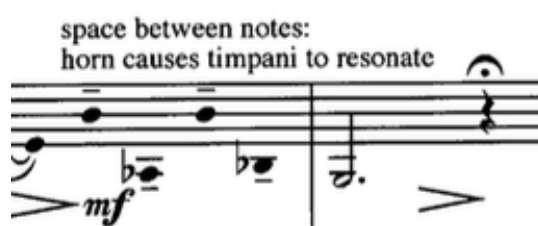
Figure 40: Macbride *Elegy for Horn and Timpani*, page 3.



The other effect in this piece is less of an actual extended technique but more of an aural technique. There are several places where the horn is directed to “cause the timpani to resonate” or “hear resonance” between their notes, as shown in Figure 41. The horn’s sound waves will cause sympathetic vibrations from many things, from piano

strings to large drums.<sup>104</sup> In this piece, Macbride uses the same idea, but with timpani. In *Elegy*, the horn is directed to pause between longer notes to allow the sympathetic vibrations to be heard. This is a very light effect and depends on the performance space and the performers. I am letting each note ring and giving more time between the applicable notes to ensure the effect is portrayed to the audience.

Figure 41: Macbride *Elegy for Horn and Timpani*, page 2.



<sup>104</sup> Bartholomew, 27.

### **Brian Precht, *A Song of David* (1995)<sup>105</sup>**

Brian Precht is a percussion player and composer with the Baltimore Symphony Orchestra. According to his performance notes, the horn player Gail Williams at Northwestern University commissioned this piece.

It was inspired by a passage of scripture from the book of Samuel 22:2-51...It was my hope, that the beauty and strength of those words may be echoed here. The three sections of the song that I set, are as follows:

- I.      The Lord is my rock, my fortress, and my deliverer  
           My God, my rock, in whom I take refuge  
           My shield and the horn of my salvation,  
           My stronghold and my refuge,  
           My savior;
  
- II.     In my distress I called upon the Lord:  
           To my God I called.  
           From His temple He heard my voice,  
           And my cry came to His ears.
  
- III.    Then the earth reeled and rocked;  
           The foundations of the heavens trembled  
           And quaked, because He was angry.

-Brian Precht<sup>106</sup>

This piece is a duet for horn and a single multi-percussion player. The percussionist primarily plays marimba but is also directed to use bass drum, 5 toms, 2 woodblocks, 2 cowbells, tambourine, and a cymbal. Instead of the woodblocks, my percussionist decided to use temple blocks because of the quality of the woodblocks available. There is no set up key provided for the percussion player so my percussionist had to experience with different setups to find one that allowed for all of the quick changes between drums and marimba in the third movement.

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<sup>105</sup> Precht, Brian. *A Song of David*. Self Published, 1995.

<sup>106</sup> Precht *A Song of David* cover notes.

Precht's piece uses very few different effects but they are used often. His primary effect is the glissando. There is only one in the first movement, shown in Figure 42, and it seems to set up a motive effect, which will be seen more in the third movement. This glissando is an octave jump B to high B. There are several different ways to perform the glissandi, as discussed in Chapter 2. As a valve glissandi the player can just hold either the Bb side fingering or the F side fingering and catch as many harmonics in between as possible, the F side producing more due to where these notes lay in the different harmonic series. The player could also roll the fingers down the valves in order to both catch harmonics and different distinct notes. Another option would be to half-valve a smoother glissando up to the top note. For this piece I personally prefer the Bb side glissando with a roll of the fingers because each of these effects are quick and at loud dynamics. The combined glissando helps maintain the volume and energy in each of these glissandi. Most of the glissandi are octave B's but there are a few other intervals used in the final movement. I am producing them all the same way.

**Figure 42: Precht *A Song of David* Movement I, mm 101.**



While not specifically an extended technique, Precht does write into the extreme high range in measure 246 in the third movement, pictured below in Figure 43. This extreme tessitura passage is often taken down in performance and I believe future

performers of this piece should learn both octaves and be comfortable playing either to switch in performance as they find they need. I am playing the written octave.

**Figure 43: Prechtl *A Song of David* Movement III, mm 246.**



There is a brief moment of stopped horn in the third movement where the horn takes on a more percussive effect and accents the compound rhythm set up throughout the 8/8 section, shown below in Figure 44. This passage has “stopped” written above the notes and a corresponding “open” written at the end of measure 295. Since this passage is loud I am performing the stopped horn notes with straight half step down F-side fingerings as discussed in the *Hand-Horn Technique* section of Chapter 2. The loud dynamic helps the intonation issue that would be a problem in the opening lower notes of this passage. I am also less concerned about sharp fingerings since I am playing with the marimba at this point, which is tuned to A442.

**Figure 44: Prechtl *A Song of David* Movement III, mm 285, 295-296.**



### Verne Reynolds, *HornVibes* (1986)<sup>107</sup>

Verne Reynolds was an equally successful American horn player, pedagogue, and composer. This duet was written as a dialogue for horn and vibraphone. This work features Reynolds' influence of jazz and chromaticism throughout.<sup>108</sup> The first and last movements are slower, lyrical, and marked freely and unmetered, while the middle movement is quicker and metered. The main challenge in this piece was the free notation in the first and third movement. Reynolds wrote these outer movements to be free improvisations.<sup>109</sup> My percussionist and I tried to put some sense of rhythm in our dialogue in these outer movements so that we could hopefully give more musical sense and direction for our audience. The second movement "Riffs" is stated to be played in "a relaxed jazz feeling" and my percussionist and I decided to swing the sixteenth notes in this movement, despite the lack of marking to do so, to both contrast the amorphous feeling of the outer movements and to make the second movement feel even more jazz-like. This piece has a dedication to the famous horn and percussion duo-couple Christopher and Leslie Norton, whose commissions for their ensemble were featured a few times in this project. *HornVibes* was actually a wedding gift to the couple, since Leslie was Reynolds' horn student.<sup>110</sup>

The only extended technique in this piece is the horn's stopped notes, followed by a hand bend up to the open note in the third movement pictured below in Figure 45. This effect I am producing by fingering the stopped C# on the F side 0, and in the bend opening up my hand in the bell but I am not changing my fingering on the D. This written

<sup>107</sup> Reynolds, Verne. *HornVibes*. Alfred Music, 1986. Out of Print.

<sup>108</sup> Maltese, 31.

<sup>109</sup> Reynolds, *HornVibes* cover notes.

<sup>110</sup> Maltese, 31.

D can also be fingered on the F side open as I am doing, but it is not the usual accepted fingering because of its intonation and stability. A performer could try to bend the pitch up from the stopped C# to a normal fingering of D on the Bb side 1+2, but I believe this makes the bend bumpy and loses the smooth, slide-like effect. I am using fully stopped horn since an upward bend is performed from the stopped to open motion, as discussed in the *Hand-Horn Technique* section of Chapter 2.

**Figure 45: Reynolds *HornVibes* Movement III, page 10.**





### **Pablo Salazar, *Cincontar* (2016)<sup>111</sup>**

The wind quintet I have helped create and work in regularly, Potomac Winds, has participated in several Music + Film events at the University of Maryland-College Park campus, at which student musicians create their own music to pair with renovated silent films. At each of the events, I particularly enjoyed Salazar's compositions for his separate films and approached him for a commission for my project. He accepted and this piece is the result. This is a quartet for four players: horn, xylophone, marimba, and a mixed player using bongos and congas. In a personal correspondence, the composer gave me the following performance notes about this work:

*Cincontar* is a play on words in Spanish, "Cinco" meaning five, and "Sin Contar" meaning without counting. The piece was written with ascending blocks of diminished chords that resolve at the very end. The piece has influences from the tropical regions of Bolivia, imitating a brass band during the Carnival season. The piece shows how flexible the horn can be, in the sense that in some sections it sounds like it belongs in the woodwind families and others it has the texture of a brass instrument.

-Pablo Salazar

For this work there is a main theme which recurs often and involves extended techniques. The opening sustained notes of this theme involve flutter-tongue, shown below in Figure 46. Salazar notates this effect with triple slashes through the note stems and "flt" written above the various passages. The challenge with this effect here is that flutter-tongue forces the player to push more air out to achieve the effect, often causing a crescendo. Because the flutter-tongue is part of a theme I am aiming to not overly crescendo unless marked. I am performing a slight crescendo in the theme flutter-tongue sections to give some shape to the melodic line.

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<sup>111</sup> Salazar, Pablo. *Cincontar*. Self Published, 2016.

Figure 46: Salazar *Cincontar*, mm 5.

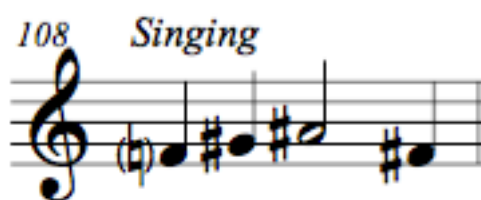
The end of the main theme includes stopped horn notes, shown below in Figure 47. Salazar marks all of his stopped horn passages with the usual “+” sign and the open notes have the “o” marked above. As discussed in the *Hand-Horn Technique* section of Chapter 2, I am performing these with direct half-step down fingerings on the F side of the horn.

Figure 47: Salazar *Cincontar*, mm 8.

There is an extensive passage for muted horn, but as discussed in the introduction, mute usage was not considered an extended technique for this project.

The piece ends with the horn player directed to sing and play the final melodic passage, shown below in Figure 48. The notation has since been edited in the final parts, but at the time of this paper the music was written as shown. This is a multi-phonic section in which I play an octave lower than written and hum the written line. Since Salazar was able to consult me throughout the entire writing process, this passage is in a very comfortable range for me to sing.

Figure 48: Salazar *Cincontar*, mm 108.



### Mark Schultz, *Dragons in the Sky* (1989)<sup>112</sup>

Mark Schultz was a composer who wrote several works inspired by *The Silmarillion*, by J.R.R. Tolkien.<sup>113</sup> *Dragons in the Sky* won First Prize from the International Horn Society in 1990<sup>114</sup> and is possibly the most well known piece I used for this project among fellow horn players. This is the second time I have performed this piece at the University of Maryland and in a personal correspondence with the composer before his recent death, I learned that Robert Schroyer and I gave the Maryland premiere in 2014. Schultz was very enthusiastic to hear about that former performance and I can only hope would have been thrilled to know of his work's inclusion in this project.

This work is a trio for horn, a single mixed percussion player, and tape. The percussionist plays vibraphone, marimba, 3 tubular bells, crotales, 3 cymbals, xylophone, 3 timpani, bass drum, 2 timbales, maracas, and a brake drum. In both performances my percussionist reduced the number of cymbals used from 3 to 2. Schultz includes a setup suggestion for the percussion player in the score cover, though we discovered a better setup for our initial performance in 2014, which we used again in this performance.

In this work there are many extended techniques. Schultz often goes between open and stopped notes, first heard in the first two measures of the piece shown below in Figure 49. Most of these stopped to open areas occur so quickly that, despite the necessary fortissimo dynamic which would be aided by the use of a stop mute (also called brass mute), there is often no time for the horn player to change to the mute. I performed most of the stopped portions like the opening passage with direct half step

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<sup>112</sup> Schultz, Mark. *Dragons in the Sky* for horn, percussion, and tape. Self Published-Jomar Press, 1989. Permission to use score samples granted by the publishers April 7, 2016.

<sup>113</sup> *Dragons in the Sky* CD liner notes.

<sup>114</sup> Ibid.

down fingerings on the F side of the horn as discussed above in the *Hand-Horn Technique* section of Chapter 2. Pitch was a concern with the mallet percussion when it was used since they are tuned to A442 but the CD pitch was closer to A440 so I chose fingerings to be more in tune with the tape.

Figure 49: Schultz *Dragons in the Sky*, page 1.



There is an extensive repeated stopped passage on pages 8 to 9, the main phrase of which is shown in Figure 50, which is directed to be performed with a brass mute. I performed this passage with the fingerings marked in the picture below to aid the intonation and projection. For this passage and other passages below requiring the use of a brass mute I am actually using a wooden stop mute model built by Woodstop®. I chose this wooden mute over an actual brass stop mute because my percussionist and I decided we preferred the tone quality from the Woodstop® stop mute.

Figure 50: Schultz *Dragons in the Sky*, page 8.



The horn has several sections of bends in either direction between open to stopped half steps. In each of the recurrences, I performed the bend and the stopped notes with the

open note's fingering in more of an echo horn technique. In some passages because I would be articulating the following repeated stopped notes, to bring out the stopped note I would then change to the actual stopped fingering of that note. These fingering changes are marked in Figure 51. This effect is also done in reverse as “jazz scoops” from stopped notes below the notes to the open notes, shown below in Figure 52. In both “jazz scoop” sections I choose to consider the echo as a grace note before the beat and the open notes were on the beat. In both cases I choose this option because I wanted the open note to be timed with the tape or percussion part, but these scoops could have been performed as grace notes on the beat.

Figure 51: Schultz *Dragons in the Sky*, page 3.

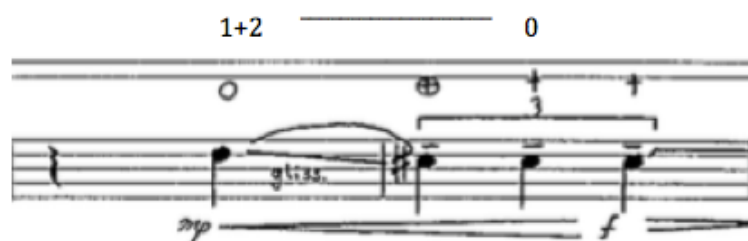


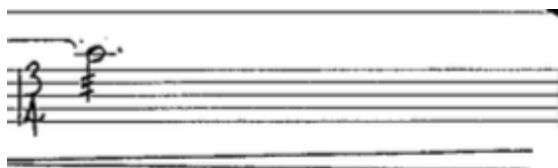
Figure 52: Schultz *Dragons in the Sky*, page 6.



Another common effect is the use of flutter-tongue on long sustained notes. In this piece triple lines through the note stem notate the effect, shown below in Figure 53. Most of the flutter-tongued spots are not problematic but there are some written high A's like

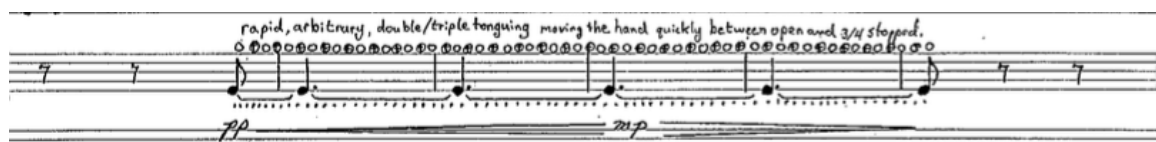
that shown in Figure 53, which can be somewhat difficult due to the nature of producing the effect, as discussed in Chapter 2.

Figure 53: Schultz *Dragons in the Sky*, page 19.



Schultz has two different effects in this piece I consider a form of tremolo effect, even though they are not labeled as such. The first is shown below in Figure 54, where Schultz informs the horn player to play the sustained note with “rapid, arbitrary, double/triple tonguing moving the hand quickly between the open and  $\frac{3}{4}$  stopped position.”<sup>115</sup> I am double tonguing throughout the held note and moving my hand positions at a pace somewhere between the 8<sup>th</sup> and quarter note pace in time, mostly to help myself keep a sense of pulse in this section. This tongued tremolo occurs twice on different pitches.

Figure 54: Schultz *Dragons in the Sky*, page 6.

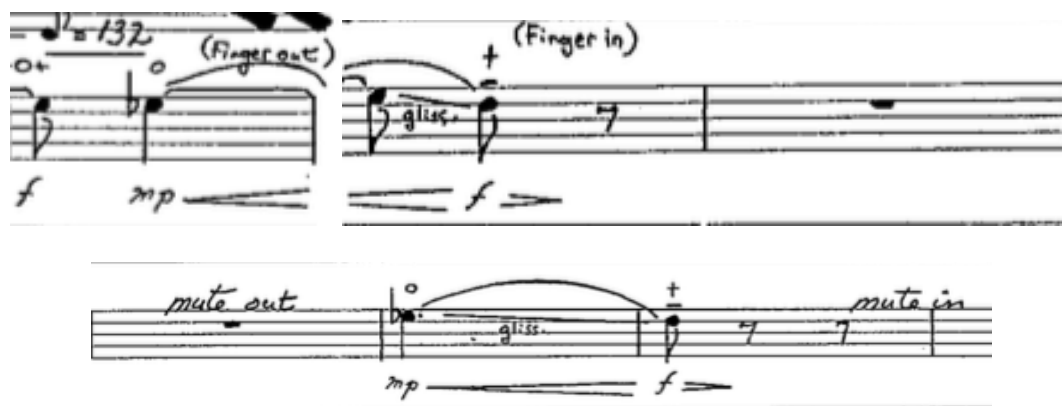


The second tremolo effect is shown below in Figure 55. Here the horn player is directed to sustain the note with a brass mute and produce “rapid, arbitrary, alternation of the finger in (+) and out (o) of the mute bell to produce a “wah-wah.” This wah-wah effect is similar to the stopped-echo bends but starts from the nasally stopped tone and bends to a very soft tone since the tone is completely covered with the combined stop

<sup>115</sup> Schultz *Dragons in the Sky* score, 6.





Figure 56: Schultz *Dragons in the Sky*, page 7.

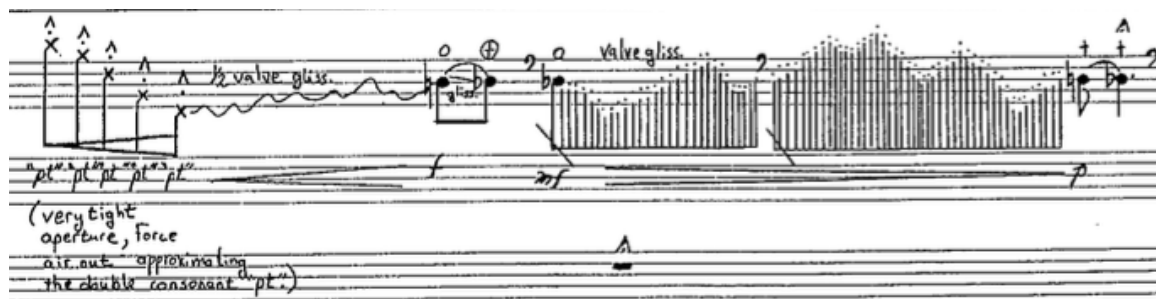
The second longer cadenza in this piece on page 13 features many stopped to open notes, all performed as discussed above. The more unusual technique in this cadenza is the use of half-valving at the end, shown below in Figure 57. This passage begins with high random open pitches marked with X note-heads, which descend while accelerating rhythmically to a random lower note, which is then half-valved with a glissando up to an open B $\natural$ , which is then bent to the stopped Bb. The performer's notes direct the horn player to use a "very tight aperture, force air out approximating the double consonant 'pt,'"<sup>116</sup> for which I aimed for very short accented notes. The next aspect of the cadenza is an articulated valve glissando, which starts with an open Bb and ends in two stopped notes, B $\natural$  to Bb. I decided the dots seen in this section meant articulated half-valve glissando since that was how the piece's dedicatee, Thomas Bacon, performed it on his CD *Dragons in the Sky*.<sup>117</sup> Other interpretations are that this passage are a longer unarticulated valve glissando but because of the difference in writing styles between this and the previous glissando I decided the two were slurred and articulated. I also choose to

<sup>116</sup> Schultz *Dragons...* score, 13.

<sup>117</sup> *Dragons in the Sky*, CD.

perform them both as half-valve glissando, despite the second not labeled “half-valve,” again because that is how I believe Thomas Bacon performed it.

Figure 57: Schultz *Dragons in the Sky*, page 13.



There is only one regularly notated glissando, shown below in Figure 58. It is notated with both a jagged slanted line and the direction “rip,” which is another way glissandos are written for horn in addition to those discussed in Chapter 2. These octave C’s were performed on the Bb side of the horn but I rolled my fingers along the keys to add more notes to the glissando. The glissando could have also been performed on the F side for more harmonics to get caught in the glissando.

Figure 58: Schultz *Dragons in the Sky*, page 17.



### **Faye-Ellen Silverman, *Protected Sleep* (2006)<sup>118</sup>**

Dr. Faye-Ellen Silverman is a composer based in New York and teaches at the Mannes School of Music. *Protected Sleep* was written for her colleague, David Jolley, at his request “for a piece for horn and percussion based on a Jewish theme.”<sup>119</sup> According to the composer in a personal correspondence, it is written specifically for his technical ability and sound. This duet for horn and marimba is based on the melody of an old Sephardic lullaby “Durme, Durme,”<sup>120</sup> and the following text appears in the score for performance notes:

DURME DURME

(Ladino)  
 Durme, Durme  
 mi alma donzella  
 (or hermoza donzella)  
 durme, durme  
 sin ansia y dolor  
 durme, durme  
 sin ansia y dolor

SLEEP SLEEP

Sleep Sleep  
 My beloved damsel  
 (or beautiful child)  
 Sleep, sleep  
 Without anxiety or pain  
 Sleep, sleep  
 Without anxiety or pain

- Traditional Sephardic song<sup>121</sup>

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<sup>118</sup> Silverman, Faye-Ellen. *Protected Sleep* for horn and marimba. Seesaw Music, 2006. Permission to use score samples requested April 11, 2016.

<sup>119</sup> *Manhattan Stories* CD liner notes.

<sup>120</sup> Ibid.

<sup>121</sup> Silverman *Protected Sleep* cover notes.

Dr. Silverman uses many extended techniques in this piece. *Protected Sleep* requires a lot of hand horn technique, mostly in the form of soft stopped horn providing an echo effect. Pictured below in Figure 59 is the opening call and echo, in which you see part of the main melody presented, and then repeated pianissimo and stopped. Dr. Silverman uses the “+” symbol to notate the stopped horn throughout. The challenge in most of the stopped horn in this piece is the range and the dynamic level. As mentioned in the *Hand-Horn Techniques* section of Chapter 2, this range can be slightly more difficult to tune and is easier when played loud since the air stream supports the note more. The notes will generally err on the sharp side in this range, so this problem actually helps the horn play in tune with the Marimba, which is tuned to A442. I was able to play all of the stopped notes with fingerings that were exactly half steps down from the written notes on the F horn. This use of open/call and stopped/echo, though never labeled echo horn to be specific, is a common motive throughout the opening of the piece.

Figure 59: Silverman *Protected Sleep*, mm 1-8.



The next effects combine together in a really neat way. There is a brief passage of several glissandi down into the horns extreme pedal register, which I consider a type of extended technique since the pedal register is very rarely written for because of its difficulty. This passage is shown in Figure 60. The glissando is written with a jagged slanted line. Silverman uses “new-notation” bass clef, in which the horn notes are the octaves written instead of “old-notation” bass clef, in which the notes are written an

octave lower than performed.<sup>122</sup> For this effect, I found it easier to roll the fingers down the valves to produce more of a valve-glissando, in which case you hear various pitches as I descend. I was advised to try bending the notes by the use of a half-valving technique. The bended half-valve glissando instead produces a smooth glissando but I found it a lot harder to execute the pedal note I was aiming for after this half-valve glissando. I believe both options are viable to the next performer, and because of the difficulty of those pedal notes the performer should do whichever is more comfortable, the glissando effect will be heard regardless.

**Figure 60: Silverman *Protected Sleep*, mm 58-61.**



There are other occurrences of glissandi later in *Protected Sleep*. They are notated with the jagged slanted line between the notes and are in a range where any combination of glissando types would work, as discussed in Chapter 2. I used a valve finger-roll to achieve these glissandi.

Silverman adds trills to various phrases, all of which are half step valve trills. The first shown in Figure 61 is a trill from D# up to Eb. This trill was executed by fingering on the F side 2 to 0, which includes both the normal fingerings of those notes. Another fingering option could have been Bb side 2 to 1, which is very awkward since two fingers have to move in alternation. In all trills discussed here for this piece, I begin the trills at high speed immediately to heighten the drama of the various sections in the music and

<sup>122</sup> Farkas, 14.

maintained the speed to the end of the notes. I also feel that playing all of the trills the same way draws a connection to their ascent both in pitch and dynamic. This first trill, since there is a decrescendo in it, may have been more dramatic with a deceleration, but I chose to stay full speed.

Figure 61: Silverman *Protected Sleep*, mm 84.



In Figure 62 shown below, Silverman writes a trill from high F# to Gb. This second trill was fingered on the Bb side 2 to 0. This trill could have also been performed as a lip trill on the open F side. The harmonics are close enough in this register either option is viable, I am using a valve trill since I find it more easy to play loud to finish this passage and contrast the following softer section. This second trill, with a crescendo, could have started slower and accelerated with the crescendo, but as stated above I chose to maintain a fast trill throughout the note.

Figure 62: Silverman *Protected Sleep*, mm 93.



The final trill shown in Figure 63 is on a high B up to a C $\sharp$ . This one I fingered on the B $\flat$  side 2 to open as well. This trill may have also been performed as a lip trill on the open F side but I found I could play this particular trill louder as a finger trill. The final trill could have started slower and accelerated with an unwritten crescendo but since this is the last loud moment in the piece I chose to also maintain speed like in the previous trills.

**Figure 63: Silverman *Protected Sleep*, mm 158.**



Silverman uses the extreme pedal range again in this piece but without the written glissando as discussed above. This is shown in Figure 64, in which the horn player drops octaves down to the lowest pedal notes of the piece. I found the pedal E $\flat$  inconsistent to start on but found that so long as I started from somewhere above it, the pedal D would come out when I slurred down to it. So to reach the pedal notes I found I could play a grace note F $\sharp$  above the E $\flat$  into that motive E $\flat$  to D and be much more consistent with the pedal notes. Other players with stronger low ranges may have no problems with this passage as is, but this option helps those with inconsistent pedal ranges and the grace note is not obtrusive to the music. I also ignored the dynamic markings and aimed for just getting the pedal notes to speak at a comfortable dynamic. Lower notes tend to sound

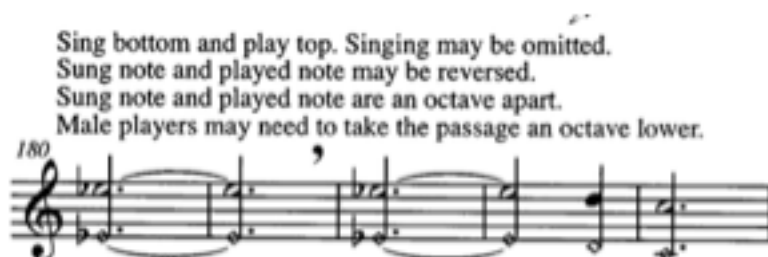
softer than those above and so I relied on this acoustical property for the overall diminuendo effect.

Figure 64: Silverman *Protected Sleep*, mm 169-170.



The final effect in this piece required some thinking. The last 9 bars of the piece shown below in Figure 65 feature the horn performing multi-phonics. Silverman wrote performance notes, which are included in the picture below. I found I could not physically perform the multi-phonics as written, playing the high Eb and singing the lower Eb, a problem discussed fully in the *Multi-Phonics* section of Chapter 2. I could easily do the reverse in this range but it did not have the usual effect with multi-phonics with extra resultant tones. Instead I chose to follow the bottom three lines of the performance notes: I reversed the octaves and took the entire passage down an octave. In personal correspondence with the composer, Dr. Silverman states that David Jolley chose to not perform the multi-phonics, since they are optional.

Figure 65: Silverman *Protected Sleep*, mm 180-184.





### Charles Taylor, *Sonata for Horn and Marimba* (1986)<sup>123</sup>

Christopher and Leslie Norton, a horn and percussion duo based at Vanderbilt University are responsible for commissioning many of the pieces featured in this project. This *Sonata* was commissioned in 1986 and is possibly the most significant work for the horn and marimba duo based on the technical difficulties of both instrumental parts. Charles Taylor studied with Joseph Schwantner, Warren Benson, and Samuel Adler and is based in Rochester, NY.<sup>124</sup>

This piece features only brief passages of stopped horn techniques but they are used in significant ways. This first moment is shown in Figure 66 and is in the first movement. This passage is an echo of the end of the phrase in the previous measures, though the notation does not specify, “echo horn,” as can be seen below in the picture. Taylor uses the “+” symbol for all of his stopped horn passages and follows them with the “o” symbol for open. I fingered this passage as direct half step down fingerings on the F side as discussed in the *Hand-Horn Techniques* section of Chapter 2. Despite the marimba being tuned to A442 because of the range of these notes and their brevity there was not much of an intonation issue since they were easy to fix with just the lips and ear.

Figure 66: Taylor *Sonata for Horn and Marimba* Movement 1, mm 69.



<sup>123</sup> Taylor, Charles. *Sonata for Horn and Marimba*. C. Allen, 1991.

<sup>124</sup> Taylor *Sonata* cover notes.

The other passage of stopped horn technique occurs in the middle of the Third Movement and a selection of which is shown below in Figure 67. In the first section of this passage the stopped note is like a traditional horn call or percussive effect because it is very rhythmic and it more of a background effect to the melody in the marimba. It creates a rhythmic dialogue between the two voices. I fingered each of these as direct half step down fingerings on the F side.

**Figure 67: Taylor *Sonata for Horn and Marimba* Movement III, mm 90.**



Figure 68 below shows the only quick stopped to open moment in the whole piece, but since Taylor did not specify a glissando down the half step I try not to have a glissando come out in the sound too much. Because the transition is slurred a little lump in the sound cannot be helped, but future performers should aim for as quick a transition as they can physically do. The fingering remains the same on that written stopped E $\flat$  to the Eb, F side 2.

**Figure 68: Taylor *Sonata for Horn and Marimba* Movement III, mm 106-107.**



### **Robert Wolk, *Tessellations* (2016)<sup>125</sup>**

When I contacted a fellow UMD student, I was immediately referred instead to several other composers, in particular Robert Wolk, for their preference for using extended techniques in their writing. Wolk was enthusiastic in our initial conversation and referenced a piece he had already been working on for horn and marimba. As my deadline for parts came closer, he instead decided to re-work a recently finished trumpet solo entitled *Mosaic* (2016) featuring extended techniques, into a version for horn and two marimbas. *Mosaic* features several techniques for trumpet that were easily transcribed for horn, and some other techniques, which had to be re-written. These will be discussed below.

The original work, *Mosaic*, is part of a collection of solo pieces for various instruments which feature different aspects of music. For instance, the flute solo features melody while the percussion solo features rhythm. The original trumpet solo features noise. While transcribing this piece for horn, we were able to collaborate to bring out this original inspiration in ways unique to valved brass and horns in particular.

This work features many diverse effects. In all but one section, which will be discussed below, the actual notated pitches are extremely free. Where the notes in this piece do not have any particular extra effect, I believe the next performer can select their own pitches in whatever range they are comfortable in. For instance, in a few passages Wolk specifically writes for the horn to play “as high as possible” and told me in personal correspondence that even if I fell off the note that was part of the effect. Since there is no specific note requested, future performers should push themselves as they see fit. In some

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<sup>125</sup> Wolk, Robert. *Tessellations*. Self Published, 2016. Permission to use score samples granted by composer April 12, 2016.

places there are notes for the horn player to use “puckered embouchures” or keep their lips “tucked in.”<sup>126</sup> Because this piece is about noise, I believe these performance notes are permission to the horn players to just make noises in the general range they are aiming for and not worry about the actual tone of the pitches played except where actually marked to do so.

This piece is also fairly free metronomically, and performers should never feel hurried to transition from one effect to another despite the back-to-back effects that require some amount of set-up time. I was advised that there was relative time for each effect and the larger phrases marked should be performed in one breath as much as possible. I believe there is an amount of stage presence and acting that goes along with conceptual pieces such as this so that the audience remains engaged in the performance. Future performers should take into consideration the overall effect of the performance more so than just the notes on the page.

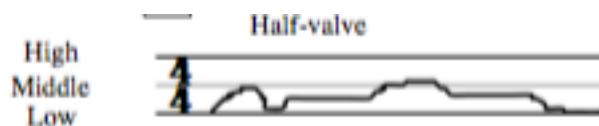
The beginning and end involve half-valved glissandi throughout the range of the horn, shown below in Figure 69. In personal discussions with the composer, the range given on the side is as wide as the player feels comfortable. This is a very free section. I have all the valves half depressed throughout these passages. I use both straight tones and trilled tones like those found in Messiaen’s “Appel interstellaire,”<sup>127</sup> as discussed above in the *Valved Effects* section Chapter 2.

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<sup>126</sup> Wolk *Tessellations* performance notes.

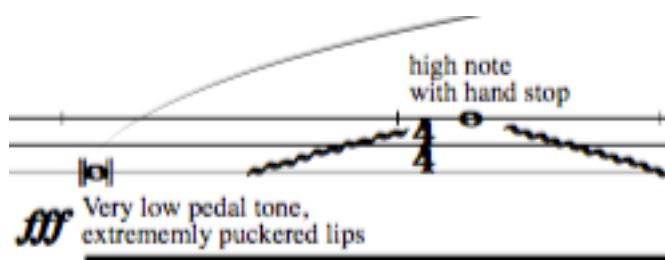
<sup>127</sup> Messiaen, VI, “Appel interstellaire.” 155-159.

Figure 69: Wolk *Tessellations*, mm 1.



The half-valve glissando contrasts the glissando found in Figure 70. The glissando shown below is with the more common jagged slanted line between the two notes. Because I want to contrast this glissando below with the half-valve glissandi discussed above, I play this glissando as a combination harmonic and valved glissando to catch as many actual pitches as possible. This glissando goes up to an unspecified stopped high note. Because pitch is not a concern I use the F side of the horn to catch more notes in the glissandi and then perform the stopped horn on the open Bb side. I choose the Bb side for the top note to make it easier to play higher. I am aiming for around the high C above the treble staff since here is labeled as just a “high note” and not “as high as possible” as seen elsewhere in this movement.

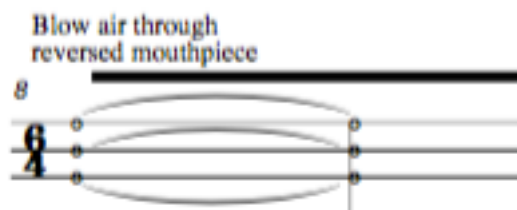
Figure 70: Wolk *Tessellations*, mm 28-29.



The next effect shown in Figure 71 I actually introduced him to. The original direction was simply directing the player to blow air through the horn. In other modern pieces I have performed or heard, players are directed to remove the mouthpiece and blow through the shank while the cup of the mouthpiece is angled over the lead-pipe.

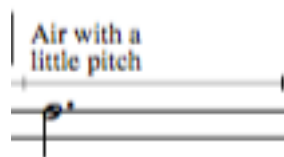
This causes a much louder rush of sound through the instrument and was Wolk's preferred effect for these passages.

**Figure 71: Wolk *Tessellations*, mm 8.**



In between some of these reversed mouthpiece sections, the horn player is directed to get “air with a little pitch,” as shown below in Figure 72. For this section I was directed to buzz on my mouthpiece. Because the description is air with a little pitch, I aim for a very low-pitched airy buzz in which I do not try to close the embouchure and focus the aperture of the lips. Essentially, a horrible buzz a performer would never use to produce a good tone on the horn.

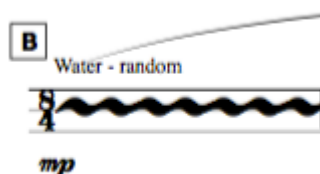
**Figure 72: Wolk *Tessellations*, mm 12.**



There are two occurrences of the water effect, shown below in Figure 73. This effect is not horn related but is instead just a general sound. Wolk informs the performer to blow air through a straw into a cup of water to get the splashing noises. Depending on the hall used, the performer may need to have a microphone for this effect to be heard. In one water section the player is directed to blow a straight “note,” so I am aiming for a

moderate amount of continuous splashing. The other occurrence is “random,” so I allow variation in air speed for different amounts of splashing sounds. I was directed to use a tall glass and so choose to use a hurricane souvenir glass from Pat O’Briens, New Orleans, Louisiana and a long bendy straw.

**Figure 73: Wolk *Tessellations*, mm 17.**



The next effect shown below in Figure 74 is another air-through the mouthpiece effect, but now is just through the mouthpiece while it is not attached to the horn. This effect is another soft effect that future horn players may find requires the need of a microphone.

**Figure 74: Wolk *Tessellations*, mm 18.**

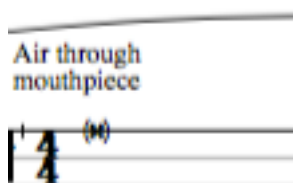
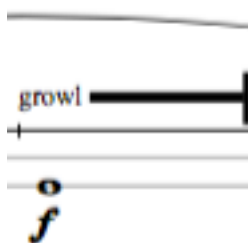


Figure 75 shows the “growl” marking, which is another way composers write for the flutter-tongue effect, as discussed in Chapter 2. In this case, the note should be a low note and fairly loud, so will already sound a bit like a growl but the added flutter-tongue will make the growl more present. I am aiming around our low C since this register will speak clearly with the flutter-tongue. Flutter-tongue recurs elsewhere in this piece but is

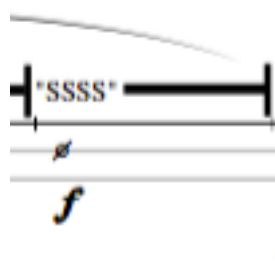
noted there with the direction “flutter-tongue” and triple slashes above the note. The recurrence is requested in the middle range, which possibly explains the different notation.

**Figure 75: Wolk *Tessellations*, mm 19.**



Making a hissing noise through the horn without any pitch produces the “SSSS” effect, shown below in Figure 76. The important thing for the horn player is to not close their lips since we can produce sound even through closed teeth - the tone is just extremely poor. I set my lower lip outside the mouthpiece rim to help prevent myself from making an actual pitch at this moment.

**Figure 76: Wolk *Tessellations*, mm 20.**



Trills are often associated with high horn from the trill's roots in lip trills requiring them to be neighboring whole step harmonics in the upper register of the horn, as discussed in the *Hand-Horn Technique* section of Chapter 2. Low trills were therefore not possible until the valved horn was invented and are still a rare occurrence in the



repertoire. I believe this is because horn players are reluctant to perform them since there is often only one fingering option for them. Wolk writes for a low half-step trill, shown in Figure 77. I am again aiming around low C. Future horn players should experiment with which pitches they want to trill on. The dynamic for the trill is fairly soft and does not crescendo so future performers should pick notes that they do not have to play too loud to maintain the trill in this lower register.

**Figure 77: Wolk *Tessellations*, mm 21.**

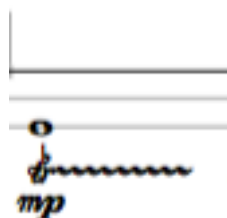
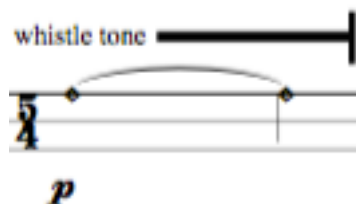
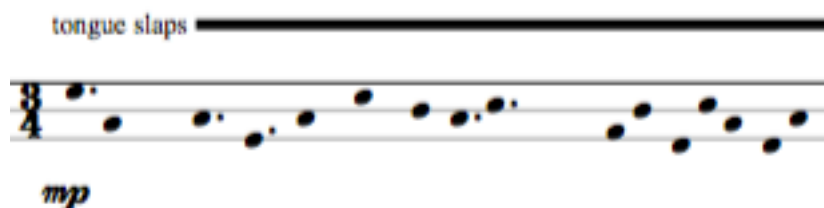


Figure 78 shows the only instance of whistle tone, or vented horn, in this piece. In personal discussions with the composer, the whistle tone here is with the removal of a slide and playing an undetermined high note in the extreme high register. I wanted to get a note as high as possible and so choose to remove my main tuning slide so I am playing the shortest pipe available and aim for something above the treble staff. Another option is to remove just the F slide or some valve-slide and still aiming for a high note, the effect will be the same, it is more whichever slide removal the performer is most comfortable playing without. Since this effect happens quickly I suggest the main slide since it is generally the quickest to remove and reinsert.

Figure 78: Wolk *Tessellations*, mm 23.

Tongue slaps are produced when the note is started and stopped abruptly with the tongue.<sup>128</sup> They produce a very stuttered effect with an abrupt cut-off. This contrasts the usual smooth cut-off of a note by which the performer either lets the air-stream slow gracefully so their lips stop vibrating or the player breathes in to stop the lip vibrations. Tongue slap technique, shown below in Figure 79, is extremely rare in horn notation but is fairly easy to achieve for players with strong articulations. I found it helpful to make sure I did not try to connect the notes, and am instead trying to play the notes extremely short and disconnected.

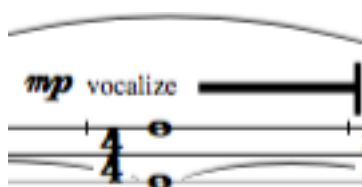
Figure 79: Wolk *Tessellations*, mm 24.

There are two sections of multi-phonics in this piece, one of which transferred easily from the original trumpet part; the other section required some re-evaluation for both Wolk and myself. The first multi-phonetic note is shown below in Figure 80. This is in the middle of the piece and grows from the only true note, which Wolk asks to be played well and with good tone. I choose to play around a low G below the treble clef so

<sup>128</sup> Hill *Extended Techniques*, 29.

that I could sing a fifth higher comfortably for the vocalization. Since this is supposed to be a significant moment where the horn player is playing with a good tone and adds the vocalization on top, I want to aim for a pair of notes that are both easy to produce with good tone

**Figure 80: Wolk *Tessellations*, mm 26.**



The second section shown in Figure 81 is the larger section of multi-phonics, which is the only effect that did not transfer easily from the original trumpet part. In this section the trumpet was to play the fingering of the lower note, and play the upper note and for part of the section there were multi-phonics being produced. I was very unsure of how to approach this section. I have heard of colleagues who can produce multi-phonics on their horn models with certain half-valved notes but my horn is not one of those models. My initial plan was to play the section in octaves where I could play the lower notes and hum the upper note throughout. However, as discussed in the *Multi-phonics* section of Chapter 2, multi-phonics themselves are quite taxing on the horn players embouchures and dissonant multi-phonics are extremely difficult and can be very damaging over a long period of music from the conflicting buzz occurring on the horn players lips. I worked with the composer to find a way to make this section still a powerful moment in the music and to prevent future horn players any embouchure damage. For this section I choose to begin with low single notes, so I am playing the written pitch two octaves below. I play single notes throughout the first entrance of the

forte marimbas. When the marimbas cut off, I added multi-phonics where I was singing the 5<sup>th</sup> an octave and a 5<sup>th</sup> above the played pedal note. I choose this consonant interval in hopes of producing more resultant tones, and therefore more noise. In the final bars of this section I play the multi-phonics as loud as possible to make a raucous noisy close to this section.

**Figure 81: Wolk *Tessellations*, mm 34. (Original Trumpet in Bb)**



## Conclusion

The horn and percussion repertoire has a very broad range on both the ensemble potential and the technical demands of the horn player. For this project, most of the repertoire was relatively unknown to both my teachers and my colleagues and so I have exposed many horn players to these wonderful works and modern composers. Most of the techniques involved in this project stem from classical techniques, and this project proves that a solid foundation in the classical techniques, specifically hand horn technique and multi-phonics, opens up a broad range of performance potential for all horn players. Most modern composers enjoy writing extended techniques and consider them more than the “non-musical effects”<sup>129</sup> they are often referred to. After my experience with commissions for this genre, I strongly believe the only limit to the potential sound of the horn is those horn players with a closed mind. With my detailed approach to the various techniques, I hope future horn players will approach these pieces and the techniques used in them with an open mind and perform them with courage and enthusiasm, and possibly even find new effects for their own composition colleagues to use.

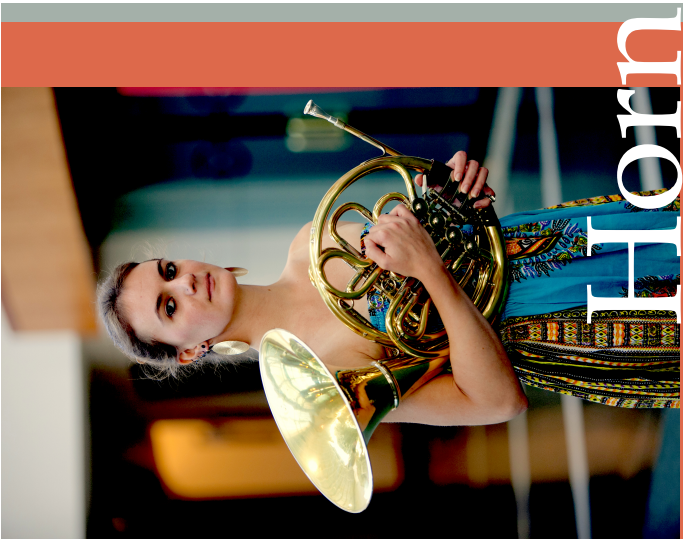
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<sup>129</sup> Tuckwell, 118.

## **Appendix A: Programs as Used in Recitals**

Attached below are the actual programs used from my performances, created entirely by me. The notes are quotes from the composers and discussed above in connection to the cover notes of the respective pieces. If there is no citation, the note is created by me. The programs were all in many colors and included a color-page for fun, which cannot be included here for copyright. The picture found on every cover is my personal headshot courtesy of the photographer, Reyna.

Recital No. 1: The Foundation



**Horn**

Avery Pettigrew Presents:

**The Foundation**

5pm Sunday November 15, 2015  
Gildenhorn Recital Hall

DMA Project Description

My dissertation titled “What’s the Matter with Extended Techniques? Getting Beyond the Stigma in the Horn and Percussion Repertoire” is working to promote the various unusual sounds a horn can make, specifically within the horn and percussion repertoire. This recital is focusing on the foundational, meaning most generally known and performed, works in this genre.

Extended Techniques Used:

- Flutter tongue
- Half-valve (held tones, bends, articulated)
- Hand Mute (Stopped,  $\frac{3}{4}$  stopped, echo, quick alternation)
- Multi-phonics
- Note Bend (hand, lips, valves)
- Open harmonics (Natural horn, glissandi)
- Smooth glissandi via cloth “mute”
- Stopped mute flutter
- Straight Mute

Thanks to:

Thank you to all the guys up on stage with me! A special thanks to Jon Clancy for operating the tape parts as well. Thank you to my teachers, Greg Miller and Phil Munds, as well as Lee Hinkle for his guidance in the past on some of these works and for contributing to my repertoire choices. And special thanks always to my family, this time for helping bake snacks for my reception (in the Café area).

Select Upcoming Solo Appearances

- 7pm Dec 8, 2015: Potomac Wind Quintet
- 8pm Feb 6, 2016: Brahms Horn Trio
- 8pm Feb 13, 2016: DMA Recital No. 2
- 7:30pm Feb 27, 2016: Weber Concertino with Washington Sinfonietta
- 8pm April 9, 2016: DMA Recital No. 3

## Program

### Dragons in the Sky **Mark Schultz (1957-2015)**

Featuring Robert Schroyer

### HornVibes **Verne Reynolds (1926-2011)**

- I. Fantasy
- II. Riffs
- III. Elegy

Featuring Jon Clancy

### **\*\*Intermission\*\***

### Thoughtful Wanderings **Douglas Hill (1946-)**

- I. Eagle at Ease in the Sky
- II. Six-Legged Dance
- III. Woodland Trail
- IV. Spring Dance

Featuring Brad Davis

### **An Idyll for the Misbegotten** **George Crumb (1929-)**

Featuring Brad Davis, Chris Herman, and Robert Schroyer

## Notes

because of its limitations to “nature’s scale,” and for the closeness of that set of pitches to the scale of the traditional six-holed Indian flute. The horn’s powerful sound and articulated energy can also easily become one with the dance rhythms and “drums” of the ceremony.

Titles for these pieces were chosen while being composed rather than before, thus describing where this music was carrying me.

-Douglas Hill

### **An Idyll for the Misbegotten** **1985/1997**

I feel that “misbegotten” well describes the fateful and melancholy predicament of the species *homo sapiens* at the present moment in time. Mankind has become ever more “illegitimate” in the natural world of the plants and animals. The ancient sense of brotherhood with all life-forms (so poignantly expressed in the poetry of St. Francis of Assisi) has gradually and relentlessly eroded, and consequently we find ourselves monarchs of a dying world. We share the fervent hope that humankind will embrace anew nature’s ‘moral imperative.’ ...

I have suggested that ideally (even if impractically) my *Idyll* should be “heard from afar, over a lake, on a moonlit evening in August.”

*An Idyll for the Misbegotten* evokes the haunting theme of Claude Debussy’s *Syrinx* (for solo flute, 1912). There is also a short quotation from the eighth century Chinese poet Ssu-K’ung Shu:

“The moon goes down. There are shivering birds and withering grasses.”

-George Crumb

Originally for amplified flute, Robert Patterson, a virtuoso horn player and composition student of Crumb, transcribed this work for horn. Upon hearing the transcription, Crumb wrote, “the horn, with its enormous evocative power, creates an effect at the same time more intense and primitive than the flute is capable of.”



## Notes

### Dragons in the Sky

1991

Then, seeing that his hosts were overthrown and his power dispersed, Morgoth quailed, and he dared not to come forth himself. But he loosed upon his foes the last desperate assault that he had prepared, and out of the pits of Angband there issued the winged dragons, that had not before been seen; and so sudden and ruinous was the onset of that dreadful fleet that the host of the Valar was driven back, for the coming of the dragons was with great thunder, and lightening, and a tempest of fire.

*The Silmarillion*, J.R.R. Tolkien

In a personal correspondence with the composer, I learned that Robert and I gave the Maryland premiere in 2014.

### Horn Vibes

1986

Verne Reynolds was an equally successful American horn player, pedagogue, and composer. This duet, composed in 1984, was written as a dialogue for the two instruments. The first and last movements are slower, lyrical, and marked freely and unmetered, while the middle movement is quicker and metered. This work features Reynolds' influence of jazz and chromaticism throughout.

### Thoughtful Wanderings

1990

To Native Americans, music has been the breath of the spirit of all life. There is scarcely a task, an event, or a feeling which does not have its own and fitting song. It is generally thought that these songs come to the Indians through dreams or visitations, and that people are only receptacles for this music and feel responsible to unravel its content and design.

This music might superficially be thought of as some of the world's least substantive, however, when taken within the social, poetic, and spiritual contexts from which it comes one perceives a further message...

*Thoughtful Wanderings* was composed for the natural horn

Color it yourself!

Recital No. 2: Driftwood Alloy



# Horn

Avery Pettigrew Presents:

## Driftwood Alloy

Featuring Robert Schroyer, percussion

5pm Saturday February 13, 2016  
Gildenhorn Recital Hall

DMA project description

My dissertation titled "What's the Matter with Extended Techniques? Getting Beyond the Stigma in the Horn and Percussion Repertoire" is working to promote the various unusual sounds a horn can make, specifically within the horn and percussion repertoire. This recital is focusing on the duets for horn and mallet percussion.

Extended Techniques Used

- Flutter Tongue
- Glissandi (half-valved, valved)
- Hand Mute (stopped, echo)
- Multi-phonics
- Playing Percussion
- Straight Mute

Thanks to:

A huge thank you to Robert Schroyer for playing this entire recital and helping me learn how to play the percussion parts in the horn part! Thank you to our teachers Gregory Miller, Phil Munds, and Lee Hinkle for their advice and guidance. And, as always, a special thanks to my family, this time for finding the mistake in my recital time!

Select Upcoming Solo Appearances

- 7:30pm Feb 27, 2016: Weber Concertino with Washington Sinfonietta
- 8pm April 9, 2016: DMA Recital No. 3
- 8pm April 12, 2016: Brahms Trio

Program	
Night Tide	Howard J. Buss (1951-)
Protected Sleep	Faye-Ellen Silverman (1947-)
Dreams from the Shadows	Howard J. Buss (1951-)
***Intermission***	
Of Old Angkor	Helen Gifford (1970-)
Sonata for Horn and Marimba	Charles Taylor (1959-)
1. =132	
2. =69 expressively	
3. =76	

Notes	
<b>Dreams from the Shadows</b> <i>(2015)</i>	<i>Dreams from the Shadows</i> for horn and vibraphone is dedicated to the hornist Gene Berger and percussionist Braham Dembar at Ball State University. According to Dr. Buss, this piece has many different moods and sections to “suggest a dream-like collage of sonic atmosphere.”
<b>Of Old Angkor</b> <i>(1995)</i>	In June 1970 there was great concern for the fate of the ancient shrine of Angkor Wat, which seemed likely to be damaged or destroyed by the war. I decided to make the piece a lament for the glory of the old Angkor Wat, that for centuries had been the capital and center of the flourishing Khmer empire. In writing for the horn and marimba I had in mind the Cambodian natural horn, the <i>srieng</i> , and a type of Asian xylophone.  -Helen Gifford
<b>Sonata</b> <i>(1991)</i>	Christopher and Leslie Norton, a horn and percussion duo based at Vanderbilt University are responsible for commissioning many of the pieces featured in this project. This <i>Sonata</i> was commissioned in 1986 and is possibly the most significant work for the horn and marimba duo. Charles Taylor studied with Joseph Schwanter, Warren Benson, and Samuel Adler and is based in Rochester, NY.

Notes

Night Tide

(1995)

NIGHT TIDE

Under cover of darkness waves storm the rugged coast.  
Invisible crests and troughs coax reluctant rocks  
From their sand beds,  
Lapping and tugging,  
Swelling and falling.

Drama unseen though felt as if time were real,  
Patiently counting the droplets and grains pitted at odds,  
Fragmenting one another in a marathon of spray and sand,  
cascades and claps:

Determined adversaries with no desire to win or lose,  
Only to battle through endless tide cycles.

-Howard J. Buss

Protected Sleep

(2007)

DURME DURME

SLEEP SLEEP

(Ladino)

Sleep Sleep

Durme, Durme

My beloved damsel

mi alma donzella

(or beautiful child)

(or hermoza donzella)

Sleep, sleep

durme, durme

Without anxiety or pain

sin ansia y dolor

Sleep, sleep

durme, durme

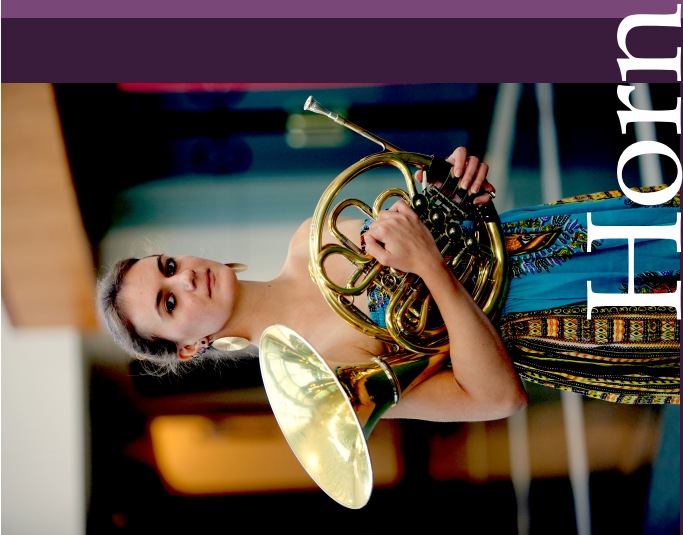
Without anxiety or pain

sin ansia y dolor

- Traditional Sephardic song

Color it Yourself!

## Recital No. 3: Progression



Avery Pettigrew Presents:

# Progression

8pm Saturday April 9, 2016  
Gildenhorn Recital Hall

### DMA Project Description

My dissertation titled "What's the Matter with Extended Techniques? Getting Beyond the Stigma in the Horn and Percussion Repertoire" is working to promote the various unusual sounds a horn can make, specifically within the horn and percussion repertoire. This recital is focusing on the future progress of this genre, with lesser-known pieces from the repertoire and new commissioned works.

### Extended Techniques Used:

- Buzzing
- Extreme ranges (tessitura, pedals)
- Flutter tongue
- Half-valve (held tones, bends, wiggle tones)
- Hand Mute (Stopped, echo, bends)
- Multi-phonic
- Note Bend (hand, lips)
- Open harmonics (glissandi)
- Straight Mute
- Vented slides (missing 3<sup>rd</sup> F slide, main tuning slide)
- Water effect

### Thanks to:

Thank you to all the folks up on stage with me! Thank you to my teachers, Greg Miller and Phil Munds, as well as Lee Hinkle for his guidance in the past on some of these works and for contributing to my repertoire choices. Thank you to all of the composers who contributed to this project! A thanks always to my family, this time for helping bake snacks for my reception (in the Café area). And, thanks to all of you who have been with me along this journey! I'm almost done!

### Select Upcoming Solo Appearances

5pm April 12, 2016: Brahms Horn Trio  
7pm May 11, 2016: Potomac Wind Quintet  
7:30pm March 17 2017: Glass Bead Game with Manassas Symphony Orchestra

Program		
<b>A Song of David</b>	<b>Brian Prechtl (1962-)</b> Featuring Robert Schroyer	
<b>Duetto pour Cor en Fa et Percussion</b>	<b>Pierre-Yves Level (1937-)</b> Featuring Maurice Watkins	
<b>Cincontar</b>	<b>Pablo Salazar (1988-)</b> Featuring Jon Clancy, Laurin Friedland, and Maurice Watkins	
<b>**Intermission**</b>		
<b>Tessellations</b>	<b>Robert Wolk (1988-)</b> Featuring Laurin Friedland and Robert Schroyer	
<b>Elegy</b>	<b>David Macbride (1951-)</b> Featuring Laurin Friedland	
<b>Metamorphosis: A Horn's Life</b>	<b>Charles Fernandez (1960-)/BMI</b> I. Prenatal and Toddler Featuring Jon Clancy, Laurin Friedland, and Robert Schroyer	

Notes		
<b>Tessellations</b>	Noise	<b>2016</b>
<b>Elegy</b>	David Macbride is an American composer based in Hartford Connecticut and is a professor at the Hartt School at the University of Hartford. He writes extensively for percussion and voice in various ensembles. This work was commissioned and premiered by Adrienne and Tracy Wiggins in 2002. According to the composer, this piece is a "quiet, contemplative" reflection.	<b>2009</b>
<b>Metamorphosis: A Horn's Life</b>	What if a French horn were an organic being?  -Charles Fernandez  This piece is an arrangement for solo horn, xylophone, vibraphone, and bass marimba of an original quintet for solo horn, alto saxophone, bassoon, trombone and double bass. Performed here tonight is the first movement of a future larger work. Charles Fernandez is an award nominated composer, arranger, bassoonist, and more, based in Los Angeles, California. This is a commissioned arrangement for my project and is the world premiere of this version. The original quintet debuted at a composer recital in March, 2016.	<b>2016</b>

## Notes

### A Song of David

1995

- I. The Lord is my rock, my fortress, and my deliverer  
My God, my rock, in whom I take refuge  
My shield and the horn of my salvation,  
My stronghold and my refuge,  
My savior;
- II. In my distress I called upon the Lord:  
To my God I called.  
From His temple He heard my voice,  
And my cry came to His ears.
- III. Then the earth reeled and rocked;  
The foundations of the heavens trembled  
And quaked, because He was angry.

-Samuel 22: 2-51

### Duetto pour Cor et Percussion

1999

This work is found in the series *Collection D' Œuvres pour Cor* from the Paris Conservatoire, a collection of works meant to be pedagogical works to introduce young musicians to modern music. Pierre-Yves Level is an organ and composition instructor at the Paris Conservatory.

### Cincontar

2016

Cincontar is a play on words in Spanish, "Cinco" meaning five and "Sin Contar" meaning without counting. The piece was written with ascending blocks of diminished chords that resolve at the very end. The piece has influences from the tropical regions of Bolivia, imitating a brass band during the Carnival season. This piece shows how flexible the horn can be, in the sense that in some sections it sounds like it belongs in the woodwind families and others it has the texture of a brass instrument.

-Pablo Salazar

Color it yourself!

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