A HISTORY AND PERFORMANCE GUIDE
OF A CONCERTO FOR TRUMPET AND CHAMBER ENSEMBLE:
FANFARES FOR THE APOCALYPSE
BY KEN UENO

By

Philippe Pierre Brunet

A DOCTORAL ESSAY

Submitted to the Faculty
of the University of Miami
in partial fulfillment of the requirements for
the degree of Doctor of Musical Arts

Coral Gables, Florida

May 2016
UNIVERSITY OF MIAMI

A doctoral essay submitted in partial fulfillment of
the requirements for the degree of
Doctor of Musical Arts

A HISTORY AND PERFORMANCE GUIDE
OF A CONCERTO FOR TRUMPET AND CHAMBER ENSEMBLE:
FANFARES FOR THE APOCALYPSE
BY KEN UENO

Philippe Pierre Brunet

Approved:

Craig Morris, M.M.
Associate Professor of Trumpet

Timothy Conner, B.M.
Lecturer of Trombone

Aaron Tindall, D.M.A.
Assistant Professor of Tuba and
Euphonium

Guillermo Prado, Ph.D.
Dean of the Graduate School

Charles Mason, D.M.A.
Professor and Chair of Music
Theory and Composition
Music for trumpet has seen a great expansion over the past fifty years. The importance of this development to the trumpet and music world cannot be overstated. The purpose of this study is to explain the process of commissioning, collaborating, preparation, and performance of Fanfares for the Apocalypse by Ken Ueno. Fanfares for the Apocalypse, a concerto for trumpet and chamber ensemble was commissioned and premiered by the University of Miami’s Henry Mancini Institute at the Frost School of Music featuring Philippe Brunet as soloist. This essay will address the history of Fanfares for the Apocalypse including the process of commissioning, history of the composer, practice techniques and application of various extended trumpet techniques found in the concerto as well as a performance guide. It will also address the ways that this concerto is person specific in that it was composed with the specific skills and musical aura of the soloist in mind.
ACKNOWLEDGEMENTS

I have been greatly honored to have been given the opportunity to collaborate with and learn from everyone involved with this project.

First, I would like to thank my family for their unfailing love and support. To my mother and father, Jocelyne and Pierre Brunet, I am so proud to be your son. To my sister and niece, Stephanie and Marie Noelle Brunet, thank you for being an inspiration to me.

To my doctoral committee, Professors Craig Morris, Timothy Conner, Aaron Tindall, and Charles Mason, thank you for the tremendous insight you have provided throughout this process.

To the Henry Mancini Institute and the Frost School of Music at the University of Miami, thank you for supporting this project and helping to make it a reality. To Stephen Guerra, thank you for your enthusiasm and persistence. To all of the performers in the ensemble, thank you for your open-mindedness and incredible musicianship.

To Ken Ueno, thank you for composing this amazing piece of art. Your deep wisdom and profound vision have inspired me to become a more thoughtful artist.

To my wife, Barbara Marks, thank you for your loving patience, and unyielding support during the late nights and crises of doubt. Your formidable editing skills and considerate advice have made me a better writer and thinker.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>LIST OF MUSICAL EXAMPLES</th>
<th>vi</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF TABLES</td>
<td>x</td>
</tr>
</tbody>
</table>

## Chapter

1. **INTRODUCTION**
   - Background About Ken Ueno ........................................... 3
   - Ken Ueno’s Musical Mission ............................................ 4
   - Biographical Information About Ken Ueno ................................ 7
   - Background About the Soloist ........................................... 8

2. **LITERATURE REVIEW**
   - Ken Ueno and His Music .................................................. 12
   - Literature on Extended Trumpet Techniques ............................ 15
   - Performance Guides ....................................................... 17
   - Pedagogical Literature .................................................. 19

3. **METHOD**
   - Pitch Classification ..................................................... 24

4. **HISTORY OF FANFARES FOR THE APOCALYPSE** ................................ 25

5. **CATALOGUE OF EXTENDED TECHNIQUES** ............................................. 31
   1. Air Flutter ........................................................................... 34
   2. Air Sound ............................................................................ 36
   3. Alternate Fingerings ......................................................... 38
   4. Bell Direction ....................................................................... 40
   5. Circular Breathing ............................................................ 42
   6. Double Pedal C .................................................................... 46
   7. Flutter Ram ........................................................................... 48
   8. Hocket Vocalizations .......................................................... 50
   9. Inhale on Air ........................................................................ 52
  10. Inhale on “huh” .................................................................... 55
  11. Microtonal Notation ............................................................. 57
  12. Multiphonics ......................................................................... 59
  13. Notated Valve Combinations .................................................. 67
14. Random Keys ................................................................. 69
15. Throat Singing ............................................................... 72

6 PERFORMANCE PREPARATION GUIDE .................................. 75
Measures 72-143 .................................................................... 76
Measures 144-212 ................................................................... 84
Measures 213-333 ................................................................... 92
Measures 334-400 .................................................................. 105

7 CONCLUSIONS ...................................................................... 113

BIBLIOGRAPHY .................................................................... 115

APPENDICES
A CUSTOM PERCUSSION INSTRUMENTS .............................. 118
B AUTOGRAPH MANUSCRIPT .............................................. 127
C CONCERT POSTER AND PROGRAM ................................. 128
D PROGRAM NOTE BY KEN UENO ...................................... 132
E SOLO PART FRONT MATTER ............................................. 135
# LIST OF MUSICAL EXAMPLES

<table>
<thead>
<tr>
<th>Example</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Pitch Classification</td>
<td>24</td>
</tr>
<tr>
<td>5.1</td>
<td>Ueno, <em>Fanfares for the Apocalypse</em>, pg. IV</td>
<td>34</td>
</tr>
<tr>
<td>5.2</td>
<td>Ueno, <em>Fanfares for the Apocalypse</em>, mm. 80</td>
<td>35</td>
</tr>
<tr>
<td>5.3</td>
<td>Ueno, <em>Fanfares for the Apocalypse</em>, mm. pg. IV</td>
<td>36</td>
</tr>
<tr>
<td>5.4</td>
<td>Ueno, <em>Fanfares for the Apocalypse</em>, mm. 72-75</td>
<td>37</td>
</tr>
<tr>
<td>5.5</td>
<td>Ueno, <em>Fanfares for the Apocalypse</em>, pg. IV</td>
<td>38</td>
</tr>
<tr>
<td>5.6</td>
<td>Ueno, <em>Fanfares for the Apocalypse</em>, mm. 184-187</td>
<td>39</td>
</tr>
<tr>
<td>5.7</td>
<td>Ueno, <em>Fanfares for the Apocalypse</em>, mm. 355-362</td>
<td>40</td>
</tr>
<tr>
<td>5.8</td>
<td>Ueno, <em>Fanfares for the Apocalypse</em>, mm. 371-378</td>
<td>41</td>
</tr>
<tr>
<td>5.9</td>
<td>Ueno, <em>Fanfares for the Apocalypse</em>, mm. 395-396</td>
<td>41</td>
</tr>
<tr>
<td>5.10</td>
<td>Ueno, <em>Fanfares for the Apocalypse</em>, mm. 334</td>
<td>43</td>
</tr>
<tr>
<td>5.11</td>
<td>Ueno, <em>Fanfares for the Apocalypse</em>, mm. 127-128</td>
<td>43</td>
</tr>
<tr>
<td>5.12</td>
<td>Ueno, <em>Fanfares for the Apocalypse</em>, mm. 129-132</td>
<td>44</td>
</tr>
<tr>
<td>5.13</td>
<td>Ueno, <em>Fanfares for the Apocalypse</em>, mm. 334-338</td>
<td>44</td>
</tr>
<tr>
<td>5.14</td>
<td>Ueno, <em>Fanfares for the Apocalypse</em>, mm. 96-97</td>
<td>46</td>
</tr>
<tr>
<td>5.15</td>
<td>Ueno, <em>Fanfares for the Apocalypse</em>, mm. 103-104</td>
<td>47</td>
</tr>
<tr>
<td>5.16</td>
<td>Ueno, <em>Fanfares for the Apocalypse</em>, mm. 82</td>
<td>48</td>
</tr>
<tr>
<td>5.17</td>
<td>Ueno, <em>Fanfares for the Apocalypse</em>, mm. 80-83</td>
<td>49</td>
</tr>
<tr>
<td>5.18</td>
<td>Ueno, <em>Fanfares for the Apocalypse</em>, mm. 236</td>
<td>50</td>
</tr>
<tr>
<td>5.19</td>
<td>Ueno, <em>Fanfares for the Apocalypse</em>, mm. 157</td>
<td>51</td>
</tr>
<tr>
<td>5.20</td>
<td>Ueno, <em>Fanfares for the Apocalypse</em>, mm. 220-224</td>
<td>51</td>
</tr>
</tbody>
</table>
Example 5.21: Ueno, *Fanfares for the Apocalypse*, mm. 271-275 .................................. 52
Example 5.22: Ueno, *Fanfares for the Apocalypse*, mm. 113-114 .............................. 53
Example 5.23: Ueno, *Fanfares for the Apocalypse*, mm. 123-124 .............................. 53
Example 5.24: Ueno, *Fanfares for the Apocalypse*, mm. 127-128 .............................. 54
Example 5.25: Ueno, *Fanfares for the Apocalypse*, mm. 84 ........................................ 56
Example 5.26: Ueno, *Fanfares for the Apocalypse*, mm. 127 ....................................... 56
Example 5.27: Ueno, *Fanfares for the Apocalypse*, pg. II ............................................ 57
Example 5.28: Ueno, *Fanfares for the Apocalypse*, mm. 297-299 .............................. 58
Example 5.29: Ueno, *Fanfares for the Apocalypse*, mm. 171-172 .............................. 59
Example 5.30: Ueno, *Fanfares for the Apocalypse*, mm. 334-338 .............................. 60
Example 5.31: Ueno, *Fanfares for the Apocalypse*, mm. 338-340 .............................. 61
Example 5.32: Ueno, *Fanfares for the Apocalypse*, mm. 109-112 .............................. 61
Example 5.33: Ueno, *Fanfares for the Apocalypse*, mm. 145 ....................................... 62
Example 5.34: Ueno, *Fanfares for the Apocalypse*, mm. 147-148 .............................. 62
Example 5.35: Ueno, *Fanfares for the Apocalypse*, mm. 151 ....................................... 63
Example 5.36: Ueno, *Fanfares for the Apocalypse*, mm. 160 ....................................... 63
Example 5.37: Ueno, *Fanfares for the Apocalypse*, mm. 171-172 .............................. 63
Example 5.38: Ueno, *Fanfares for the Apocalypse*, mm. 191 ....................................... 64
Example 5.39: Ueno, *Fanfares for the Apocalypse*, mm. 231 ....................................... 64
Example 5.40: Ueno, *Fanfares for the Apocalypse*, mm. 379-384 .............................. 64
Example 5.41: Ueno, *Fanfares for the Apocalypse*, mm. 76-78 ..................................... 67
Example 5.42: Ueno, *Fanfares for the Apocalypse*, mm. 328 ....................................... 68
Example 5.43: Ueno, *Fanfares for the Apocalypse*, mm. 125-127 .............................. 68
Example 5.44: Ueno, *Fanfares for the Apocalypse*, mm. 79 .............................. 70
Example 5.45: Ueno, *Fanfares for the Apocalypse*, mm. 84-87 .......................... 70
Example 5.46: Ueno, *Fanfares for the Apocalypse*, mm. 121-124 ....................... 71
Example 5.47: Ueno, *Fanfares for the Apocalypse*, pg. IV .............................. 72
Example 5.48: Ueno, *Fanfares for the Apocalypse*, mm. 109-112 ....................... 73
Example 6.1: Ueno, *Fanfares for the Apocalypse*, mm. 72-79 ............................ 77
Example 6.2: Ueno, *Fanfares for the Apocalypse*, mm. 96-108 .......................... 79
Example 6.3: Ueno, *Fanfares for the Apocalypse*, mm. 121-128 ....................... 81
Example 6.4: Ueno, *Fanfares for the Apocalypse*, mm. 133-143 ....................... 82
Example 6.5: Ueno, *Fanfares for the Apocalypse*, mm. 144-162 ....................... 86
Example 6.6: Ueno, *Fanfares for the Apocalypse*, mm. 174-176 ....................... 88
Example 6.7: Ueno, *Fanfares for the Apocalypse*, mm. 184-187 ....................... 89
Example 6.8: Ueno, *Fanfares for the Apocalypse*, mm. 196-199 ....................... 90
Example 6.9: Ueno, *Fanfares for the Apocalypse*, mm. 204-212 ....................... 91
Example 6.10: Ueno, *Fanfares for the Apocalypse*, mm. 213-226 ..................... 93
Example 6.11: Ueno, *Fanfares for the Apocalypse*, mm. 230-233 ..................... 94
Example 6.12: Ueno, *Fanfares for the Apocalypse*, mm. 234-246 ..................... 95
Example 6.13: Ueno, *Fanfares for the Apocalypse*, mm. 251-265 ..................... 97
Example 6.14: Ueno, *Fanfares for the Apocalypse*, mm. 268-275 ..................... 98
Example 6.15: Ueno, *Fanfares for the Apocalypse*, mm. 276-279 ..................... 99
Example 6.16: Ueno, *Fanfares for the Apocalypse*, mm. 284-289 ................... 100
Example 6.17: Ueno, *Fanfares for the Apocalypse*, mm. 297-308 ................... 102
Example 6.18: Ueno, *Fanfares for the Apocalypse*, mm. 309-33 .............................. 103

Example 6.19: Ueno, *Fanfares for the Apocalypse*, mm. 334-354 ............................. 106

Example 6.20: Ueno, *Fanfares for the Apocalypse*, mm. 363-370 ............................. 108

Example 6.21: Ueno, *Fanfares for the Apocalypse*, mm. 373-383 ............................. 109

Example 6.22: Ueno, *Fanfares for the Apocalypse*, mm. 385-400 ............................. 110
LIST OF TABLES

Table 5.1 ........................................................................................................... 33

Table A.1 .......................................................................................................... 124
CHAPTER 1

INTRODUCTION

“The “Golden Ages” of the trumpet might be defined as the Baroque and today.”

–Edward Carroll

The modern era, beginning in the early 1950’s up to now has been the background for an incredible growth of new music written for trumpet. What’s even more inspiring is that the expansion of the trumpet repertoire is accelerating thanks to the ubiquity of technology, increased commission funding availability through crowd sourcing, and the efforts of grass roots new music ensembles. At some point, all music was new. The continuation of the art form is dependent upon production of new music.

Thomas Stevens, former principal trumpet of the Los Angeles Philharmonic and one of my former teachers, felt that there was a lack of major trumpet repertoire from the classical, romantic, and modern eras until the 1950’s, resulting in a gap of musical and technical continuity.

In the words of Thomas Stevens:

We cannot overlook the fact that even though the trumpet has existed in its present form most of the twentieth century, two generations of trumpeters have somehow managed to avoid having major works written for them by the leading composers of the times. Barber, Bartok, Berg, Copland, Poulenc, Prokofiev, Schoenberg, Shostakovich, Stravinsky, Walton, Webern, for example. All wrote well for the instrument, and they similarly wrote solo works for other instruments. Yet, for any number of reasons, the trumpet, as a solo instrument, was neglected.

The result? Not only a needless extension of the void in our repertoire from the Classical and Romantic Periods, but also a denial of the logical historical musical continuity which has led to present day musical developments.

-Thomas Stevens²

Thanks to the concerted efforts of people like Thomas Stevens, Håkan Hardenberger, Edward Carroll, John Wallace, Markus Stockhausen, Marco Blaauw, Maurice André, Tine Thing Helseth, Armando Ghitala, Alison Balsom, and others, the trumpet as a solo instrument has become increasingly common in contemporary music. These visionaries each expanded the repertoire and encouraged the music world to treat the trumpet as a serious musical vessel on par with the violin, cello, or piano. Because of contributions by these and other great artists, the canon of trumpet music has vastly grown and enjoyed increased exposure to listening audiences.

In an effort to raise awareness of new music written for the trumpet, this document focuses on a concerto for trumpet in C and chamber ensemble or solo trumpet titled *Fanfares for the Apocalypse*, by Ken Ueno. *Fanfares for The Apocalypse* was premiered on September 26, 2015 featuring myself as soloist in Maurice Gusman Concert Hall with the University of Miami’s Henry Mancini Institute Orchestra at the Frost School of Music. This essay explains the history of *Fanfares for the Apocalypse* including the commissioning and collaborative processes, provides a catalogue of extended trumpet techniques included in the concerto, and serves as a performance guide.

---

**Background About Ken Ueno**

The music of the Rome and Berlin Prize winning composer, performer, sound artist, and improviser, Ken Ueno, has been performed and celebrated globally. The New York Times has described Ken Ueno’s work as, “gorgeous”³ and “gripping.”⁴ Ueno’s first opera, *Gallo*, was heralded by the Boston Globe as “engineering an operatic evolution.”⁵ Some of the most important musicians of our time have championed Ueno’s music. Longtime collaborators of Ueno’s include the Grammy Award winning violist, Kim Kashkashian, and the Hilliard Ensemble, arguably the most important vocal group of early and contemporary music of the past fifty years. Frances-Marie Uitti, the world-renown cellist who has collaborated with some of the most important composers of the late 20th century (e.g. Scelsi, Cage, Kurtag, Harvey, Andriessen, among others) is another one of Ueno’s most trusted collaborators. Over the past two decades, Ueno has also written for prominent ensembles such as the Prism Saxophone Quartet, the Del Sol Quartet, Alarm Will Sound, Eighth Blackbird, Bang on a Can All-stars, the San Francisco Contemporary Music Players, the Partch Ensemble, the Pro Artes Chamber Orchestra, So Percussion Ensemble, and the Nieuw Ensemble, among others. Well-known artists such as Robyn Schulkowsky, Teodoro Anzellotti, Vincent Royer, Gil Rose, Gabriela Diaz, Wendy Richman, Gregory Oakes, Tim Feeney and Laura Carmichael have also performed Ueno’s music. His music has been presented at such venues and festivals as

---


Lincoln Center, the Kennedy Center, the Metropolitan Museum of Art, MusikTriennale Köln Festival, Ars Musica, Warsaw Autumn, the GAIDA festival, Darmstädter Ferienkurse, the Muziekgebouw, the Hopkins Center, Spoleto USA, the Atlantic Music Festival, and Steim. Ueno has earned awards and grants from the American Academy in Rome, the American Academy in Berlin, the Fromm Music Foundation, the Aaron Copland House and Fund for Music Recording, Meet the Composer, the Pittsburgh Foundation, and twice the MAP Fund has supported his projects. As a performer himself, a vocalist specializing in extended techniques, Ueno has performed as a soloist with orchestras throughout the world, including the Boston Modern Orchestra Project, the Warsaw Philharmonic, the Lithuanian National Symphony, the Thailand Philharmonic, as well as orchestras in California, North Carolina, and New York.6

Ken Ueno’s Musical Mission

Ken Ueno’s artistic mission is to champion sounds that have been overlooked or denied so that audiences may reconsider their potential. Discovering the potential of these rarefied sounds involves developing them so that they can be articulated and nuanced.7 Uenos’s music challenges the limits of perception, traditional paradigms of beauty, and often employs the talents of specific performers.8 Since 2005, many of Ueno’s works have been person-specific, a trait he describes as:

Person-specific music demands that it be experienced by specific people performing it. In the face of the ever-increasing digitization of our lives, I am questioning the transportability of classical music. “Analog songs” is a metaphor

---

for the uniqueness in all of us that makes us human. I want to help people realize their “analog songs” and have the courage to actualize themselves.

-Ken Ueno⁹

Among the seven person-specific works that Ueno has composed in the concerto genre are Kaze-no-Oka, Talus, On a Sufficient Condition for the Existence of Most Specific Hypothesis, Hapax Legomanon, Zetsu, Fanfares for the Apocalypse, and Rapt Afterness. Kaze-no-Oka, a concerto for Biwa and Shakuhachi was written and commissioned for the Boston Modern Orchestra Project in honor of Toru Takemitsu’s memorial service in 2005 and was Ueno’s first person-specific concerto. The specific skills of each member of the orchestra were meticulously considered during its composition. Soon after, Ueno wrote Talus, a viola concerto for Wendy Richman. Ueno composed it with the deeply personal experience and unique virtuosic talents of Wendy Richman in mind. Specifically, during a performance of one of David Lang’s operas, Ms. Richman fell off the stage and broke her talus bone. During the composition process, Ueno used an x-ray image to create a spectral analysis of the screws that had been placed in Ms. Richman’s talus bone as a result of her injury. Ueno then used the spectral analysis to establish the harmonic language and general structure for Talus. Ueno’s next person-specific piece was On a Sufficient Condition for the Existence of Most Specific Hypothesis (2008), a vocal concerto written by and for Ueno. The Boston Globe said that, “It's a concerto that engrossingly reinvents the discourse.”¹⁰ Ueno utilized his own skills as a vocalist specializing in throat singing, harmonics, sub-tone singing, extreme

registers, and circular breathing. *Hapax Legomanon* followed in 2014, a concerto for double bowed cello written for the unique abilities of the soloist Frances Marie Uitti. Ueno was fascinated by her ability to control two bows in one hand and produce different articulations as well as four-note chords.\(^\text{11}\) His fifth person-specific concerto was *Zetsu*, a violin concerto premiered in 2015 and written with the virtuosic ability of soloist Gabriela Diaz in mind. *Zetsu* was inspired by the aesthetic risk taking of the late Japanese sculptor, Nishida Jun, who employed dangerous working methods often resulting in predictable, structured elements with unstable, amorphous traits. Tragically, Jun died in a kiln explosion during the sculpting process.\(^\text{12}\) *Fanfares for The Apocalypse*, a concerto for trumpet and chamber ensemble, was written for me. Some of the sounds developed through the collaboration with Ueno include unique applications of many extended techniques such as throat singing while playing, multiphonics, use of extreme high and low registers from C2 to F6, microtones, air sounds, air flutter, flutter rams, glissandi, vocalizations, circular breathing, and sung pitches. Some techniques such as flutter, multiphonics, and glissando are sometimes performed simultaneously. This compound use of techniques contributes to the technical difficulty of the piece and creates a musical aesthetic previously unheard of in the trumpet repertoire. Ken Ueno’s ability to craft these sounds in such a unique way is part of what makes his music so special.

---


Biographical Information about Ken Ueno

Born in Bronxville, New York (1970), Ken Ueno attended the United States Military Academy at West Point in 1987 where upon graduation, Ueno intended to serve his country by eventually becoming a General and later retiring to become a California State Senator. Unfortunately, during his second year at West Point, Ueno suffered an injury during training and was forced to leave the academy for recovery. In 1991, Ueno enrolled at Berklee College of Music, studying film scoring and composition with John Bavicchi and Herb Pomeroy graduating in 1994. In 1997, Ueno graduated from Boston University with his Masters of Music in Composition where he studied under Lukas Foss and Tison Street. He subsequently attended the Yale School of Music where he earned a Masters of Musical Arts in Composition and studied with Martin Bresnick and Bun-Ching Lam. After graduating from Yale in 1999, Ueno continued his studies at Harvard University under the tutelage of Bernard Rands, Mario Davidovsky, Hans Tutschko, and Sir Harrison Birtwistle. He graduated from Harvard with a Ph.D. in composition in 2005. Since 2008, Ken Ueno has been an Associate Professor of Composition at The University of California, Berkeley where he teaches, composes, lectures, and performs internationally.

Ken Ueno began his musical journey at 16 after having been abandoned in a mountain cabin by his brother for a day on a skiing trip. During the day that Ueno was left alone, he discovered a turntable and a copy of Jimi Hendrix’s famous album Are You

---


Experienced? Ueno listened to this influential album repeatedly that day and decided that he needed to learn the guitar. Ueno says that he felt a visceral connection to the sound of Hendrix’s guitar.\textsuperscript{16} The artist’s second musical epiphany came when he discovered Bela Bartok’s String Quartet No. 4 and the music of Stravinsky while at Berklee College of Music in Boston, Massachusetts. While there, Ueno studied film scoring and guitar. Upon hearing the works of Bartok and Stravinsky, Ueno decided to become a composer, stating:

> When I first heard Bartók's fourth string quartet, it was a kind of a second [musical] conversion experience after Jimi Hendrix. This was visceral, powerful music, and I was instantaneously inspired by it. But I also felt that there was something I didn't understand about it. The intellectual part is what got me interested in classical composition.\textsuperscript{17}

"If it wasn't for Jimi Hendrix," says Ueno, “I wouldn’t be a composer.”\textsuperscript{18}

Background about the Soloist

Like Ken Ueno, I felt the spark of fascination with new music dating back to the first time listening to a recording of Igor Stravinsky’s \textit{Le Sacre du Printemps} and Ligeti’s \textit{Atmospheres} at the age of fifteen. I fell in love with the rhythmic energy of Stravinsky’s music and the microtonal, ethereal sound scape of Ligeti’s \textit{Atmospheres}. In 2013, after arriving at McGill University in Montreal, Canada, I had the intention of becoming principal trumpet of a major symphony orchestra. Training towards this goal at McGill


was rigorous, supportive, and intense. At the start of my third year, I began studying with internationally recognized trumpet soloist and pedagogue, Edward Carroll. Mr. Carroll was instrumental in my exposure to new music for trumpet and encouraged me to explore the world of unaccompanied solo trumpet repertoire. Around the same time, I co-founded *Metamorphosen*, a brass quintet of like-minded individuals that specialized in contemporary music. Being exposed to so much new and interesting music in a chamber music setting during that time led me to reconsider my ultimate goal of becoming a principal player in an orchestra. In spring 2006, *Metamorphosen* was awarded a fellowship by the renowned American Brass Quintet to attend the Aspen Music Festival and School the following summer. During the course of the summer, this tremendous honor afforded *Metamorphosen* the opportunity to perform three quintet recitals of contemporary music. After the festival, I decided to specialize in new music. In my fourth and final year at McGill, I had the privilege of hearing the renowned performance ensemble *Huun Huur Tu* give a master class. They performed music from the Tuvan tradition that included overtone singing, throat singing, with traditional Tuvan acoustic instruments. This master class was a very important moment in my education because it started me on the path of learning how to throat sing.

Upon graduation from McGill in 2007, I continued my studies with Edward Carroll in pursuit of a Master of Fine Arts degree at California Institute of The Arts in Valencia, California. While attending CalArts, I was exposed to music in many different styles from all over the world. My experience was not unlike most other CalArts students; I had the opportunity to collaborate with peers and faculty alike on a multitude of new and experimental projects, several of which were interdisciplinary. The collaborative
and artistic mindset at CalArts was both palpable and infectious. As a result, I began commissioning friends and sometimes professors to write new pieces for me using the techniques I had only begun to develop, including throat singing. The collaborative and musical skills I developed at CalArts have been essential to my current musical output.

Upon graduation in 2009, I decided to completely rebuild my embouchure and playing technique. I drastically changed the mouthpiece placement on my lips from a setting that was very low, and prone to injury and fatigue, to a setting that is ideally suited to my jaw and lip structure. I had physical limitations in my technique that were preventing me from learning some of the most difficult repertoire such as Luciano Berio’s *Sequenza X*, Sir Peter Maxwell Davies’ master piece for solo trumpet, *Litany for a Ruined Chapel Between Sheep and Shore*, and Bern Allois Zimmermann’s concerto, *Nobody Knows de Trouble I See*. The time period between 2009 and 2012 was spent rebuilding my embouchure into what I imagined would enable me to perform any style of music be it orchestral, chamber, or solo, no matter how musically challenging or physically demanding.

In 2012, I applied to the Bard Conservatory in Annandale-on-Hudson, NY. During the year I spent at Bard, I began reacquainting myself with performing at a high level. While at Bard, I successfully performed one of the works I had previously been unable to do due to my previous embouchure, Berio’s *Sequenza X*. This transformative year was instrumental in transitioning back to performing regularly.

In the summer of 2013, I was awarded a fellowship to attend the Atlantic Music Festival. While at AMF, I had the distinct pleasure of meeting Ken Ueno and had the opportunity to perform his piece for brass quintet, *Zero Cosmology*. I also had the
privilege of performing Berio’s *Sequenza X* and Robert Erickson’s *Kryl*. After the performances of Ueno’s quintet and the two solo trumpet pieces, Ken Ueno expressed interest in writing a person-specific trumpet concerto for me. I was both humbled and surprised to hear Ueno say he wanted to write for me. Upon leaving the festival, Ueno and I kept in contact to discuss how the concerto would be developed, commissioned, and performed.

In 2013, I was awarded a fellowship to earn a Doctorate of Musical Arts degree at the University of Miami’s Frost School of Music. Since then, I have served as a Teaching Assistant and Henry Mancini Fellow studying with Professor, and former principal trumpet of the Chicago Symphony, Craig Morris. With a renewed purpose in performing new music, I felt inspired by Professor Morris and the other faculty at the University of Miami to learn works that I previously would not have thought possible. By far the most significant project that I have been a part of while at the Frost School has been the commissioning, preparation, and performance of *Fanfares for the Apocalypse* by Ken Ueno.
CHAPTER 2
LITERATURE REVIEW

This chapter summarizes the documents relevant to *Fanfares for the Apocalypse* by Ken Ueno. Divided into four sections, the chapter begins with a discussion of insightful sources on Ken Ueno and his compositional style. The second section focuses on scholarly documentation that addresses and explains the use of extended trumpet techniques. The next section will summarize relevant recent performance guides. Finally, the chapter concludes with a review of useful pedagogical trumpet resources that can aid in building the technique this concerto demands.

Ken Ueno and His Music

Ken Ueno is one of the most inspiring composers working today. Inspiring, since his art is transformative. Eschewing easy accessibility, Ueno’s work encourages and nurtures the possibility for performers and audiences to expand their performative and aesthetic boundaries as an embodied experience. It curates an enhanced aesthetical perception that can even permeate the most quotidian of moments in life. Many interviews and articles have been written addressing Ueno’s challenging music, brazen style, and artistic vision. The interviews and articles I chose to include demonstrate Ueno’s artistic philosophy as well as the dynamism of his canon. Ueno’s recent interview with www.hocTok.com provides a glimpse into his artist outlook as well as information on his works.
During this interview, Ueno states that:

Art is an attitude, at once a way of seeing (and in my case hearing) the world and imagining what one might see (hear) that fills us daily and challenges us to the end of our days.¹⁹

Ueno believes that music is a worthwhile endeavor to soothe the soul and cultivate empathy, as he iterates in the following:

One of the first things art does is curate empathy. In my own work, I am trying to deliver in some measure what I have received from my favorite art. Art first has to be good and earnest. Then, it can reach almost anybody. I think that many programmers are afraid that their audiences can’t get challenging art. What that means is that they don’t believe in the art and that they don’t trust their audiences.²⁰

Ueno addresses the challenges often faced when presenting new work and implies that concert producers often underestimate the audience’s ability to listen to and enjoy a piece outside of standard repertoire.

In an interview with Mark Small from Berklee Today, Ueno describes the kind of audience he writes for and why it is important:

In this post-capitalist society, there's so much music. Even the pop music I like to listen to sometimes seems so ubiquitous. I want to write music that somehow privileges the people who want to go see the live performance... I'm not out there for ubiquity but for people who are more committed. When the audience hears the music, they realize it's something that they can't get anywhere else.²¹


Ueno feels that writing sincere and often-intense music is necessary in order to truly communicate with the listener. In an interview with www.reformer.com, he talks about how one of the functions of art is to challenge the listener in a positive way, as stated, "One of the functions of art is to open up people’s expectations. We want to confront people’s expectations of what music can be."\footnote{Jon Potter, review of Yellow Barn Residency featuring Ken Ueno, Battleboro Reformer, Battleboro, VT, January 10, 2013, last accessed March 4, 2016. http://www.reformer.com/ovation/ci_22344113/discovering-harposaurus-and-other-new-musical-creatures-artists?source=rss.}


Ueno believes that Berio’s music finds the purest potential for music through the instruments he wrote for. Berio’s music is therefore not transferrable to other instruments because of the intricate nature of his composition style. During Ueno’s compositional process of person-specific pieces, he writes with the potential of the performer and their instruments in mind. He closely examines the special skills of the performer to create the piece’s character. In an interview by New Music Box, “Decoding Ken Ueno,” he equates his role in the collaboration to incorporate the special skills of the performer as that of an expert tailor. Ueno tailors the suit so that hopefully it’s comfortable and people think “Hey, you look good, man. Where’d you get that suit?”\footnote{Ken Ueno, interview by Molly Sheridan, New Music Box, July 21, 2008, last accessed March 4, 2016, http://www.newmusicbox.org/articles/Decoding-Ken-Ueno/.}
Literature on Extended Trumpet Techniques

There are several examples of scholarly writings addressing the use of extended techniques on the trumpet. An early survey from 1974 by Paul Smoker catalogues extended trumpet techniques and the related notation found in trumpet music from 1900 to 1974. Smoker details the technical and compositional aspects of pedal tones, flutter tonguing, extreme high range, glissandi, circular breathing, and multiphonics among others. Smoker’s survey serves as a guide for composers and trumpet players interested in learning extended techniques.25

Attilio Tribuzi wrote of extended techniques originally used in jazz music and how they were applied to unaccompanied solo trumpet music. Extended techniques such as glissandi, use of mutes, vibrato effects, microtones, and non-traditional valve technique were explained. Tribuzi analyzed pieces by composers such as Robert Erickson, Frank Tichelli, Lucia Dlugoszewski, Edward Diemente, and Karlheinz Stockhausen. The author states that many of the techniques are quite easy to produce until they occur in context of the music. He elaborated on how some of the sounds become especially difficult to produce due to the use of compound techniques, such as simultaneous multiphonics and flutter tongue. Tribuzi concludes that, according to 1974’s International Conference on New Music Notation, there should be a standardized notation system as well as copious performance notes explaining how each extended technique is produced.26

---

Dr. William Denton created useful etudes and exercises designed to aid in learning various extended techniques such as flutter tongue, doodle tongue, shakes, microtonal effects, slide removal, air and mouthpiece effects. Denton’s etudes can be used to understand the techniques more thoroughly to develop consistent execution.27

Dr. Amy Cherry demonstrated a methodical approach explaining extended trumpet techniques and provides an in depth study about the way extended techniques are taught and implemented. Cherry surveyed over one thousand trumpet professors addressing their experiences with teaching, learning, and implementing extended trumpet techniques into a student’s normal practice routine and repertoire. She also provided a guided approach to 20 selected contemporary trumpet works detailing suggestions for study. Cherry also created a methodical approach to learning extended techniques using a template of five categories: First, explanation of the technique, next, clarification of notation, third, examples from the repertoire, following with a description of possible challenges to the performer, and finally, exercises for study. She concluded that in order for extended techniques to become more common in trumpet teaching, there should be many more pieces written that incorporate extended trumpet techniques. It is essential that players with less experience have access to pieces that use extended techniques so that they may logically advance to the more challenging unaccompanied trumpet repertoire.28

Performance Guides

This section summarizes scholarly performance guides addressing contemporary music for trumpet. The section also discusses a performance guide to a cello concerto that was the result of a close collaboration between the performer and composer.

Dr. Peter Francis’ study examined four unaccompanied solo trumpet compositions from the performer’s perspective. Francis addressed works by Persichetti, Wolpe, Sampson, and Ticheli. The works were composed during the mid to late twentieth century and include the use of extended techniques. Dr. Francis focused on compositional elements by analyzing the form, melody, rhythm, and implied harmony of each piece. He then followed up with an explanation of the extended techniques found in each of these works.  

Dr. Matthew Haley’s performance guide accompanies Bernd Alois Zimmermann’s intensely beautiful and challenging trumpet concerto, Nobody Knows de Trouble I See. Haley wrote the document hoping to encourage trumpet players to take on this challenging yet rewarding piece. Haley acknowledges that, though the work was composed in 1954, it is rarely performed due to the extremes of register and technical demands. This document exudes hope for the future of this great concerto because of the template provided for preparation and performance. 

Dr. Brian Winegardner wrote a performance guide for two trumpet concerti by Lowell Liebermann and John Williams. Winegardner provided biographical information


about the composers as well as a history of the works discussed. He explained the concerto as a musical genre and the trumpet’s role as a solo instrument. Although neither of the concerti contain extended techniques, they are each exceedingly difficult due to the virtuosic fundamental technique and control required.\footnote{Brian J Winegardner, “A Performer’s Guide to Concertos for Trumpet and Orchestra by Lowell Liebermann and John Williams,” DMA Diss., University of Miami, 2011 Accessed October 28, 2015, http://access.library.miami.edu/login?url=http://search.proquest.com/docview/871631301?accountid=14585.}

Dr. Brendan McGlynn wrote a performance guide for three monumental unaccompanied trumpet works of the twentieth century. The works of Robert Henderson, Hans Werner Henze, and Verne Reynolds were analyzed from his perspective as a performer. McGlynn wrote that unaccompanied trumpet repertoire was gaining popularity in the trumpet world and that scholarly documentation, especially in the form of a performance guide, is scarce. McGlynn also discussed valuable insight gleaned from Professor Edward Carroll and Thomas Stevens addressing the importance of expanding the trumpet repertoire through collaborating with and commissioning composers.\footnote{Brendan K. McGlynn, “An Analysis for Performance of Selected Unaccompanied Works for Trumpet by Robert Henderson, Hans Werner Henze and Verne Reynolds,” DMA diss., University of Nebraska, 2007. Accessed November 4, 2014. http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1099&context=musicstudent.}

Dr. Ashley Garritson’s performance guide detailed the commissioning, collaborative, and performance preparation for Deep Heaves the Ocean black..., a concerto for cello by composer Aaron Travers. Dr. Garritson detailed the entire collaborative process by iterating how she chose to work with Aaron Travers through extensive research on contemporary composers and by consulting with esteemed colleagues and professors including Cliff Colnot, Augusta Reed Thomas, and Gary Green. Garritson continued by explaining how she collaborated with the composer on a trip to Indiana University, influencing the final product. She also discussed the premiere
performance and the importance of collaboration between composers and artists to promote new music with the listening audience in mind. Garritson continued with a detailed performance guide for the concerto including a technical explanation, descriptions of musical obstacles, and interpretive ideas. The piece was commissioned by the Frost School of Music at the University of Miami under the leadership of Professor Gary Green.\footnote{33 Ashley Marie Garritson, "The Journey from Inception to Performance of a Twenty-First Century Cello Concerto: Deep heaves the Ocean black... by Aaron Travers" (2010), DMA Diss., University of Miami, Open Access Dissertations. Paper 962.}

**Pedagogical Literature**

The final section contains summaries of scholarly writings addressing pedagogical approaches to aid in acquiring the fundamental technique required to perform *Fanfares for the Apocalypse* by Ken Ueno. Because the concerto requires a range from double pedal C2 to F6, the ability to perform leaps of more than two octaves, sustain very long tones in different registers, and to overcome endurance issues encountered during extended periods of circular breathing, pedagogical insight is of the utmost importance.

Markus Stockhausen, trumpeter and son of composer Karlheinz Stockhausen, is no stranger to difficult and demanding solo repertoire. His father wrote a great deal of music for Markus including operas such as *Sirius* and *Aus Licht*, each requiring a virtuoso technique. High range, extended techniques, excellent endurance, pedal tones, lyrical playing, and extreme flexibility are all required. In order to acquire the proficiency he needed to perform these works, he spent a great deal of time, especially early on from
about 1978, studying and applying the teachings and concepts of one of the great instrumental teachers of the twentieth century, Carmine Caruso.

Markus Stockhausen created a document called *The Basic Caruso* explaining his perspective of some of the primary exercises that Caruso taught to his students. This document is a compendium of exercises that can be found in *Calisthenics for Brass* by Carmine Caruso.\(^3^4\) Markus Stockhausen claims that the exercises found in *The Basic Caruso* were essential in establishing a focused embouchure, developing strength and endurance, as well as the expansion of his upper and lower registers. Stockhausen includes five exercises: Six Notes, Seconds, Harmonics, Chromatic Pedals, and Chord Pedals. This document has proven invaluable to my own development as a trumpet player. It provides an efficient and effective approach for developing control over the entire range of the trumpet including pedal tones almost three octaves below the normal playing range and upper register development beyond C7. These exercises aid in achieving a smooth and efficient airstream and a strong, stable embouchure with a responsive, flexible aperture.\(^3^5\)

Dr. Derek Ganong’s essay on the late Laurie Frink and her method of trumpet instruction provides a detailed and logical insight into her teaching. Dr. Ganong included several examples from Frink’s teachings that serve as valuable tools to establish a balanced means of sound production and technical ability. Ganong’s explanation of the six notes exercise, bend studies, intervals, pedals, flexando, and pedal exercises were

---


\(^{3^5}\) Markus Stockhausen, “The Basic Caruso,” Aktivraum Musikverlag, 2004, www.aktivraumverlag.de%2Fmedia%2Fdata%2Fthe_basic_caruso_1.pdf&usg=AFQjCNHCQm58meAVB4meOkV1v6kZ60e1NQ&sig2=uatZzsbSVd43kVY0hV208g.
very useful during the process of expanding my own technical ability to perform

_Fanfares for the Apocalypse._\(^{36}\)

---

CHAPTER 3

METHOD

This chapter outlines the processes employed in explaining the collaborative aspects of the concerto, the catalogue of extended techniques, and the performance guide to *Fanfares for the Apocalypse*.

The musical collaboration to create Ken Ueno’s *Fanfares for the Apocalypse* consisted of several stages. In Chapter 4, I explain how Ueno and I became acquainted and interested in working together, as well as my trip to Berkeley, California to workshop different sounds and specific repertoire with Ueno to establish a deeper musical understanding. During the development phase in California, Ueno recorded and analyzed a variety of sounds and techniques that either I had developed or he had suggested based on his knowledge of the instrument. During these recording sessions, Ueno requested that I show him all of the extended techniques I thought that went beyond the standard repertoire. Once he became acquainted with most of the sounds I had to offer, we then collaborated on ways to combine different techniques in the hopes of creating new sounds. Many of the sounds in *Fanfares for the Apocalypse* directly result from this collaboration. He decided on some of the sounds and musical atmosphere he wanted to create based on the recordings we made and my personality as a musician, which he then transcribed into custom notation. Other means of collaboration were via e-mail and video clips. Adjustments and edits to the score were made as needed in order to facilitate a reliable way of producing the intended sounds and delivering a clear musical idea. This process continued up until the final days of rehearsal before the premiere.
I will also explain how I designed, hand built, and tuned three percussion instruments upon Ken Ueno’s request involving eighteen tuned microtonal copper pipes. I would be remiss if I did not acknowledge that the percussion instruments also involved the design skills of my father, Pierre Brunet, an electrical engineer and audio speaker designer. I will show how the instruments were acoustically optimized and built to project the sound of the copper pipes as clearly as possible. Details of the design and construction method will be provided in the appendix.

In Chapter 5, a catalogue of extended trumpet techniques for *Fanfares for the Apocalypse* is provided using an adaptation of Cherry’s template for learning extended techniques. Each technique includes an explanation, notation clarification, score examples, challenges to the performer, and suggestions for practice to develop consistency.

The performance guide in Chapter 6 is inspired by concepts originating from Professor Edward Carroll’s guide to learning repertoire. In order to codify what can be a seemingly impossible task of learning difficult new music, Carroll recommends a five-step method. The player should learn the rhythm, followed by notes, intonation, editorial (detail), and finally, interpretation. Examples from the score are included to explain the extended techniques are used, technical challenges, practice and style suggestions for *Fanfares for the Apocalypse*.

---

The dissertation concludes with a summary of the materials covered, information that can be used to access a recording of the premiere and a copy of the score, and supplemental materials including excerpts from Ken Ueno’s autograph manuscript of *Fanfares for the Apocalypse*.

**Example 3.1: Pitch Classification**

```
\begin{center}
\begin{tabular}{cccc}
C1 & C2 & C3 & C4 \\
\hline
C5 & C6 & C7 & C8 \\
\end{tabular}
\end{center}
```
CHAPTER 4

HISTORY OF FANFARES FOR THE APOCALYPSE

In July of 2013, I had the distinct pleasure of meeting Ken Ueno while attending the Atlantic Music Festival on Fellowship in Waterville, Maine. Ueno was serving as a member of the esteemed composition faculty including colleagues such as Robert Paterson, George Tsontakis, and Eric Ewazen. Part of my role as an Atlantic Music Festival Fellow was to perform with the orchestra and with a brass quintet. The latter ensemble is where I first encountered Ken Ueno. The Fellowship brass quintet had programmed Ueno’s outstanding piece, Zero Cosmology, originally commissioned and recorded by the Atlantic Brass Quintet. On several occasions leading up to the performance, Ueno coached the brass quintet. Working with the composer illuminated and informed our interpretation of his compositional and musical identity. Ueno was pleased with our preparation for the performance as well as the actual performance. We celebrated at a post concert gathering. A discussion of new music ensued where Ueno, a violinist, and I decided to have an impromptu improvisation session the next day. During the improvisation session, we explored the nature of sound and experienced spontaneous moments of deep musical interaction. Later that month, I had the opportunity to perform Luciano Berio’s Sequenza X for Trumpet in C and Robert Erickson’s Kryl. After the performances, Ueno and I discussed our thoughts on the sound potential of the trumpet and the state of its repertoire. The next day, Ueno approached me and expressed interest in writing a person-specific piece featuring me as the soloist. The thought that such an accomplished and unique composer wanted to write a piece for me was both thrilling and
humbling. We agreed based on his commission load at the time that Fall 2015 would be our target for the premiere. With that, the process of finding an ensemble and appropriate venue began.

Soon after the Atlantic Music Festival ended, I began my studies as a Doctoral student in Trumpet Performance at the University of Miami’s Frost School of Music under the tutelage of Professor Craig Morris. The school’s willingness to support student ideas and projects impressed me; with this in mind, I proposed the idea of Ueno’s piece to then Professor and Director of Bands, Gary Green. Professor Green was intrigued with the idea and agreed to help make the piece a reality. After some conversations between Ueno, Green, and myself, we decided to have the piece written for solo trumpet and wind ensemble. Professor Green retired in the spring of 2015 and, as a result, Ueno and I needed to explore other options for the premiere. After much deliberation, I decided to write a proposal to the Henry Mancini Institute to commission the piece’s premiere. The Henry Mancini Institute, under the direction of Professor Stephen Guerra, was wonderfully supportive of the project and agreed to commission and premiere Ken Ueno’s new trumpet concerto.

Throughout the spring and summer of 2015 leading up to the September premiere, Ueno and I remained in close contact. We discussed ideas and concepts to be included in the concerto, and, in June 2015, I flew to San Francisco, California to discuss and workshop the piece in person. While there, I had the honor of performing a solo recital at The Center for New Music featuring Luciano Berio’s Sequenza X, Robert Erickson’s Kryl, Karlheinz Stockhausen’s Harmonien, and two pieces that had been written for me. The first was Arch of Basalt and Ivy Pulse I, a piece for solo flugelhorn by Thanos
Chrysakis, a London, England based composer. The other, *Switch*, a piece for trumpet and electronics by Remy Siu, a composer based in Vancouver, Canada. Stephen Smoliar of the *San Francisco Examiner* reviewed the recital, stating that “Virtuosity was decidedly the order of the evening.” He also wrote that the performance showed a prodigious display of control.38 In the days following the recital, Ueno and I workshopped sounds and concepts to be used in the concerto. Ueno video documented the sessions where I demonstrated non-idiomatic techniques for the trumpet including performing throat singing while playing, multiphonics, range extremes, microtones, timbre manipulations, circular breathing, and non-traditional articulation among others. During the session, Ueno suggested that I throat sing while playing a double pedal C2. This unique sound eventually became one of the main compositional elements for the concerto. The weeklong collaboration also resulted in the development of the flutter ram technique as well as extended use of circular breathing. Ueno found additional inspiration for the concerto from Nigel Morgan’s: *Illuminating the End of Time: The Getty Apocalypse Manuscript*. This work contains pictures and descriptions of the medieval period and includes an account of the seven trumpets of the Apocalypse. I flew home from this trip with utter excitement and anticipation of what Ueno would write.

Ueno began sending me notated sketches of parts of the concerto in July 2015. The first sketches eventually became the opening at mm. 72 and the cadenza beginning at mm. 334. He continued sending short excerpts for about a week until he started sending entire sections of the concerto. By early August, he had completely composed the solo

---

trumpet part to *Fanfares for the Apocalypse*. During this time, Ueno, Guerra, and I discussed instrumentation and staging options. Guerra was very supportive and allowed free rein over the size of the ensemble and performance space.

By late July, the final instrumentation was determined on fourteen players, the soloist, and a conductor. The final instrumentation is as follows: three flutes, two clarinets, four French horns, two trombones, and three percussionists. The duration of the concerto was decided to be about 15 minutes. Ueno also devised a plan to exploit the inherent directionality of the trumpet by creating a spatial organization of the musicians that would surround the audience. The flutes and French horns were placed at various points around the audience, while the clarinets, trombones, and percussion were spaced to take up nearly the entire stage. Ken Ueno completed the orchestration by the second week of August, in time for ensemble rehearsals for the concerto beginning on August 24, 2015.

Ken Ueno’s music often contains microtonal and spectral aspects. To this end, Ueno called for eighteen custom tuned copper pipes in *Fanfares for the Apocalypse* to create the sound world of the concerto. He specified that the copper pipes be tuned to distinct frequencies accurate to a thousandth of a Hertz. These pipes created the foundation of the concerto’s unique microtonal sound world. As a result, three custom percussion instruments were designed and built; each holding six uniquely tuned copper pipes.

In order to accomplish this huge undertaking of the design and construction of custom percussion instruments, I enlisted the help of my father, Pierre Brunet, a retired electrical engineer and audio speaker designer. We discussed the need to create an
appropriate resonating chamber to ensure projection of the copper pipes when struck with a mallet. With this in mind, Pierre Brunet designed an acoustically optimized resonating box with variable depth based on frequency of the pipes to aid projection. Once the design was complete, the process of building the instruments began and took about one week to complete. I built the instruments out of three, two by four foot sheets of \( \frac{3}{4} \)” thick pinewood cut to the precise measurements of my father’s design. The pipes were supported by carefully placed rubber bands on top of three-inch framing nails wrapped with electrical tape to serve as a buffer between the pipes and the wood.\(^{39}\) The pipes were hand-tuned by using a metal file and strobe tuner to a tolerance of .3Hz of the desired pipe frequency. I tuned the pipes in ascending order (longest to shortest) to avoid material waste in the case that I filed off too much causing the pipe to become sharp in frequency and thus, unsalvageable. Instead, I measured the pipe in question to become the next pipe in the ascending order. This method resulted in minimal material loss. The instruments were completed and ready one day before the first rehearsal.

Rehearsals for *Fanfares for the Apocalypse* began on August 24, 2015 with full ensemble and Masters degree conducting student and Henry Mancini Institute Fellow, Alexander Magalong conducting. Initial rehearsals were spent learning how the piece would fit together. Magalong’s rehearsal process was meticulous and efficient. He isolated potential ensemble issues and provided succinct and helpful suggestions. Each rehearsal saw drastic improvements in ensemble and interpretation. Despite the initial difficulties of preparing a never-before-heard piece, the ensemble maintained a positive and open-minded attitude that was further fostered by Ueno’s electric presence at the final three rehearsals.

\(^{39}\) See Appendix A.
Fanfares for the Apocalypse was premiered on September 26, 2015 in Gusman Hall, at the University of Miami as part of a New Music concert featuring the Henry Mancini Institute. The concert opened with Focus by Eddie Sauter featuring Professor Gary Keller playing tenor saxophone with string orchestra conducted by Professor Scott Flavin. Following an intermission, the concert concluded with the world premiere performance of Fanfares for the Apocalypse with a duration of about 15 minutes. Based on the audience reaction of boisterous applause and fervent discussion of the piece afterward, the premiere was a resounding success.
CHAPTER 5

CATALOGUE OF EXTENDED TECHNIQUES

This chapter contains a catalogue of extended trumpet techniques used in Ken Ueno’s *Fanfares for the Apocalypse*. Extended techniques are typically categorized as non-idiomatic sounds that have been defined for the instrument. Extended techniques are often considered curiosities or tricks. In actuality, they are sounds like any other employed by the composer and artist to convey a musical message. This chapter codifies the extended techniques used in the concerto by breaking them down to the essence of their sound with explanation of how they can be learned. Some of the extended techniques explained were developed through collaboration with the composer. One such technique developed as a result of this collaboration is throat singing through the trumpet while playing a double pedal C2. This technique was implemented in the piece because it was a sound that was musically important to the composer. The flutter ram technique was also developed through conversation and experimentation on the trumpet with the composer as well as the unique application of multiphonics often involving microtonal harmonies. Although the concerto was composed with my specific skill sets in mind, it is not intended to be exclusive to other performers.

This catalogue systematically details fifteen extended techniques. Each technique is broken down into five main points of discussion derived from Cherry.\(^\text{40}\) First, an explanation of the technique at hand will describe the nature of the sound and how it is produced. Next, a notation clarification section will show the specific notation that Ueno

devised for each sound and technique. Third, score examples will show the techniques in a musical context for better understanding. Fourth, suggestions for practice are provided to help the player build the technique required to produce the musical sound. Finally, the fifth section will describe challenges to the performer with the intention of helping the player anticipate potential issues that may arise due to lack of familiarity with the technique.
Table 5.1: List of Extended Techniques

List of Extended Techniques Included in the Catalogue

<table>
<thead>
<tr>
<th>Technique</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Air Flutter</td>
<td>34</td>
</tr>
<tr>
<td>2. Air Sound</td>
<td>36</td>
</tr>
<tr>
<td>3. Alternate Fingerings</td>
<td>38</td>
</tr>
<tr>
<td>4. Bell Direction</td>
<td>40</td>
</tr>
<tr>
<td>5. Circular Breathing</td>
<td>42</td>
</tr>
<tr>
<td>6. Double Pedal C</td>
<td>46</td>
</tr>
<tr>
<td>7. Flutter Ram</td>
<td>48</td>
</tr>
<tr>
<td>7. Hocket Vocalizations</td>
<td>50</td>
</tr>
<tr>
<td>9. Inhale on Air</td>
<td>52</td>
</tr>
<tr>
<td>10. Inhale on “huh”</td>
<td>55</td>
</tr>
<tr>
<td>11. Microtonal Notation</td>
<td>57</td>
</tr>
<tr>
<td>12. Multiphonics</td>
<td>59</td>
</tr>
<tr>
<td>13. Notated Valve Combinations</td>
<td>67</td>
</tr>
<tr>
<td>14. Random Keys</td>
<td>69</td>
</tr>
<tr>
<td>15. Throat Singing</td>
<td>72</td>
</tr>
</tbody>
</table>
1. Air Flutter

Explanation of Technique

The air flutter is produced by flutter tonguing while blowing only air through the instrument. The lips should be slightly separated and not buzzing. The lips are separated to allow for better projection and to prevent accidental lip vibration. The flutter tongue is performed by gently pressing the tongue against the soft palate just behind the teeth, allowing it to roll with the air.

Notation Clarification

Example 5.1: pg. IV

The air flutter is sometimes notated with the term “air flutter,” and always with tremolo slashes through the stem with square note heads.

---

Challenges to the performer

The act of rolling the tongue in order to achieve an even flutter can be difficult. If the performer is unable to flutter tongue, an alternative means of producing the desired sound may be used such as the growl.

Suggestions for Practice

In order to develop consistent flutter tongue attacks, a good way to practice is with a metronome. For example, air flutter for two beats and rest for two beats before beginning again. Practicing scales covering the range of the instrument while flutter tonguing will help develop a more relaxed flutter and better overall breath support.
2. Air Sound

Explanation of the Technique

In order to produce the correct air sound for the concerto, the performer’s embouchure should be formed as if to produce a regular sound but with the lips slightly separated. The result should be an intense “ffh” sound through the trumpet with audible distortion present from the resulting air turbulence.

Notation Clarification

The notation below delineates air sounds: a square, filled in note head with a normal stem on a C2. The indications, “air,” and “ffh,” are found directly above the first occurrence of the sound in the score. Fingering should be open unless otherwise indicated.

Example 5.3: pg. IV\textsuperscript{45}

This example shows the square note head notation used for air sounds.

Score examples

Example 5.4: mm. 72-75

Challenges to the performer

The main challenge to the performer is to produce the air sound without accidentally buzzing the lips. Since the embouchure is formed with the lips only slightly separated, it is quite easy to accidentally buzz the lips resulting in a tone.

Suggestions for practice

By far the most significant issues here are the chances of accidentally producing a trumpet sound due to the lips coming together. An effective way to practice this sound is to perform attack exercises on the air sound with a metronome, much like simple attack exercises necessary to play the trumpet.
3. Alternate Fingerings

Explanation of Technique

Alternate fingerings are sometimes notated in the score indicating a change in timbre as explained by the trumpet key found in the score of *Fanfares for the Apocalypse*. Although the fingerings inevitably create a change in intonation, they also create a consistent variance in timbre.

Clarification of Notation

Example 5.5: pg. IV⁴⁶

In example 5.5, the numbers above a specific note indicate the fingering that is to be used. For example, “13” would be first and third valve, “12” would be first and second valve.

Score Examples

Example 5.6: mm. 184-187

The C5-sharps found in mm. 186-187 all have a specific alternate fingering marked above the notes with the intention of changing the timbre of the note with natural variations in intonation.

Challenges to the Performer

The main challenge to the performer will be to gain familiarity with the alternate fingerings and to prevent from adjusting for intonation. Since many of the passages are performed in a very rapid manner, it is important to acquire fluency with the alternate fingerings. The performer must use the alternate fingerings and allow the note to be played naturally so that the differences in timbre become apparent to the listener.

Suggestions for Practice

Slow and isolated passagework with a metronome that involves alternate fingerings is the best way to learn the technique. Score study will also help internalize the required alternate fingerings.
4. Bell Direction

Explanation of Technique

In *Fanfares for the Apocalypse*, instructions for specific bell direction are used to direct the performer to point his bell on the horizontal plain either sixty degrees to the left, sixty degrees to the right, or centered. Bell direction instructions bring a sense of drama to the concerto and demonstrate the directional nature of the trumpet. Changing the direction of the bell especially when combined with microtonal multiphonics, can change the listener’s perception of the sound itself.

Clarification of Notation

Example 5.7: mm. 355-362

The horizontal arrows pointing to the right indicate a transition of bell direction from whatever came before to the following bell direction. Beat three of mm. 355 shows the bell as pointing sixty degrees to the right followed by a transition over six beats to the bell direction sixty degrees to the left, and again transitioning over six beats to a centered bell position as indicated by an arrow pointing upward.

Score Examples

Example 5.8: mm. 371-378

Measure 371 in this example indicates an instruction to suddenly change the bell direction to the right, followed by a series of bell direction transitions.

Example 5.9: mm. 395-396

This example demonstrates explicit instructions to quickly move from left to right, gradually reducing the distance swung off axis, eventually stopping at center. This gesture is analogous to a pendulum swinging, eventually returning to its equilibrium position.

Challenges to the Performer

There are some notable challenges one confronts with bell direction instructions. The player must maintain eye contact with the music as well as rotate the body without allowing the motion to compromise fundamental trumpet technique.
Suggestions for Practice

It is advised to become familiar with the physical act of rotating the torso in measured time. To do this, the player should isolate the movements themselves without playing the trumpet or using the voice. The player should rotate on the balls of the feet to ensure freedom of movement and minimal disruption of the mechanics of trumpet playing. It may be helpful to think about rotating from the legs and knees as opposed to the torso. Focusing on the gesture in this way increases the odds of successful movements when other techniques are added.

5. Circular Breathing

Explanation of the technique

Circular breathing is defined by White as, “A technique by which a continuous tone is sustained on a wind instrument. While it is physiologically impossible to breathe in and out simultaneously, a player may, by filling the cheeks and squeezing the air from them, maintain air pressure, and therefore tone, while taking a breath through the nose.” 48

Circular breathing enables the performer to sustain a sound indefinitely or until embouchure fatigue forces the player to stop.

Clarification of Notation

Example 5.10: mm. 334

Circular breathing in the concerto is marked “circular breathe” above the sections where it is required.

Score Examples

Example 5.11: mm. 127-128

Circular breathing with ad lib on inhale (through the trumpet) is advised during extended periods of throat singing and double pedal C2.

Example 5.12: mm. 129-132

The player will most likely need to circular breath as needed when playing the double pedal C2.

Example 5.13: mm. 334-338

Circular breathing is employed starting at measure 334 and continues through measure 396.

Challenges to the Performer

A challenge of learning how to circular breath is to prevent the throat from closing while inhaling through the nose and simultaneously expelling air from the cheeks. Circular breathing can be learned away from the trumpet by using a cup of water and a straw. The player holds the straw with the lips and blows continuous bubbles into the cup
of water. The goal is to be able to maintain a steady stream of air bubbles while circular breathing. Diligent practice will allow the player to learn the proper timing of nasal inhalation while expelling air from the cheeks.

It is important to maintain pitch center while circular breathing. A relaxed and smooth air stream will aid in maintaining a stable pitch center.

The most demanding use of circular breathing in the concerto starts at mm. 334 and continues through mm. 396 where the player must hold an E5 while performing multiphonics. With a metronome marking of 60 beats per minute, this section is approximately four minutes in duration.

**Suggestions for Practice**

It can be helpful to practice circular breathing by taking it out of musical context. Applying the technique to exercises such as basic long tones and H.L. Clarke’s Technical Studies\(^5\) is helpful in learning the proper technique. The good habits acquired by playing these exercises while practicing circular breathing will ease the learning process. The range of notes that the player is able to play while circular breathing should be expanded from the middle register outward. As registers change, so will the timing of the breath and pressure in the cheeks.

In order to acquire the necessary endurance for m. 334 through m. 396, it is helpful to use a stop-watch and a drone tone with a metronome to track how long the player is able to hold a given note with a resonant tone and consistent pitch. The drone tone aids in maintaining pitch during circular breathing. It is helpful to first gain this endurance on a lower note, such as a G4. By practicing the technique on a lower note, the

stress on the embouchure will be less severe. Little by little, the player should try to hold the note longer until the circular breathing lasting four minutes is achieved. When this is achieved, the player should transpose up by half-step and restart the process of building the necessary control and endurance. This process should continue until the E5 natural-seventh from the concerto is reached.

6. Double Pedal C

Explanation of the Technique

The double pedal C2 is a concert C sounding two octaves below middle C4. An embouchure shift may be necessary in order to produce the note. However, the performer should strive to minimize any sort of shifting so that he can quickly return to a normal embouchure setting.

Notation Clarification

Example 5.14: mm. 96-97

The double pedal C2 is notated below the bass clef.

---

Score Examples

Example 5.15: mm. 103-104

This example shows the double pedal C2 performed with sforzando accents.

Challenges to the Performer

Challenges to the performer in producing a double pedal C2 will vary depending on if the player is capable of producing the correct note in the context of a musical composition. If not, then it is essential to learn how to produce a focused and resonant sound on a double pedal C2.

Suggestions for Practice

The development of the double pedal range should always be the result of an expansion of the middle register downward. Therefore, double pedal C2 is best achieved by maintaining a middle embouchure setting that is flexible and relaxed.

Several effective pedagogical tools exist from the teachings of Carmine Caruso, James Stamp, Laurie Frink, and Pierre Thibaud. These schools of trumpet focus on

---

developing maximum efficiency of sound and resonance aiding in extending the range of the trumpet player into the extreme upper and lower registers.

7. Flutter Ram

Explanation of the Technique

The flutter ram is a more percussive version of the air flutter. While performing the flutter ram, the tongue should repeatedly rebound off the inside cup of the mouthpiece. The mouthpiece should go slightly inside the top lip to help create the appropriate un-pitched, percussive intensity in the sound.

Clarification of Notation

Example 5.16: mm. 82

Flutter rams are notated using triangular note heads with tremolo markings through the stem.

---

Score Examples

Example 5.17: mm. 80-83

Shown here, the flutter ram is preceded by an air sound and followed by a double pedal C2.

Challenges to the Performer

A major issue performing the flutter ram technique is the need to quickly change the mouthpiece position in a rapid manner so that the outside rim is placed on the inside of the top lip. The transition from a regular trumpet embouchure to the flutter ram position must be rapid and fluid.

Suggestions for Practice

It is helpful to practice quick transitions from the flutter ram position to the regular trumpet embouchure position. Experimentation will be necessary to find the appropriate mouthpiece and tongue position.
8. **Hocket Vocalizations**

**Explanation of Technique**

The use of hocket is defined by the Oxford Dictionary as, “A spasmodic or interrupted effect in medieval and contemporary music, produced by dividing a melody between two parts, notes in one part coinciding with rests in the other.” \(^{57}\) *Fanfares for the Apocalypse* uses hocket in combination with regular played trumpet, voice, and air sounds. These hocket vocalizations often occur in quick succession and include precise sung pitches and rhythm.

**Clarification of Notation**

**Example 5.18: mm. 236\(^{58}\)**

![Musical notation example](image)

This example demonstrates hocket vocalizations in a musical line. This is one of the most rapid transitions from sung pitches, playing, air sound, back to sung pitches, and finally back to playing.

---

\(^{57}\) http://www.oxforddictionaries.com/us/definition/american_english/hocket

Score Examples

Example 5.19: mm. 157

Example 5.19 shows a played pedal F3 directly preceding a sung F3 and concluding with another played F3. Although the F3 is constant, the means of sound production alternating between played and sung pitches result in a hocket.

Example 5.20: mm. 220-224

Example 5.20 shows hocket vocalizations used to contrast the main line on the top stave.
Example 5.21: mm. 271-275

Example 5.21 demonstrates a dual function of the hocket vocalization. The sung A³ in measure 273 provides a temporary respite for the lips as well as harmonic material.

Challenges to the Performer

Challenges found in performing hocket vocalizations include rapid alternation of mouthpiece placement when going from playing to singing, the necessity of singing accurate pitches in a musical context, and the coordination of each individual technique.

Suggestions for Practice

Hocket vocalizations should be practiced at very slow tempi. They should also be isolated to ensure accuracy and a full understanding of the musical line. The hocket vocalizations must be executed in rhythm as if there were no special techniques involved. The hocket aspect of these lines must be smooth and effortless in order for the phrase to be effective and coherent to the listener.

9. Inhale on Air

Explanation of Technique

Inhale on air sound is a technique used to allow the player to breathe during a drone note such as throat singing while producing a continuous sound. Inhale on an air
sound is produced by reversing the air sound technique discussed in section 2 of this chapter. The player should inhale through the trumpet with the lips slightly separated while maintaining mouthpiece placement. The corners of the mouth may open a bit to help amplify the sound and to help the player take a fuller breath.

**Clarification of Notation**

**Example 5.22: mm. 113-114**

![Example 5.22: mm. 113-114](image)

Inhale on air is indicated by a square note head with the notation “inhale” marked above the note.

**Score Examples**

**Example 5.23: mm. 123-124**

![Example 5.23: mm. 123-124](image)

---

Example 5.23 shows throat singing followed by inhale on air sound, followed by a multiphonic double pedal C2 and throat sung unison C2.

**Example 5.24: mm. 127-128**

Example 5.24 contains instructions for the performer to inhale on air ad lib while throat singing. Since it is impossible to circular breath while throat singing, the player may breath as needed but should use the inhale on air technique to maintain a constant production of sound.

**Challenges to the Performer**

The act of inhaling through the trumpet adds quite a bit of resistance to the inhalation. Therefore, the player must inhale with much greater intensity than when taking a regular breath. Maintaining the mouthpiece position with open corners to maximize air intake while inhaling through the trumpet is counter intuitive to basic brass playing and must be practiced extensively.
Suggestions for Practice

Since the performer will be inhaling through the trumpet, it is advised that the performer maintain proper instrument care by cleaning it regularly. This will minimize the potentially foul smell and taste experienced by inhaling through the trumpet. A relatively clean trumpet will help prevent this potentially unpleasant experience.

To practice inhale on air sound technique, find the balance of open corners of the mouth to inhaling through the trumpet to maximize airflow and reduce the potential for breathing in foul odors.

10. Inhale on “huh”

Explanation of the Technique

This sound is an audible rhythmic inhalation on the syllable “huh” while bypassing the trumpet. The voice is slightly engaged on inhale to help articulate the ingressive “huh” vocalization. The inhaled “huh” sound should be similar to that of a gasp when startled.
Clarification of Notation

Example 5.25: mm. 84

The notation used for inhaling on “huh” is a square head eighth note featuring an arrow pointing toward the instruction to inhale with “huh,” followed by a dynamics indication marked directly under the note.

Score Example

Example 5.26: mm. 127

The example shows inhale on “huh” notated between phrases using throat singing.

---

Challenges to the performer

When attempting this sound for the first time in a musical context, the player may encounter difficulty transitioning from exhaling to inhaling with voice engagement and back to whichever sound is demanded.

Suggestions for Practice

First, develop a consistent execution of the correct sound out of context so that the gesture is internalized. Next, practice it slowly in a musical context from the concerto with a metronome and work on the transition from exhaling to inhaling.

11. Microtonal Notation

Explanation of the Technique

Microtonal notation is used throughout the concerto. The non-equal tempered pitches each require alternate fingerings and use of slides to aid with fine-tuning. Appropriate fingerings will vary due to differences in trumpet design and by the performer’s preference.

Clarification of Notation

Example 5.27: pg. II

---

Score Examples

Example 5.28: mm. 297-299

An accidental using microtonal notation precedes nearly every note in this example.

Challenges to the Performer

Initial challenges to the performer will depend on the performer’s familiarity with reading microtonal notation, as well with familiarity of the appropriate alternate fingerings and corresponding slide positions. Aural familiarity with the unconventional intonation is needed to help the performer correctly place the note in a musical context.

Suggestions for Practice

It can be helpful to mark the fingerings and valve slide positions in the score for each note that requires a special manipulation of intonation. After some time, the fingerings should become second nature and the player should be able to hear where the note should be placed with general ease. The ideal fingerings and valve slide positions will vary slightly by instrument and player. Slow practice with a metronome, careful attention to intonation, and score study should be the principle means of building this skill set.
12. Multiphonics

Explanation of Technique

Multiphonics in *Fanfare for the Apocalypse* are frequent and varied. The *Grove Dictionary of Music* defines multiphonics as, “...sounds generated by a normally monophonic instrument in which two or more pitches can be heard simultaneously.” In brass playing, multiphonics are achieved by playing a note and engaging the voice to sing above, below, or in unison with the note being played. In addition to the aforementioned ways to perform a multiphonic, *Fanfares for the Apocalypse* incorporates microtonal multiphonics. Ueno also uses vocal glissandi sometimes covering nearly an octave or a full octave to create a sound similar to a wave modulation. For the purposes of this document, a glissando with voice covering an interval larger than a third will be described as a vocal sweep.

Clarification of Notation

Example 5.29: mm. 171-172

---


Multiphonics are notated using diamond shaped note heads. The notation is universal in the concerto for any note indicating a sung pitch regardless of whether it is used as a multiphonic or a sung pitch alone. The cadenza starting at measure 334 is the sole exception to this where the sung pitch is moved to the bottom stave and uses regular notation.

Example 5.30: mm. 334-338

In the final section beginning at measure 334, Ueno indicates “sing” above the first sung pitch of the section in measure 338 using regular notation. A treble grand staff is used as pictured above.
Example 5.31: mm. 338-340

From mm. 334, sung and played pitches are featured on the bottom and top stave, respectively. This facilitates ease of reading since the majority of sung pitches are within a whole step of the played pitch.

Score Examples

Example 5.32: mm. 109-112

Example 5.32 shows an application of multiphonics while throat singing in unison with a double pedal C2.
Example 5.33: mm. 145

This example shows unison multiphonics with voice on a played F3-sharp.

Example 5.34: mm. 147-148

Example 5.34 shows a played low F3 in the bass clef that starts unison and includes a voice glissando descending a half-step to a sung E3.
Example 5.35: mm. 151

This example shows a played low F3 articulated in unison with a voice glissando ascending a half-step to a sung G3-flat.

Example 5.36: mm. 160

Example 5.36 shows a played low F3-sharp starting in unison with voice followed by a voice glissando descending a half-step and ascending back to the unison.

Example 5.37: mm. 171-172

This example shows a multiphonic where the voice sings a major third below the played B3.
Example 5.38: mm. 191

Example 5.38 shows a multiphonic where the performer sings a minor third above the played F3-sharp.

Example 5.39: mm. 231

The above example shows a multiphonic beginning in unison followed by a vocal sweep of the voice descending a major-seventh to C3.

Example 5.40: mm. 379-384

Example 5.40 shows several different applications of multiphonics, each occurring during the same played E5 natural-seventh. In measure 379, the multiphonic
occurs with a sung F5-quarter-tone sharp above the played E5-natural-seventh. In mm. 381-382, the multiphonic is a vocal sweep descending an octave from unison.

**Challenges to the Performer**

Multiphonics in *Fanfares for the Apocalypse* can be quite daunting due to their extensive use. Often articulated within a phrase, multiphonics should sound easy and fluid. Aural training is essential for accuracy of intervals. The performer should be sure to hear the interval relationships. Correct intonation is essential in order for the sound to resonate with the added voice. An unsteady tone when engaging the voice can become an issue as well, especially at times when the multiphonic uses tighter intervals such as microtones, minor seconds, and whole steps.

Perhaps the most challenging use of multiphonics in *Fanfares for the Apocalypse* occurs at measure 334 and continues until measure 396. Difficulty comes from the higher tessitura of the trumpet in tandem with the voice. Players may experience fatigue and constriction of the throat due to the added stress of singing often in unison with the trumpet. The tone becomes much more difficult to keep steady and in tune as well. This is perhaps the most challenging aspect of the entire concerto.

**Suggestions for Practice**

A methodical approach should be used when practicing the multiphonics in *Fanfares for the Apocalypse*. Each multiphonic variation throughout the concerto should be broken down to its most basic elements. The player should be certain that the intervals are clearly understood. Aural skills may need further development away from the trumpet
to ensure accuracy. Next, the player should layer each technique one by one. For example, in measure 191 from the concerto, a low F3-sharp is notated with a sung A3 above. The player should play the F3-sharp, stop, and sing the A3. If the A3 is accurate, then the player should attempt to sing the A3 while playing the F3-sharp. Eventually the player should be able to articulate the trumpet and engage the voice simultaneously as required in measure 191 and elsewhere in the concerto.

Other ways to practice multiphonics are to improvise sung melodies around a long tone of the player’s choosing. It is usually easier to start with a tone in the low register and a sung pitch above the note. With this approach, the player will experience less resistance in the throat compared to multiphonics in a higher register. Improvisation will help instill confidence in the player’s aural skills, build better accuracy, and improve intonation. For example, the player can play a low G3 and sing intervals such as a fifth or sixth above. The player should listen for the resonant qualities of the multiphonic and try to keep it as relaxed and steady as possible. When these intervals are mastered, the player should continue this method with improvised melodies or scale practice. For example, play a low G3 and sing a diatonic scale. The inverse is also helpful, though more advanced, sing a steady pitch and play a scale over top of it. Improvisation on multiphonics can be a very effective way to build fluency and ease.
13. Notated Valve Combinations

Explanation of the Technique

In Fanfares for the Apocalypse, notated valve combinations are provided on a separate stave above the grand staff. The specific valve combinations are delineated by Arabic numberals that result in consistent variations in timbre and pitch during air sounds, multiphonics, double pedal C2, or throat singing. These musical gestures must be played with precise rhythm and strictly in time to ensure that the idea is clearly conveyed to the listener.

Notation Clarification

Example 5.41: mm. 76-78

In example 5.41, the notated valve combinations are found on a standard percussion staff. Valves one, two, and three are notated on a specific line with a number in the note heads indicating which valve to press.

---

Score Example

Example 5.42: mm. 328

Example 5.42 shows notated valve combinations on air sound. The horizontal arrows found above the percussion stave indicate a gradual transition by slowly releasing or pressing the valves to the proceeding notated valve combinations.

Example 5.43: mm. 125-127

Example 5.43 uses notated valve combinations while simultaneously throat singing and playing a double pedal C2 with an immediate change to only throat singing in beat four of measure 126.
Challenges to the Performer

Challenges to the performer may occur from difficulties associated with reading multiple staves. Each stave is part of the orchestration and must be interpreted with ease to create a musical line.

Suggestions for Practice

The best way to integrate and understand the notated valve combinations is by score study and isolated practice at very slow tempi.

14. Random Keys

Explanation of the Technique

Random keys (valves) notation in Fanfares for the Apocalypse calls for fast and irregular valve combinations. The technique is used in several scenarios: during air sounds, double pedal C2, throat singing, throat singing and playing, and occasionally while the player is inhaling through the trumpet. The rhythm and speed of the random keys should be consistent, but the valve combinations should be as randomized as possible.
Notation Clarification

Example 5.44: mm. 79

Random keys notation is found on the top stave as a sextuplet of headless stems.

The wavy line that follows indicates a continuance of the gesture.

Score Examples

Example 5.45: mm. 84-87

Example 5.45 shows random keys notation used on air sound, rests, and air flutter.
Example 5.46: mm. 121-124

Example 5.46 shows the random keys notation used while throat singing, during a double pedal C2, on an inhale through the trumpet, and later on in a multiphonic including throat singing and playing a double pedal C2.

Challenges to the Performer

Specific challenges to the performer will be to resist the tendency to regulate the randomness of the valves when pressed while maintaining a consistent rhythm.

Suggestions for Practice

The use of a metronome is advised to ensure rhythmic integrity of the random keys. It is essential to listen with the intent of creating a valve sound that is ever changing and never developing a consistent pattern.
15. Throat Singing

Explanation of the Technique

This vocalization is derived from the Tuvan style of Kargyraa, also known as throat singing. This style is described by the Encyclopedia Brittanica as “a low growling that is rich in undertones.” It utilizes the vocal as well as ventricular folds to produce the unique and gritty resonance.

In the context of Fanfares for the Apocalypse, Ken Ueno uses this singing technique as a drone tone to be sung through the trumpet either as the only source of sound or in unison with the double pedal C2.

Clarification of Notation

Example 5.47: pg. IV

Hollow diamond shaped note heads written on C2 below the bass clef indicate throat singing.

---

66 http://www.britannica.com/art/throat-singing
67 (Edgerton, 2015)
Score Example

Example 5.48: mm. 109-112

Example 5.48 shows how the throat singing technique is integrated into the other technical aspects of the concerto.

Challenges to the Performer

Throat singing is possible to learn but it can take a significant amount of diligent practice time to produce the appropriate sound. Some players will have the natural ability to throat sing from the moment they attempt, while others will learn over time, or will simply be unable.

Suggestions for Practice

A video found on YouTube by Johnny Cope offers a step-by-step introductory approach to throat singing and is very helpful in explaining how to learn to throat sing.69 The best way to learn how to do it is to hear it first, imagine making the sound just heard, then attempt it. There may be many failed attempts. Positive results may seem fleeting but disciplined listening and thoughtful application is the only way to learn. Initially,

slight discomfort in the voice may occur. Therefore, it is vitally important to rest the voice and not perpetuate the discomfort. Endurance will improve over time and the discomfort will dissipate. There are many recordings available to listen to this style by well-known ensembles such as Huun Huur Tu and the Alash Ensemble.

When the Kargyraa style is mastered to the point that it becomes reliable to execute, the performer should begin integrating it in the context of the concerto. Use of a metronome when practicing this is highly recommended.
CHAPTER 6

PERFORMANCE PREPARATION GUIDE

This chapter provides a performance preparation guide to Ken Ueno’s *Fanfares for the Apocalypse*. The guide is divided into four subchapters corresponding with four large sections that make up the concerto: measures 72-143, 144-212, 213-333, and 334-400. Each subchapter includes a general overview with score examples. The general overview addresses objective aspects such as rhythm, notes, dynamics, and editorial detail derived from Professor Edward Carroll’s recommendations for learning new repertoire.\(^{70}\) Score examples illustrating particular technical challenges of each section are provided as well as practice and style suggestions. Chapter 5 of this document serves as a reference for further explanation of all the required extended techniques used throughout the piece and discussed in chapter 6.

The process of learning *Fanfares for the Apocalypse* requires great patience and will. It may take several months or more of focused study and practice to learn due to the piece’s physical and technical demands. The fundamental technique required should be built up over time to prevent overuse injury. This performance guide is intended to aid the performer in finding the most efficient path to learning *Fanfares for the Apocalypse* by Ken Ueno. It is no small undertaking.

Measures 72-143

The opening musical material of *Fanfares for the Apocalypse* is bold and atypical of most trumpet concerti. It begins with an array of extended techniques such as air sounds, air flutter, bell directions, double pedal C, flutter ram, inhale on “huh”, microtonal intonation, notated valve combinations, random keys, and throat singing. The musical intensity of this section comes from the seamless delivery of these sounds into a rhythmically coherent and musical line.

Rhythmic integrity in this section is paramount to a successful performance since most of the opening content consists of sounds that are unfamiliar to the listener and very limited in pitch material. The rhythmic content provides structure to an otherwise abstract opening. The best practice for learning the rhythms contained in this section is to study the score without the trumpet so as to fully understand all the rhythmic nuances. Using a metronome while studying the score to internalize the rhythm is highly recommended.

The pitch material in this section is mostly double pedal C2, and throat singing on a C2. It is important that the performer hear the double pedal C2 correctly since the pitch must be placed without a reference point in the solo version of the concerto. The best practice for hearing the pitch before playing is to practice attacks on double pedal C2 with a drone tone. This will help the performer build an aural and physical memory of the double pedal C2 that can then be applied to throat singing on the same pitch. Proper intonation in this section is paramount because the double pedal C2 and throat singing are often in unison. Starting near the end of the section in measure 122, periodic notes derived from the natural overtones of the trumpet in the regular range are heard. Each of
these notes has a specific tuning and must be precisely placed in order to create the soundscape that the composer has envisioned.

The dynamics range from *piano* on air sounds to *fortissimo* on double pedal C2. The stark dynamic contrast between air sounds, double pedal C2, and throat singing gives the opening a dramatic intensity.

It is key in this section to pay careful attention to the techniques required and articulation markings to create a coherent musical line.

**Example 6.1 mm. 72-79**

**Extended Techniques:** The extended techniques used in this excerpt are air sounds, air flutter, notated valve combinations, double pedal C2, inhale on “huh”, and random keys.

---

**Technical Challenges:** Maintaining a smooth musical line while going back and forth between extended techniques in a precise rhythm combined with notated valve combinations is the greatest challenge of this section. Quick inhales between small phrases on off beats will need to be carefully timed to maintain the continuity of the line. Other technical challenges include that of reading three staves simultaneously: bass clef, percussion staff for valve instructions, as well as treble clef.

**Practice Suggestions:** Score study is essential at first to internalize the sound and rhythm before attempting on the trumpet. Following score study, the performer should practice slowly with a metronome while focusing on single measures at a time to ensure an accurate and thorough understanding of the notation. It is also helpful to use a recording device to hear if the sound being created matches the notation in the score upon playback.

**Style Suggestions:** It is important to maintain a constant intensity of sound leading to the dramatic inhale on “huh” sound in measure 79.
Example 6.2 mm. 96-108\textsuperscript{72}

Extended Techniques: Example 6.2 contains air flutter, double pedal C, flutter ram, inhale on “huh”, multiphonics, notated valve combinations, random keys, and throat singing.

Technical Challenges: Transitions from one means of sound production to another may prove to be challenging in this passage. Measures 97-98 include a transition from double

pedal C2 to flutter ram, back to double pedal C2, and then, in measure 99, throat singing is added to produce a multiphonic, then the line transitions to only throat singing, and back to flutter ram.

**Practice Suggestions**: It is important to master each extended technique to a point that it sounds natural and is fluid in execution. As in example 6.1, example 6.2 is best practiced in isolation with a metronome to build consistency. Additionally, a drone tone should be used to aid in correct intonation of the double pedal C2 and throat singing.

**Style Suggestions**: Attention to rhythm, *sforzandi*, and accents will help maintain a steady flow of the musical ideas being presented and will impart a sense of structure to the listener. The performer must boldly present each musical idea, especially when throat singing is introduced in measure 99, since this will likely be a sound that the listener does not expect in the context of a trumpet solo.
Example 6.3 mm. 121-128

Extended Techniques: The extended techniques used in example 6.3 are circular breathing, double pedal C2, inhale on air, inhale on “huh”, microtonal notation, multiphonics, notated valve combinations, random keys, and throat singing.

Technical Challenges: Building on example 6.2’s challenge of transitions from one sound to another, example 6.3 continues with the beginning of the transition from mostly pedal tones, throat singing, and various air sounds, to playing in the normal register in measure 122. The challenge here lies in transitioning to the regular embouchure immediately after several bars of double pedal C2 and throat singing multiphonics. Because of this transition, it is important to try to maintain a middle register embouchure.

---

setting while playing the double pedal C2 so as to mitigate the need for a change of mouthpiece placement on the lips.

**Practice Suggestions:** Score study and isolated practice is recommended in order to develop a coherent sense of line in this passage.

**Style Suggestions:** Example 6.3 further develops the ideas set forth in examples 6.1 and 6.2. Therefore, the performer must maintain the intensity of line and sustain the sound unapologetically.

**Example 6.4 mm. 133-143**

---

Extended Techniques: The extended techniques shown in example 6.4 include air sounds, alternate fingerings, bell direction, double pedal C2, inhale on air, inhale on “huh”, microtonal intonation, random keys, and throat singing.

Technical challenges: One of the major technical challenges present here is the compound use of extended techniques. For example, measures 133-136 involves seven extended techniques with up to five used simultaneously. Compound extended techniques create new issues with timing and fundamental control of the trumpet. The addition of bell directions creates an issue with reading the score since the player must temporarily look away from the score while staying in rhythm while producing multiple extended techniques simultaneously. Measure 136 introduces the first use of a rapidly moving line utilizing alternate fingerings. The physical demands on the embouchure, having just played double pedal C2 for an extended period, are extreme. If the middle embouchure setting is maintained for the double pedal C2, the player will likely feel more comfortable when switching back to the regular trumpet range.

Practice suggestions: Diligent score study, as with the rest of the concerto is necessary in order to mentally process and execute each musical and technical demand made on the
player. Once the player is familiar with the notation and understands how the extended
techniques are combined, he should begin with the trumpet. When practicing compound
extended techniques, each sound and gesture should be isolated out of rhythm. The player
should use an additive process with each technique until the correct sound and gesture is
achieved. Then, the player should begin the practice of correct rhythmic timing and ease
of execution and clarity of the musical idea.

**Style Suggestions**: The character of this section should be intense and sustained. A major
change of style begins in measure 136 with the introduction of the quintuplet moving
line. Bell directions occur only once in the first section of the piece, not returning until
the cadenza beginning in measure 334.

**Measures 144-212**

In this section, a vast amount of new material is introduced. The physical
demands on the trumpeter are greatly increased; requiring extreme flexibility, greater
range demands, rapid valve technique, and maximum efficiency of basic tone production
to maintain endurance. From this point forward, throat singing is no longer utilized and
the large majority of the musical material occurs in the regular trumpet range. This
section is on the whole very rapid and includes large angular leaps over an extensive use
of sixteenth note quintuplets. Alternate fingerings are extensively developed as well.
Multiphonics function as harmonic transitional gestures as well as temporary respites for
the player. Overall, this section should sound nimble and rhythmically tight. Hocket
vocalizations are introduced as well.
Rhythmic content in this section generally includes rapid quintuplets, broken quintuplets, brief multiphonic interludes, and angular articulated sixteenth note gestures. The use of quintuplets is frequently juxtaposed with the angular sixteenth note gestures in mixed meters, bringing a certain sense of stability to the listener relative to the tumbling sixteenth note quintuplet gestures. It is important to play the quintuplets as evenly as possible within the beat.

Pitch content in this section is derived from the use of microtonal intonation based on the C overtone series, alternate fingerings, and non-serialized pitches using regular fingerings.

Dynamic instructions range from piano to forte with the majority of the material between piano and mezzo forte.

Accents are used to help show the shape of the musical line in many of the quintuplet gestures. Some sforzandi are used as well in tandem with flutter tongue and multiphonics to create space between moving lines.
Example 6.5 mm. 144-162

Extended Techniques: Example 6.2 includes air sounds, air flutter, alternate fingerings, hocket vocalization, microtonal notation, multiphonics, notated valve combinations, and random keys.

Technical Challenges: This example shows the development of Ueno’s use of alternate fingerings to create variations in timbre. The main challenge is to have a fluent knowledge of the notated fingerings so that the musical line may be defined. The example also includes large leaps requiring extreme flexibility covering over two and a half octaves from low F3 to high D6 as demonstrated in measures 155-156. With few exceptions, this example is nearly all quintuplets with irregular articulations, posing a challenge of coordination and musical flow. The multiphonics used here are often started in unison with the voice glissing above or below the played note, usually by a half-step. Coordination is again an issue since the player must occasionally articulate on a multiphonic in precise rhythm.

Practice Suggestions: Score study of the concerto is essential before the player attempts to play on the trumpet. Visualizing how the sound will be produced is an effective method for learning new sounds and for building coordination. As the score becomes
familiar, the performer may begin to practice with the trumpet using a metronome at a very slow tempo to ensure clarity, precise rhythm, and correct execution of the notation.

**Style Suggestions:** Style and interpretation should be guided by the goal of achieving consistent phrasing. There is very little repetition in this concerto. The performer should embrace this and treat each phrase as a unique statement of ideas comprised of common elements.

**Example 6.6 mm. 174-176**

![Example 6.6 mm. 174-176](image)

**Extended Techniques:** This example contains no extended techniques. Measure 174 includes a flutter tongue but for the purposes of this document, the flutter tongue is considered part of the lexicon of standard techniques on the trumpet.

**Technical Challenges:** The main technical challenge here is to maintain evenness of rhythm.

---

**Practice Suggestions:** Slow practice with a metronome is essential for success at performance tempo. Temporarily ignoring the slur markings and slurring the entire phrase will help target flexibility issues. The same approach may be applied to measures 175-176.

**Style Suggestions:** The style here is defined by emphasizing the difference between the quintuplet figures and the articulated angular sixteenth note gestures.

**Example 6.7 mm. 184-187**

[Image of musical notation]

**Extended Techniques:** In example 6.7, the extended technique called for is alternate fingerings.

**Technical Challenges:** Technical challenges here may appear in executing the irregular articulations using alternate fingerings while maintaining even quintuplets.

**Practice Suggestions:** Slow practice with a metronome to ensure rhythmic stability, clarity of articulation, and clearly delineated changes in timbre as a result of the alternate fingerings is essential.

---

**Style Suggestions:** This phrase should have a forward motion with the articulations serving as a catalyst to the next note grouping. The timbral variations from the alternate fingerings should be expressive and clearly accented.

**Example 6.8 mm. 196-199**

![Example 6.8 mm. 196-199](image)

**Extended Techniques:** Example 6.8 includes air sound, alternate fingerings, multiphonics, and notated valve combinations.

**Technical Challenges:** Technical challenges found here are in the use of articulations over the quintuplet figure as well as quick register changes within the phrase. Another challenge in measure 198 includes an articulated low F3-sharp with a sung low G3 multiphonic while flutter tonguing.

**Practice Suggestions:** Slow practice with a metronome is important in order to properly execute measures 196-197 with special attention given to accents, *sforzandi*, slur markings, and evenness of quintuplets. Additionally, practicing the phrase under tempo and slurred will help the player gain the flexibility required to execute the phrase with

---

relative ease. Measure 198 should be broken down by the technique required and practiced until the sound produced matches the notation.

**Style Suggestions:** The style here should be very light and flowing until measure 198, where the style contrasts the lightness with an aggressive, distorted sound.

**Example 6.9 mm. 204-212**

[Image of musical notation]

**Extended Techniques:** Example 6.9 contains air sound, hocket vocalizations, microtonal notation, and multiphonics.

**Technical Challenges:** Several distinct technical challenges exist in example 6.9. Measures 204-205 contain hocket vocalizations and pedal E3-flat with multiphonics. The player must perform a hocket vocalization by singing a C3 while bypassing the trumpet, articulate a low F3 followed by an articulated pedal E3-flat and sung G3 multiphonic.

---

The E3-flat the drops out with the sung G3 continuing and returns with a played E3-flat under a sung F3 multiphonic. Measure 207 requires agility in the middle register at a piano dynamic and is followed by a sung F3-sharp bypassing the trumpet. The multiphonic found in measure 210-211 challenges the performer to maintain a steady pitch while glissing the voice down a half-step.

**Practice Suggestions:** Score study will help the player visualize the sound and timing needed to play the hocket vocalization. Following, add each sound beginning with the trumpet while using a metronome with the goal of matching the sound heard to the notation on the page. The moving lines in the example should be practiced at a slow tempo with a metronome as well. Several repetitions of each cell may be necessary before the line sounds effortless.

**Style Suggestions:** Showing dynamic contrast in addition to staying in precise rhythm with correct intonation will help bring out the style of this section.

**Measures 213-333**

Measures 213-333 further increase the virtuosic demands on the performer. This section features extensive hocket vocalization, sustained rhythmic drive, huge dynamic contrasts, and has very little physical relief. This section is a continuous build of virtuosic phrasing. There is virtually no repetition of phrasing and no patterns. Ueno mixes microtonal tuning and alternate fingerings along with equal temperament, giving the piece a certain sense of freedom in its gesture while maintaining total control.
Example 6.10 mm. 213-226\textsuperscript{80}

Extended Techniques: Example 6.10 includes hocket vocalizations, multiphonics, and microtonal notation.

Technical Challenges: Starting with measure 213, technical requirements and physical demands are further developed and sustained. Multiphonics with voice glissandi are used in tandem with flutter tongue to add intensity to the sound seen in measure 213 and 216. The use of microtones requires adept knowledge of the appropriate fingerings and

corresponding valve slide positions. Hocket vocalizations increase in frequency of use and become more integrated into the musical line.

**Practice Suggestions:** It is important to thoroughly study the score and imagine how it would sound in performance. Visualization will aid in the coordination of unfamiliar techniques when attempted. When attempting on the trumpet, it is important to remain disciplined by practicing with a metronome at a slow tempo. The player should practice slowly enough that each note, phrase, and section is played with the utmost care and attention to accuracy and detail of editorial markings.

**Style Suggestions:** The style here should remain intense and driving forward. This section begins the transition of a totally microtonal soundscape and should be embraced with confidence.

**Example 6.11 mm. 230-233**

![Example 6.11 mm. 230-233](image)

**Extended Techniques:** Example 6.11 includes hocket vocalization, phonic sweep, microtonal notation, and multiphonics.

---

**Technical Challenges:** Technical challenges rest in the player’s ability to accurately hear the microtonal nature of this section and to execute consistently. There are very few rests in this section so the player must remain relaxed and efficient in order to mitigate fatigue. The first occurrence of the phonic sweep in measure 231 is a very unique sound in the concerto and should be totally clear to the listener. An accurate presentation of this sound will create a dramatic intensity for the phrases that follow.

**Practice Suggestions:** Score study of this section is helpful to become totally familiar with the notation, rhythm, and to visualize the timing of technique required in executing the phrases accurately and consistently.

**Style Suggestions:** The style here should be intense, forward moving, and declamatory.

**Example 6.12 mm. 234-246**

---

Extended Techniques: Example 6.12 includes air sounds, hocket vocalizations, inhale on “huh”, and microtonal notation.

Technical Challenges: Measure 234-246 is one of the most technically challenging sections in the entire concerto due to the use of rapid hocket vocalizations including voice and air sounds. Air sounds within hocket vocalization require particular attention to projection and evenness of phrase. Pedal E2-flat is utilized in this section as well requiring the player to quickly transition from the pedal register to the middle register.

Practice Suggestions: The coordination of hocket vocalizations should be realized by careful score study followed by very slow practice with a metronome. Accuracy of pitch and continuity of phrase is paramount for the success of this section. Control of the pedal E2-flats can be attained through practicing arpeggios and scales from the middle register down to the pedal register. The pedal register, although sounding different in terms of timbre when compared to the middle register, should be an extension of the middle register.

Style Suggestions: This section should be performed with a sense of agility and ease to bring out the playful nature of the hocket vocalizations.
Extended Techniques: Extended techniques in example 6.13 consist of hocket vocalizations, and microtonal notation.

---

Technical Challenges: Example 6.13 features frequent microtonal notation requiring precise alternate fingerings and valve slide positions. The hocket vocalizations occur on sung low A3’s and must be in tune in order to enforce a sense of harmonic structure. Measure 252 features a pedal A2 articulated within the phrase which poses a challenge of maintaining one continuous line while going from the middle register into the pedal register for the pedal A2, then immediately back to the middle register.

Practice Suggestions: Learning this section may take a significant amount of time before it becomes comfortable to play. It is important to study the score and visualize the sounds required to play what is on the page. Slow, isolated practice will train the performer to understand how it fits together and what the musical flow should be.

Style Suggestions: Aspects of style may be developed by paying special attention to dynamic markings, creating a continuous line, and showing clear differences between quintuplet sixteenth note rhythms.

Example 6.14 mm. 268-275

**Extended Techniques:** Example 6.14 includes hocket vocalizations and microtonal notation.

**Technical Challenges:** Example 6.14 includes extensive use of microtonal notation with several leaps between microtonal pitches. Measure 271 has a leap of more than an octave requiring great control and flexibility. Measure 274 contains a leap of more than two octaves within a phrase containing a hocket vocalization.

**Practice Suggestions:** Score study and careful practice with a metronome will help the player understand the shapes of the phrases. The flexibility and fluidity required here will come from practicing the lines slurred and very slowly. This will give the player the confidence to leap without hesitation.

**Style Suggestions:** The style of example 6.14 can be developed by paying special attention to the crescendi and diminuendi within the phrases and emphasizing the dynamic contrast. This will give a virtuosic direction to the line and help improve air flow required for good sound production.

**Example 6.15 mm. 276-279**

---

**Extended Techniques:** Example 6.15 includes the use of alternate fingerings and microtonal notation.

**Technical Challenges:** Example 6.15 shows an application of alternate fingerings and microtonal notation in measures 277-279 applied to a lyrical phrase in the upper register. The challenge here will be to resist the tendency to correct the intonation to equal temperament.

**Practice Suggestions:** Slow practice with a metronome while paying special attention to playing with a lyrical approach will be helpful here. The performer should clearly define the intonation for the alternate fingerings and microtonal notation and be sure to prevent from adjusting to equal temperament.

**Style Suggestions:** The passage in example 6.15 should sound as lyrical and effortless as possible.

**Example 6.16 mm. 284-296**

---

**Extended Techniques:** Example 6.16 includes air sounds, air flutter, hocket vocalizations, and microtonal notation.

**Technical Challenges:** Example 6.16 further develops the extensive use of microtonal notation in conjunction with hocket vocalizations. Additionally, many of the gestures in the example require leaps of more than an octave and must be performed in precise rhythm.

**Practice Suggestions:** Score study focusing on a thorough understanding of the intervals will help the process of learning this section. The use of a metronome is also important in order to help keep the rhythm even since it is almost all in a duple feel rather than the quintuple feel so common in other parts of the concerto. It is important to resist the tendency to rush the rhythm in this section. The hocket vocalizations should be isolated and practiced slowly to ensure pitch accuracy and fluidity of line.

**Style Suggestions:** The style in example 6.16 is different than the rest of the concerto since the rhythmic content is shifted to a duple feel providing more grounding to the phrase. In contrast, the sections featuring mostly quintuplets have a feeling of constantly falling forward into the next line.
Example 6.17 mm. 297-308\textsuperscript{87}

Extended Techniques: Example 6.17 includes hocket vocalization and microtonal notation.

Technical Challenges: Technical challenges in example 6.17 mostly stem from the need to fully integrate the microtones into the phrase. The upper tessitura of the phrasing might also pose a serious challenge of endurance to the player, especially since this section happens very late in the concerto when the performer may already be suffering from fatigue.

Practice Suggestions: It is important to begin learning this section by first studying the score to internalize the rhythm and pitch material before applying it to the trumpet. An aural understanding of the notes and intervals is paramount to being able to perform them.

on the trumpet. Once a certain degree of understanding is attained through score study, the performer should then begin attempting the section on the trumpet, paying careful attention to intonation, corresponding fingerings, and valve slide positions. Preparation for the physical demands of this section should occur out of context of the music and as early as possible.

**Style Suggestions:** Careful attention to rhythm, dynamics, crescendi and diminuendi will aid in maintaining a forward moving and emotive phrase. By doing this, the performer will project a sense of structure to the listener.

**Example 6.18 mm. 309-333**

---

**Extended Techniques:** Example 6.18 includes air sounds, air flutter, hocket vocalization, inhale on “huh”, microtonal notation, and notated valve combinations.

**Technical Challenges:** Although this section does not contain moving lines, it does pose the real challenges of endurance and of articulating microtonal notes in the upper register at soft dynamics. The performer must also be able to articulate a pedal G2 while flutter tonguing with a transition to air sound. Measure 320 includes an articulated high D6-quarter-tone-sharp with transition to air sound.

**Practice Suggestions:** Score study is helpful at first while becoming familiar with the notation, but the real issue is endurance and control in the upper register. It is important to practice this section outside of the musical context in order to find the balance of
resistance so that the notes in the upper register sound *pianissimo*, in tune, controlled, and effortless.

**Style Suggestions:** Example 6.18 is the final transition toward the cadenza beginning in measure 334. This new sense of calm in the concerto brings about the denouement. The performance style should bring a sense of peace and closure to the listener. It should sound still, effortless, and utterly beautiful.

**Measure 334-400**

The final section of *Fanfares for the Apocalypse*, Measures 334-400, is the cadenza. The cadenza consists of one continuous played note with circular breathing throughout. If performed at the indicated tempo of 60 beats per minute, the performer will have held the E5-natural-seventh for a period of nearly four minutes. This incredible extension of breath through circular breathing is intended to create a natural sense of tension and release in the listener through physio-valence, that is, the empathic revivification of a physical feat.\(^89\) In addition to playing the note, the performer must perform multiphonics not previously heard in *Fanfares for the Apocalypse*. The multiphonics stay near unison with the played note until the first vocal sweep of a full octave occurs in measure 373. Additionally, the cadenza includes bell direction instructions to provide the listener with a sense of total envelopment in the sound. The bell direction notation demonstrates the directional nature of the trumpet and often changes in tandem with multiphonics. The performer must maintain a relaxed air stream and supple embouchure to maintain endurance. Building the endurance required to

\(^{89}\) Appendix D.
circular breath for the duration of the cadenza may take many months of thoughtful and focused practice. This is the first part of the concerto that should be practiced regularly throughout the preparation of the piece.

Rhythmic content in the cadenza is clearly marked although there is a lack of pulse with no clear beat for the listener. The most important issue here is to maintain a constant production of sound until the end of the cadenza so that the sense of breathlessness will have maximum impact on the listener.

The single played note of the cadenza is an E5-natural-seventh. The multiphonics found in the bottom stave, almost entirely microtonal, require precise tuning.

Dynamic indications for the cadenza are mostly pianissimo with the occasional crescendo up to a mezzo forte and back to a pianissimo.

Example 6.19 mm. 334-354

---

**Extended Techniques:** Example 6.19 includes bell direction, circular breathing, microtonal notation, and multiphonics.

**Technical Challenges:** Example 6.19 includes a host of technical challenges. The required circular breathing combined with periodic multiphonics will likely prove to be physically taxing and difficult to tune correctly. While circular breathing, intonation of the E5-natural-seventh may become more difficult to control as well. The bell directions must be executed in precise rhythm, requiring the performer to subdivide the beat without a discernable pulse.

**Practice Suggestions:** The player must first become familiar with the notation as well as visualizing the act of constantly producing sound for nearly four minutes while singing microtonal multiphonics. Building the required endurance to circular breath for such a long duration should happen outside of the context of the concerto. The player should choose a note, perhaps a G4, and practice circular breathing in as relaxed a manner as possible until at least four minutes duration is reached. Additionally, transposing up by half-step will aid in gaining the necessary endurance for the cadenza. At first, it may be helpful to leave out any multiphonics when practicing on a lower note. A drone tone matching the played pitch should be used throughout the preparation in order to maintain correct intonation, especially while practicing the multiphonics. When practicing the E5-natural-seventh, the player should use a drone tone calibrated to the note’s precise frequency of 647.99 Hz. Since the voice is in a higher tessitura, it may be helpful to practice singing independently of the trumpet to ensure accurate intonation with a relaxed
and resonant vocal quality. The changes in bell direction may be practiced by going through the motions with a metronome in strict time without playing the trumpet.

**Style Suggestions:** The entire cadenza should sound serene and exquisite. The microtonal inflections in the voice should be embraced and emphasized for their discordant sound and inherent beauty.

**Example 6.20 mm. 363-370**

![Example 6.20 mm. 363-370](image)

**Extended Techniques:** Example 6.20 includes bell direction, circular breathing, microtonal notation, and multiphonics.

**Technical Challenges:** Example 6.20 continues with the technical demands of 6.19 but adds a multiphonic that goes above the played note in measure 365. The act of singing above the played note may create a certain level of resistance in the voice. Bell directions continue throughout the cadenza and should be performed in strict time.

**Practice Suggestions:** It may be helpful to isolate measures 364-367 in practice to find the point of least resistance between the voice and trumpet.

---

**Style Suggestions:** The dissonance here should be stable and emphasized so that the listener can embrace the sound.

**Example 6.21 mm. 373-383**

![Example 6.21](image)

**Extended Techniques:** Example 6.21 includes bell direction, circular breathing, microtonal notation, and multiphonics.

**Technical Challenges:** In addition to the previously mentioned challenges included in examples 6.19 and 6.20, example 6.21 includes a vocal sweep in measures 373-375 and 381-383. One of the challenges of performing a full octave glissando with the voice is to perform the glissando in a smooth and consistent manner.

---

**Practice Suggestions:** It may be helpful to practice the voice glissando independently of playing the trumpet to ensure a smooth, even, and consistent sound.

**Style Suggestions:** It is important for the vocal glissando in this section to be performed as smoothly as possible.

**Example 6.22 mm. 385-400**

![Example Music Notation]

**Extended Techniques:** Example 6.22 includes air sound, bell direction, circular breathing, microtonal notation, multiphonics, notated valve combinations, and random keys.

---

Technical Challenges: The concluding measures of Fanfares for the Apocalypse include multiphonics with more than an octave between the trumpet and voice. The technical challenge results from the difference in resistance while the performer is playing the E5-natural-seventh and singing the notes in measures 390-395. This is one of the more challenging moments of the concerto because endurance will likely have become a major issue since the player has been circular breathing for nearly four minutes.

Practice Suggestions: It is helpful to practice the vocalization without the added resistance of the trumpet. Proper intonation is crucial here since these are the concluding measures of the concerto. The intervals during the multiphonics should be clear to the listener. Bell direction should again be isolated from the rest of the concerto and practiced with a metronome to ensure the precise and accurate timing of the gestures.

Style Suggestions: The finality of the closing measures should have a dramatic impact on the listener. This is the final release of tension from the fast moving high-energy sections heard before the cadenza. Therefore, the performer should strive for a calm, serene, and utterly beautiful delivery of the final moments of Fanfare for the Apocalypse.

Conclusion

Fanfares for the Apocalypse brings a fresh approach to the trumpet as a solo instrument. The task of the performer is to transcend the concerto’s technical and physical demands and present it as a musical exploration of risk taking through an engaging and committed performance. The purpose of this performance guide, along with
the catalogue of extended techniques found in chapter 5, is to aid the performer in the musical discovery of this great new work.
Ken Ueno’s *Fanfares for the Apocalypse* is the result of a massive collaborative effort between a performer and composer as well as the generosity of the University of Miami’s Henry Mancini Institute at the Frost School of Music. Because of this collaboration, the listening public has a new masterpiece of trumpet repertoire to enjoy as either a work for solo trumpet or for trumpet and chamber ensemble. New music and the arts in general can only thrive when the support of artists, supporting organizations, and the public work in harmony. It is my great hope to continue on the path of creating and performing art for listeners to enjoy. History will show that although many of the extended techniques used in *Fanfares for the Apocalypse* may be considered as extreme by today’s standards, but with creative application from composers and committed performances from players, they will eventually become part of the standard lexicon of trumpet sounds. The future is full of possibility for new music and the trumpet.

Chapter 6 provided an in depth and logical approach to learning *Fanfares for the Apocalypse* by explaining how objective elements such as rhythm, pitch, notes, and editorial detail can each be internalized without overwhelming the performer. When the objective elements are fully learned, the performer is then free to interpret the concerto with total confidence.

It is my hope that this document serves as an inspiration to not only learn and perform *Fanfares for the Apocalypse*, but to also seek out and commission new music.
Acquiring the Score

The full score, ensemble parts, and solo part can be acquired directly from Ken Ueno via his website at www.kenueno.com by clicking on the contact link or by emailing him at info@kenueno.com.

Reference Video and Audio Recording

The premiere performance of Ken Ueno’s Fanfares for the Apocalypse featuring the University of Miami’s Henry Mancini Institute at the Frost School of Music can be found on YouTube and SoundCloud.


BIBLIOGRAPHY


APPENDIX A

CUSTOM PERCUSSION INSTRUMENTS

Percussion Instrument Blueprint

Blueprint for percussion instrument resonator boxes. Designed by Pierre Brunet.
Percussion Instrument Construction

This is 2 x 4 foot pine wood board. It is marked with cut measurements.

Percussion Instrument Construction

This is the first cut.
Percussion Instrument Construction

All cuts complete. The first percussion box of three is ready for assembly.

Percussion Instrument Construction

Instrument is preassembled and ready for permanent assembly.
The resonators are built and ready for suspension nails and copper pipe installation.

This is a rough drawing of the suspension system used to suspend the copper pipes.
Framing nails wrapped with electrical tape.
Nail installation is complete. Instrument is ready to accept copper pipes.

The first instrument is complete.
All instruments are complete.

**Table A.1: Copper Pipe Tuning Method**

<table>
<thead>
<tr>
<th>Copper Pipe Tubing Length Ratio Calculator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can be used for a tube open at both ends or for a tube with end caps</td>
</tr>
<tr>
<td>By referencing a tube of known length and frequency</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enter measured pipe length</th>
<th>Enter measured pipe frequency</th>
<th>Enter desired pipe frequency</th>
<th>Answer: length of pipe for desired frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm</td>
<td>Hz</td>
<td>Hz</td>
<td>mm</td>
</tr>
<tr>
<td>552.00</td>
<td>327.7</td>
<td>392.43</td>
<td>504</td>
</tr>
</tbody>
</table>

This is a replica of the Microsoft Excel spread sheet used to calculate the approximate length of pipe for a desired frequency based on a control pipe. Lengths of all
eighteen pipes were calculated using this method. They were then rough cut using a pipe cutter and fined tuned with a metal file. The original spread sheet is downloadable from http://leehite.org/Chimes.htm#DIY_Calculators

Copper Pipe Tuning Method

This is one of the early pipe tuning stations used. A mallet was used to strike the pipe while a tuner was placed next to it to measure the frequency.
Copper Pipe Tuning Method

This is a screen shot of the application made by Peterson Electro-Musical Products Inc used to tune the copper pipes.
APPENDIX B

AUTOGRAPH MANUSCRIPT

Autograph Manuscript by Ken Ueno.

This is the autograph manuscript of sketches of *Fanfares for the Apocalypse* by Ken Ueno.
APPENDIX C

CONCERT POSTER AND PROGRAM FROM THE PREMIERE

Concert Poster

This is the concert poster created for the premiere of *Fanfares for the Apocalypse* by Ken Ueno.
Concert Program

FROST
SCHOOL OF MUSIC
UNIVERSITY OF MIAMI

Henry Mancini Institute
Presents

New Music

SCOTT FLAVIN, RESIDENT CONDUCTOR
ALEXANDER MAGALONG, GUEST CONDUCTOR
JAMES NEWTON HOWARD, ARTISTIC DIRECTOR
STEPHEN GUERRA, MANAGING DIRECTOR

Saturday, September 26  ●  Two Thousand and Fifteen  ●  Eight o'clock in the Evening
Maurice Gusman Concert Hall  ●  University of Miami  ●  Coral Gables, Florida
PROGRAM

Focus (1961) ...................................................... Eddie Sauter (1914-1981)
1. I'm Late, I'm Late
2. Her
3. Pan
4. I Remember When
5. Night Rider
6. Once Upon a Time
7. A Summer Afternoon

Professor Gary Keller, tenor saxophone
Jonathan Hulett, drums
Lauralie Pow, piano

--- INTERMISSION ---

Alexander Magalong, guest conductor

Philippe Brunet - trumpet soloist
Ernesto Fernandez, Emilio Rutilant, Trey Bradshaw - flute
Raul Jimenez, Lee Seidner - clarinet
Brandon Guillen, Larysa Pavelek, Rhonda Kremer, Szilard Molnar - french horn
Jessica Hawthorne, David Woger - trombone
William Kaufman, Ksenija Komljenovic - percussion
Fanfares for the Apocalypse

Concerto for trumpet and chamber ensemble, or solo trumpet

For Philippe Brunet

Commissioned by the Henry Mancini Institute at the University of Miami’s Frost School of Music

During the summer of 2013, I met Philippe Brunet at the Atlantic Music Festival, where I was composition faculty and he was an instrumental fellow. He led a remarkable group of brass players in a performance of my brass quintet, which greatly impressed me. I also heard him play Berio’s *Sequenza X* and he showed me that he could throat sing (this was of special interest to me, since I lead a double life as a throat singing vocalist). The core of my compositional praxis is person-specific music, music that is (at least initially) composed in such a way to highlight the extraordinary sonic potential of remarkable musicians. Often, my person-specific music integrates techniques that are, as of yet, unique to a specific performer. When I heard Philippe and got to know his repertoire and the range of sounds he could make, as well as his fierce artistic integrity, it seemed to me that we were meant to collaborate together.
We planned on collaborating together ever since that summer of 2013, and the logistical realization came in the form of a commission from the Henry Mancini Institute, which graciously helped support the project in the fall of 2015. The spring before the premiere, Philippe came to visit San Francisco to play a recital at the Center for New Music. During that trip, I was able to further pick his brain about techniques and hear him demo them for me. For example, the combination of low, double pedal tones with throat singing. It worked astonishingly well. It is also exactly the kind of sound that exemplifies what I mean by person-specific - I don’t yet know of any other person in the world who can deliver these sounds.

Compositionally, however, the combination of throat singing and double pedals delivers to me a sound that gives me a visceral, and emotional, feeling that no other sound communicates. The expressive end of person-specific means is this: the expansion of expressive potential mediated through new musical techniques. Around the time I was composing this piece, I was reading the facsimile of The Getty Apocalypse Manuscript, Medieval illuminations of the Book of Revelations. I was inspired by the portrayals of angels heralding the end of times with trumpet fanfares. I feel something eschatological in the zeitgeist today, and this piece ruminates on that sense of danger and consequence. The piece, if I may be so bold, is also a kind of “apocalypse” for the trumpet, one that hopefully heralds a new world of possibilities. One final tidbit. The end of the piece features several minutes of microtonal inflections on a circular-breathed note. Physiovalence, that is, the empathic revivification of a physical feat, observed in the body of the performer and recreated in the body of the listener, curates local fluctuations of tension and release, that is meant to balance the hyper-physicality of earlier sections (alas, a
denouement), as well as create a space for mindfulness. That virtuosic exhalation is my hope for exorcising the tensions in the world that read in the current zeitgeist (as the Medieval world must have at times) as eschatological.
APPENDIX E

SOLO PART FRONT MATTER
KEN VENO

Fantasies for the Apocalypse
a concerto for trumpet
and chamber ensemble

Solo C Trumpet

New Jack Modernism Music © 2015
INSTRUMENTATION:

Solo trumpet
3 C flutes
2 Bb clarinets
4 French horns
2 trombones
3 percussion

Commissioned by the Henry Mancini Institute
at the University of Miami's Frost School of Music
for Philippe Brunet

Duration: 15min

Seating Arrangement:

Perc. 2

Perc. 1 cl. 1 cl. 2 Perc. 3
trbn 1 Solo trbn 2

Solo Trpt

c Conductor

horn 1 horn 2

Audience fl. 1 fl. 3

fl. 2 horn 3

horn 4


General Performances Notes (for all instruments):

Microtonal notation:

![Microtonal notation illustration]

For natural 7th partials

Ticks indicate 1/4-note pulse within bar

Line between notes indicates a gradual glissando

Square noteheads indicate a pitch - vocalize on "ff"

Percussion Key:

In addition to these instruments, each player plays a set of metal pipes tuned microtonally and some dry twigs and leaves:

- bass drum
- toms
- snare
- brake drums
- suspended cymbals

Tuning of Metal Pipes (frequencies in Hz):

**Perc. 1**

1819 Hz  327.03 Hz  559.75 Hz  416.29 Hz  477.84 Hz  708 Hz  354.36 Hz

**Perc. 2**

228.92 Hz  261.62 Hz  309.99 Hz  408.99 Hz  518.99 Hz  776 Hz  647.99 Hz  708 Hz

**Perc. 3**

184.99 Hz  294.32 Hz  342.99 Hz  392.43 Hz  508.56 Hz  568.94 Hz  523.23 Hz
Trumpet Key:

Square notehead denotes air sound through the instrument. Vocalize on "efh."

Top staff (when present, denotes fingerings).

Tremolo on air is an air flutter.

Double pedal tones.

Headless notes denote random fingering choice. Squiggly arrow indicates duration of technique (continue until end of arrow).

Arrows pointing upwards denote inhalation. Vocalize on "huh."

Triangular noteheads denote flutter ram.

Sfz articulations of the technique in play. (Here, sfzs added to air flutter).
Diamond noteheads indicate singing through the instrument. Here, indicates throat singing. Additionally, the top staff indicates random fingerings added in conjunction with throat singing on C.

Sung note glissed at the same time as a played note.

Gradually slow down an air flutter and transition into singing, w/random keys on the air flutter.

Number denotes keys (alternate fingerings in this case - do not adjust into equal temperament).

Circular breathe on an E (the natural 7th of F#).

Gradually change direction of trumpet to 90° to the right. Gradually change direction of trumpet to the center.

Sing through the instrument while playing.

IV