

**Portfolio of Works: Composing Perceptions of Time in Music**

by

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A thesis submitted in partial fulfillment of the requirements for the degree of

Master of Music

in

Composition

Department of Music

University of Alberta

## Abstract

This portfolio contains three compositions whose primary aims are to manipulate perceptions of time through sonic contrast and similitude. The works also explore composing performer interactions, integrating electronics into an acoustic environment, and using varying levels of indeterminacy to increase performance possibilities. All three pieces were written between 2021 and 2022 in partial fulfilment of a Master's thesis at the University of Alberta.

The first of these works, *w.RivEr.ST & nimbi*, for saxophone quartet, uses interlacing multiphonics to create a static bed of sound with constantly varying inner motion. The second section, *nimbi*, is a single page, indeterminate score that encourages sonic exploration improvisatory techniques. Both sections of the piece are written with proportional notation and require performer interaction and communication to maintain alignment of musical events, consistent pacing, and musical cohesion.

The second work, *Below, the Boarhound and the Boar*, for trumpet, violoncello, percussion, and electronics, deviates from the previous work in that it uses conventional, measured notation to control pitch, dynamics, timbre, and tempo. This piece marks my first significant endeavour into the use of electroacoustic techniques, such as additive synthesis, granular synthesis, and analysis/resynthesis, as compositional tools. Its primary goal is to manipulate temporal perceptions through abrupt contrasts in register, dynamics, and timbre.

The final work, *Grey on Indigo, Faded*, for flute, clarinet, violin, violoncello, and piano, builds on *w.RivEr.ST & nimbi* by expanding on ideas of silence, space, and static flow. This work, however, adds a four-channel field recording, played back at nearly imperceptible levels, in order and further draw attention to the silence and space between sounds.

## **Acknowledgements**

I want to thank first and foremost my composition instructor and supervisor, Mark Hannesson, for showing me how fascinating and meaningful a single note can be, when given enough love and attention.

I would also like to thank my other instructors, Scott Smallwood, Maryam Moshaver, Andriy Talpash, and Mark Segger, for the support they gave me and the energy they put toward my growth as a student and artist. Their breadth of knowledge, compassion, and humanity are the reasons why I leave this university a better person than I was upon entering.

Thank you to my partner, Katie, my parents Arden and Arlana, and my sister Alicia, for your continual support and willingness to listen to my impassioned speeches about the most specific and unimportant topics, the likes of which you've never before heard.

I would like to thank all of my peers, without whom, I would have found myself lost many times in this school and city. I look forward to continuing to grow with you and wish you the best of luck and fortune in your artistic and professional developments to come.

Finally, a special thank you to my dear friend Jason for his lifelong friendship, love, and understanding. Our regular conversations are what keep me grounded and passionate about life and learning.

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## Introduction

I did not enter my composition program with any overarching plan to ensure cohesion between the results of my upcoming musical exploration. However, two clear preoccupations emerged over the course of my studies that thematically connect the three works I wrote: (1) the listener's perception of time, as affected by sound, and (2) using compositions to create meaningful ensemble interactions. Furthermore, the creation of these works has elucidated a central purpose that drives my compositional practice: to create experiences in which people can practice deep listening, feel a sense of heightened self-awareness, and form extra-personal connections with their surroundings.

Each of the three works found below attempt to induce different temporal effects on the listener, such as stasis (*w.RivEr.ST & nimbi* (2021)), expansion (*Below, the Boarhound and the Boar* (2022)), and timelessness (*Grey on Indigo, Faded* (2022)). The first and last of these pieces also make use of proportional notation, graphic notation, or a combination of both, in order to control how performers interact and listen to one another in realizing the piece. My interest in this performative element of music creation is a result of my experiences in experimental and improvisation-based music where the level of listening and investment of the musicians directly correlates to the quality of the music created.

*w.RivEr.ST & nimbi* is a work for saxophone quartet that heavily utilizes multiphonics and indeterminacy to emulate the cyclical and dynamic nature of rivers and clouds. *Below, the Boarhound and the Boar*, for trumpet, cello, percussion, and electronics, is inspired by cycles and expectation; the sonic material for this work is derived from the four Thai gongs that the percussionist plays during the piece. Lastly, *Grey on Indigo, Faded*, for flute, clarinet, violin, violoncello, and piano, explores the ability to compose silences to highlight space between sound.

## Chapter One

***w.RivEr.ST & nimbi***

*for saxophone quartet*

## Overview of Method

In *w.RivEr.ST* & *nimbi*, my aim was to explore a single idea, extended without development, to try and expand the listener's perception of the passing rate of time. In addition to this, I wanted to compose the performative aspect of this work by forcing ensemble interaction, awareness, and active listening through a combination of graphic and proportional notation. The relatively simple, slow-changing material combined with its presentation encourages the performers to spend most of their time looking at each other to coordinate the beginnings and endings of musical events and maintain pacing without a synchronizing pulse.

The work, inspired by the great rivers that flow from the Rocky Mountains and the cloud formations over the Canadian Prairies, aims to sonically recreate the slow, ever-shifting states of these two natural phenomena. The material chosen in the first section – *w.RivEr.ST* – primarily consists of overlapping multiphonics, which after a period of time, begin to elicit a feeling of temporal stasis despite the regular changes in pitch and the intrinsic instability of the technique.

The second section – *nimbi* – incorporates indeterminacy in a single page score that allows for variation with every performance in order to mimic the changing and irreplicable nature of clouds. The instructions to the performers for this section indicate a general increase in sound density followed by an equally long decrease (creating a mirrored binary form) while not specifying exact pitch lengths, dynamics, or performance techniques. Though specific pitches are notated for performers, they are free to choose which ones they would like to play from their assigned sets, and with what technique. Together, these elements culminate in an unpredictability that mirrors the variability of density in cloud groups, while still providing an overarching, consistent form from performance to performance.

## Program Notes

From a distance, rivers and clouds appear as static, unchanging masses, complete and unified. Up close however, they are revealed to be perpetually shifting and in a constant state of becoming. The saxophones' multiphonics in *w.RivEr.ST & nimbi* are a reflection of these dual-states: at times they feel unstable, shifting their internal structures while at others, they combine into unified, static entities, inside which time slows.



w.RivEr.ST & nimbi  
for saxophone quartet

Thomas Powell

# w.RivEr.ST & nimbi

for saxophone quartet

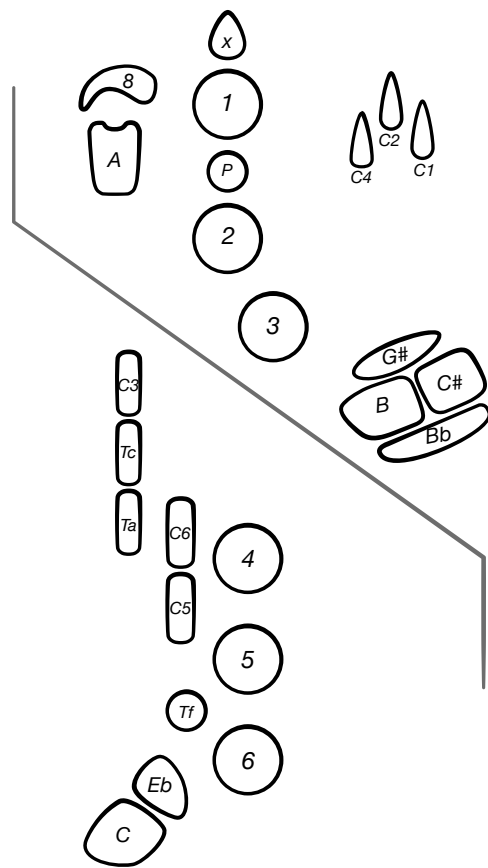
Thomas Powell

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## Instrumentation

Bb Soprano Saxophone  
 Eb Alto Saxophone  
 Bb Tenor Saxophone  
 Eb Baritone Saxophone (+ Eb Alto)

## Fingering Diagram



## 1. w.RivEr.ST

- = pitched note\*
- = Multi-phonic\*
- ◇ = Air
- ◇<sub>fi.</sub> = Air + flutter tongue
- = duration markers
- = sound event relations
- = fingering reduction
- ↗ = repeat previous sound
- ≡ = sounding pitch(es)\*

Duration: ~ 9:30

## 2. nimbi

Play one pitch from the measure.\*

On repeat, play two pitches.

Next repeat, play three pitches, and so on.

After the sixth repeat (and you have played six pitches from the measure), play one less pitch on each repeat.

The piece is finished when everyone reaches zero pitches.

Pitches must be read left to right.

Accidentals only affect adjacent pitch.

♭ ♯ = 1/4 and 3/4 tone flat or sharp

↑ ↓ ♭ ♯ = 1/8<sup>th</sup> tone flat or sharp

Pitches may be produced using any technique (harmonics, non-vib., multi-phonic, sung, etc.).

Dynamics are pp to mp.

Generally drifting.

Duration: 2-3 minutes.

# w.RivEr.ST

for saxophone quartet

Composed by Thomas Powell

The score is divided into five time segments by vertical dashed lines. The first segment (0:00 to 0:12) shows the initial entries for all four saxophones: Soprano (*p*), Alto (*ppp*), Tenor (*pp*), and Baritone (*p*). Each instrument has a specific fingering diagram and a melodic line. The second segment (0:12 to 0:24) shows all four instruments with a 'no sound' symbol (a circle with a diagonal slash). The third segment (0:24 to 0:36) shows the Alto and Baritone instruments with melodic lines and fingering diagrams, while the Soprano and Tenor are silent. The fourth segment (0:36 to 0:48) shows the Tenor instrument with a melodic line and a fingering diagram marked with an 'x', while the other three instruments are silent. The final segment (after 0:48) shows the Tenor instrument with a melodic line and fingering diagram, while the other three instruments are silent.

1:00 1:12 1:24 1:36 1:48

S  
A  
T  
B



2:00 2:12 2:24 2:36 2:48

S  
A  
T  
B

3:00 3:12 3:24 3:36 3:48

S  
A  
T  
B

3:00 3:12 3:24 3:36 3:48

3:00: S (rest), A (rest), T (rest), B (rest).  
3:12: S (rest), A (rest), T (rest), B (rest).  
3:24: S (rest), A (rest), T (rest), B (rest).  
3:36: S (rest), A (rest), T (rest), B (rest).  
3:48: S (rest), A (rest), T (rest), B (rest).



4:00 4:12 4:24 4:36 4:48

S  
A  
T  
B

4:00 4:12 4:24 4:36 4:48

4:00: S (rest), A (rest), T (rest), B (rest).  
4:12: S (rest), A (rest), T (rest), B (rest).  
4:24: S (rest), A (rest), T (rest), B (rest).  
4:36: S (rest), A (rest), T (rest), B (rest).  
4:48: S (rest), A (rest), T (rest), B (rest).

5:00 5:12 5:24 5:36 5:48

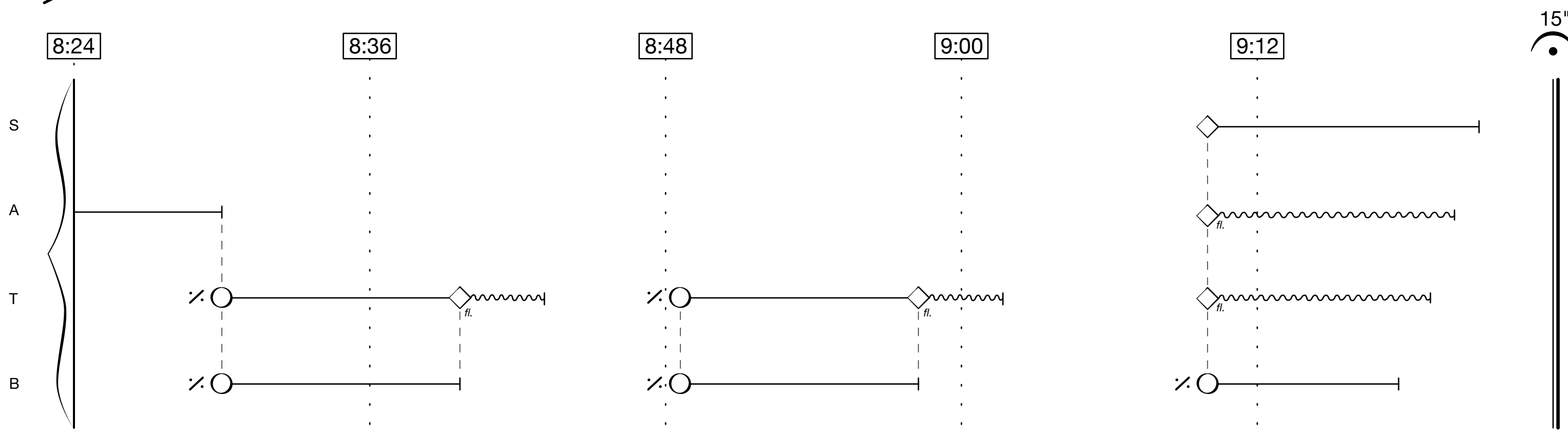
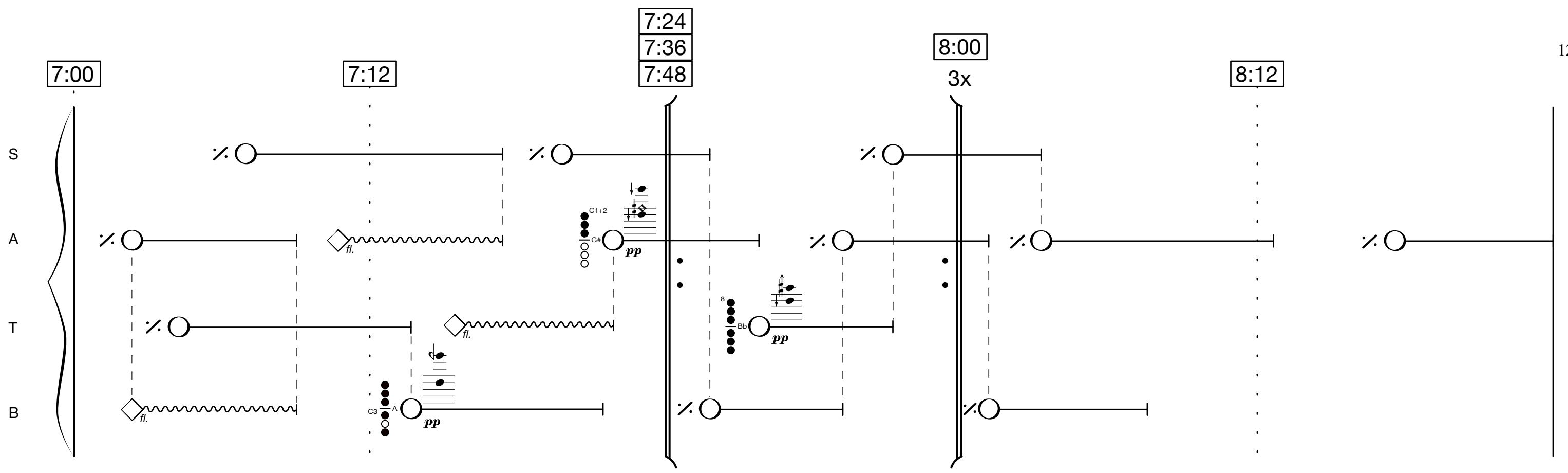
S  
A  
T  
B

Detailed description: This section of the score covers the time interval from 5:00 to 5:48. It features four staves labeled S, A, T, and B. At 5:00, the Soprano and Alto parts have notes with dynamic markings *mp* and *p* respectively. At 5:12, 5:24, and 5:36, all parts have rests indicated by a slash and a circle. At 5:48, the Soprano and Alto parts have notes with dynamic marking *p*, while the Bass part has notes with dynamic marking *p*. There are also some notes in the Tenor part at 5:48.

6:00 6:12 6:24 6:36 6:48

S  
A  
T  
B

Detailed description: This section of the score covers the time interval from 6:00 to 6:48. It features four staves labeled S, A, T, and B. At 6:00, the Soprano and Bass parts have rests, while the Tenor part has a wavy line with a diamond and *fl.* marking. At 6:12, the Soprano and Bass parts have rests, while the Alto and Tenor parts have notes with dynamic marking *mp*. At 6:24, the Soprano and Tenor parts have rests, while the Alto part has notes with dynamic marking *mp*. At 6:36, the Soprano and Alto parts have wavy lines with diamond and *fl.* markings, while the Tenor and Bass parts have notes with dynamic marking *p*. At 6:48, the Soprano and Tenor parts have rests, while the Alto part has notes with dynamic marking *mp*.





Composed by Thomas Powell

# nimbi

for saxophone quartet

11 - 15"

The musical score is written for four saxophones: Soprano, Alto, Alto, and Tenor. Each part is on a single staff with a treble clef. The Soprano part begins with a  $(b2)$  marking above the first measure. The Alto parts have various accidentals and markings, including  $(\#2)$  and  $(\#1)$ . The Tenor part has  $(\#1)$  and  $(\#2)$  markings. The score concludes with a double bar line and repeat dots. A dynamic marking box at the bottom left indicates the range from *ppp* to *mp*.

*ppp - mp*

## Chapter Two

### ***Below, the Boarhound and the Boar***

*for chamber ensemble and electronics*

## Overview of Method

*Below, the Boarhound and the Boar*, for trumpet, cello, percussion, and electronics, is an exploration of contrasts, specifically in pacing, materials, and dynamics, and their effects on the listener's perception of time.<sup>1</sup> In this way, it opposes the homogeneity of my previous work, *w.RivEr.ST & nimbi*, but continues my exploration of time as a primary concern for composition.

The percussion is central both to the composition and performance of this work, often taking a soloistic role and being the originating point of activity and density. Compositionally, much of the pitch material and timbral considerations are derived from the four Thai gongs used as part of the percussionist's gamut. Furthermore, the electronic samples are either made from recordings of the gongs, or synthesised based on analysis of their frequency content.

The role of the cello shifts between adding complementary percussive elements (*col legno battuto* at mm. 30, 32, 34, etc.), noise elements in conjunction with the trumpet (such as bowing on the bridge or tailpiece at mm. 23, 27-9, 56-7 etc.), and providing clear pitch material on its own or with the trumpet (mm. 71-90). The trumpet occupies a similarly fluid space using percussive and phonetic breath techniques to create noise and pseudo-electronic effects (mm. 4-16), metallic objects such as the Harmon mute or a metal sheet to connect to the metallic timbres of the gongs (mm. 19-22, 31-49), and extended techniques such as singing while playing or pressurized multiphonic squeals to distort and expand the timbral potential of the instrument.

The form of the piece is in three main sections: A (mm. 1-115), B (116-117), and C (mm. 118-181). The A section lasts approximately seven-minutes and creates tension through the rise and fall of sonic activity and the use of extended techniques that destabilize the traditional positions

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<sup>1</sup> The title for this work, along with the epigraph found in the score, are lines from T.S. Eliot's poem, "Burnt Norton" (1935), the first poem in his collection *Four Quartets*. They are the legal property of Faber and Faber Ltd. and are used with permission.

of the trumpet and cello. The B section, lasting 2'10", is the focal point of the piece and contains only a low frequency drone in the electronics. During this section, the instrumentalists do not play, with the exception of the percussionist who has a one-minute-long drum roll that crescendos into the final section. The goal of this section is to provide a sudden contrast to the motion of the A section through the use of an extended period of stasis. Finally, in the C section, the cello and trumpet take up traditional melodic roles with the sound of the gongs resonating behind them – heard clearly in this way for first time in the piece. This adds further relief to the tension created in the A section and unwinds the feeling of stasis to a quiet end.

## Program Notes

Sometimes there is a single moment, however brief, that can bring quiet to the constant cycling of our days. It brings us out of ourselves to notice what we are doing, where we are, and with whom we are. Look for these moments and the stillness they offer, then, continue your pattern, as before, below, like the boarhound and the boar.<sup>2</sup>

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<sup>2</sup> This line is a reference to T.S. Eliot's poem, "Burnt Norton," (1935) from his *Four Quartets*, and is used with permission by Faber and Faber Ltd. in the context of this Thesis. Do not reproduce without permission.

# Below, the Boarhound and the Boar

for trio and electronics

by Thomas Powell (2022)

# Below, the Boarhound and the Boar

for Bb Trumpet, Violoncello,  
Percussion, and Electronics

(2022)

by Thomas Powell

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*We move above the moving tree  
In light upon the figured leaf  
And hear upon the sodden floor  
Below, the boarhound and the boar  
Pursue their pattern as before...*

- T.S. Eliot, "Burnt Norton"










# Performance Notes

## Trumpet

Items needed:

Harmon Mute (stem removed).

Thin gauge metal sheet large enough to cover and extend past the bell. The metal should be thick enough to be stable while upright, but thin enough to buzz when covering the bell of a sounding trumpet.

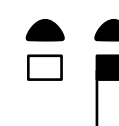
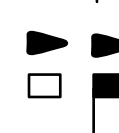
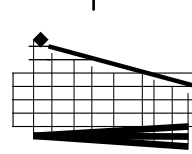

-  Breath only sound. Mouth shape/phonetic sound indicated above note head. All sounds are exhaled unless otherwise indicated.
-  Inhale breath sound (indicated above breath note head).
-  Pressurized multi-phonetic/squeal. Produced with extreme air pressure barely allowed through the mouthpiece.
-  Place hand over bell or mute opening.
-  Open bell or mute opening.
-  Smoothly transition the hand over the bell from closed to open (can be vice versa).
-  Vocalize with trumpet pitch, either in unison or at the octave, depending on vocal range. Try to stay near, but not exactly, in unison in order to create beats between the note and the voice.

 Rapid run with no definite pitch. Range should follow general contour of line.

## Violoncello

Con sordino: leather is preferred.

Unless otherwise notated, notes are to be played *non-vibrato*.

-  Unpitched sound, played by bowing the wood of the bridge (no string sound).
-  Unpitched sound, played by bowing the tailpiece.
-  Col legno battuto bounce. Bounce the wood of the bow on the string, letting it accelerate until rest. Left hand should lightly press string (harmonic pressure) and gliss. in the direction of the line. Note head indicates approximate LH position.
-  Bow pressure indication. Thicker areas of the shape equate to more pressure.

## Electronics

Items needed:

A laptop with MAX/MSP installed (at least version 8).

A midi mixing board with 8 sliders.

A 2-channel speaker system and audio interface through which to connect the laptop.

**6** Boxed text indicates keyboard key to trigger.

**3** Circled text indicates fader to manipulate.

Audio files and Max patch for performance can be obtained by emailing [tpowell2@ualberta.ca](mailto:tpowell2@ualberta.ca)

# Performance Notes

## Percussion

### Percussion setup

Snare Drum (tuned to A). Snare should remain off unless otherwise indicated.

Tom Drum (tuned to D). Drum should not be too resonant. Use gel square or other tool if necessary.

Bass Drum.

### 4 Thai Gongs:

18" (D below middle C).

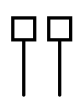
16" (F below middle C).

14" (G $\sharp$  below middle C).

12" (A $\sharp$  below middle C).

Gongs are to be placed face up, laying on a table, to begin the piece. It is recommended a towel or blanket be in between them and the table. A rig to hang all 4 gongs should be nearby and easily accessible. Drums should be located near the table to allow simultaneous playing of the gongs and drums.

### Implements needed:



Rollers (Vic Firth T2 Cartwheel timpani mallets, or similar).



Bass Drum (Anything large and soft).



Firm Yarn (Musser M-222, or similar).



Metal Triangle Beaters (2x).



Bow (cello or bass).

(Optional) Sandpaper or sandpaper block (see fingernail symbol below).

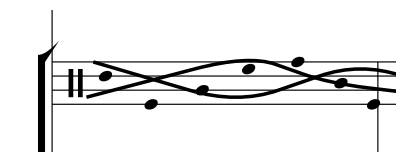
### Symbols:



Use finger nails to strike or scrape drum head. If player does not keep long enough fingernails for effect, a sandpaper block or piece of sandpaper can be used.



Trace around drum head in a circular motion to create a white noise effect. Can be done with the wood ends of mallets or with the fingernails.



Drag indicated implement over faces of gongs or drums to create a texture of light, randomized attacks. Vary speed, pressure, and areas of contact as necessary to maintain sense of motion within the texture.



Dampen drum head to stop sound.



Strike mid-area of gong (i.e. not raised centre point). Regular note heads indicate to hit the centre point.



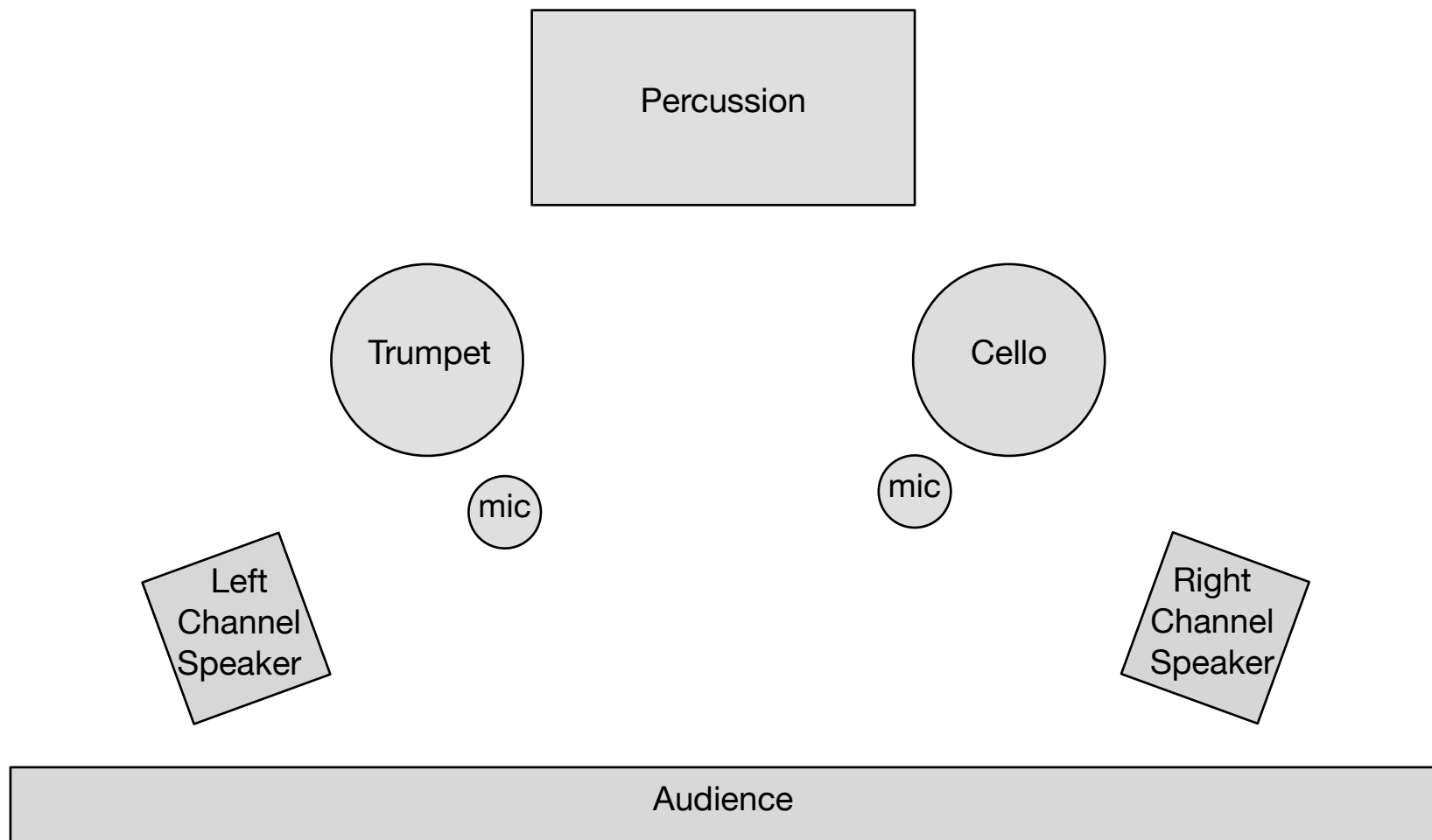
Strike rim of drum.



Bowed note on gong.

# Layout & Amplification

Suggested Layout:



Amplification:

Instrument amplification will be required in both small venues, such as a gallery, studio space, or club, and large performance spaces, such as a concert or recital hall. The trumpet and violoncello will require standing mic's for amplification. They should both have a cardioid polar pattern to minimize on-stage bleed. Clip-on-mic's will not be appropriate due to the extended techniques employed on the trumpet's bell and cello's bridge. The cello microphone should be placed very close to the bridge to pick up some of their quieter gestures.

Overhead mic's may also be required for the percussion to ensure overall timbral homogeneity. Be sure to balance amplified levels with electronics. Overall volume of the ensemble should not be much louder than if they were unamplified, but the overall resulting texture should be more cohesive.

Duration *c.* 12'30"

Score is Transposed.

# Below, the Boarhound and the Boar

Thomas Powell

♩ = 65

Trumpet (in Bb)

Violoncello

Gongs

Percussion

Snare Tom Bass Dr.

Electronics

tch sss k

*fp* *mp*

sul pont.

*pp* *mp*

secco

*ppp* *p* *pp*

1 2

Trpt. (Bb)

Vlc.

Gongs

Percussion

Sn. Tom Bs. Dr.

Electronics

ff t tch ff → aah

*p* *mp* *p* *ff* *aah*

t k f

sul tasto

sul pont.

*pp* *mp* *pp*

*ppp*

Trpt. (Bb)

Vlc.

Gongs

Percussion

Sn. Tom Bs. Dr.

Electronics

ti k ss t k ta sh

*mp* *mf*

sul tasto

ord.

*mp* *pp* *mf* *pp* *p*

3 1

begin fade-in  
24

19

Trpt. (Bb)

Vlc.

Gongs

Percussion

Sn. Tom Bs.Dr.

Electronics

Harmon out too

*mf* *p* *mf* *p*

*mp* *p* *mf*

secco

*p* *mp* *f*

cut to barely audible

continue fade in

25

Trpt. (Bb)

Vlc.

Gongs

Percussion

Sn. Tom Bs.Dr.

Electronics

k tch koo

Prepare sheet of metal

col legno battuto L.H. harm. gliss

snare on with tap

snare off, to rollers

*mf*

*mf*

*mp* *p* *mf* *p* *mf* *mp*

4

31

Trpt. (Bb)

Vlc.

Gongs

Percussion

Sn. Tom Bs.Dr.

Electronics

With metal sheet (Plate Buzz)

circular breathe if/when possible

arco

cl b.

arco

cl b.

arco

Molto pont.

wood end

*mp*

*mf* *mp* *mf* *mp* *mf* *p*

37

Trpt. (Bb) *mp* *poco a poco cresc.*

Vlc. *mf* *mp* *mf* *p* *mf* *mp*  
cl b. arco cl b.

Gongs Percussion Sn. Tom Bs.Dr. *p* *mp* *mp*

Electronics

43

Trpt. (Bb) *mf*

Vlc. arco *f* *mp* arco *cresc.*  
cl b.

Gongs Percussion Sn. Tom Bs.Dr. *mp* *mf* *p*

Electronics

49

Trpt. (Bb) *f* *p* *p* *ff*  
remove metal  $\hat{t}$

Vlc. *ff* *mf* *p*  
sul pont.

Gongs Percussion Sn. Tom Bs.Dr. *f* *p* secco to rollers

Electronics Fader 1 off

55 ee t hh too oh see oo t k pff huu k ff

Trpt. (Bb)

Vlc. *mf* sul tasto sul pont. molto pont. *poco cresc.*

Gongs Wood end of mallet

Percussion

Sn. Tom Bs.Dr. *ppp* *mp*

Electronics 5 2 3 Begin fade-in

62 tah

Trpt. (Bb) *f* pressurized multiphonic explore different partials, trying to match and then depart from the pitch of the electronics/cello

Vlc. Sul A *f* press finger into string next to bow explore different partials, trying to match and then depart from the pitch of the electronics/trumpet

Gongs loosely holding beaters, drag erratically across gongs

Percussion to metal beaters

Sn. Tom Bs.Dr.

Electronics

68 Prepare Harmon t k ss k p Harmon in

Trpt. (Bb)

Vlc. *f*

Gongs

Percussion

Sn. Tom Bs.Dr.

Electronics

74

Trpt. (Bb) *f* *sf* *t* *krr* *t* *f* *k t k t k t k*  
 Vlc. *f* *sfz* *f*  
 Gongs  
 Percussion  
 Sn. Tom Bs.Dr.  
 Electronics

Vocalize in near-unison (or 8ve),  
 explore creating beats between notes

80

Trpt. (Bb) *mf* *mp* *mf*  
 Vlc. *mp* *f* *mf*  
 Gongs  
 Percussion  
 Sn. Tom Bs.Dr.  
 Electronics

Begin switching to rollers as smoothly as possible.  
 Use backs of sticks to continue sound.

*ti* *ti* *sul pont.* *ord.*

86

Trpt. (Bb) *mf* *p t* *s t ff k*  
 Vlc. *f* *mp* *f* *7th partial sul D* *cl b.*  
 Gongs  
 Percussion  
 Sn. Tom Bs.Dr.  
 Electronics

*1/2* *Wood ends* *secco* *(rims)* *(ord.)*



92

Trpt. (Bb)

Vlc.

Gongs

Percussion

Sn. Tom Bs.Dr.

Electronics

*mf*

*mf*

*mf*

*mp*

cl b.

wood ends

secco

6 6 6 6

*mp*

add in fader 4

98

Trpt. (Bb)

Vlc.

Gongs

Percussion

Sn. Tom Bs.Dr.

Electronics

remove Harmon

press near bow Sul C

pick up 12" gong after hit

6

104

Trpt. (Bb)

Vlc.

Gongs

Percussion

Sn. Tom Bs.Dr.

Electronics

*mp-f*

*mf-f*

*f*

Harm. Trill (Partial 3)

(Partial 5)

(Partial 7)

holding in air, manipulate pitch with movements of the gong

110

Trpt. (Bb)

Vlc. (Partial 9) (Partial 11+)

Gongs

Percussion

Sn. Tom Bs.Dr.

Electronics

ALL OFF\* Trigger 7

♩ = 65

116

Trpt. (Bb) c. 2'10" Harmon In

Vlc. c. 2'10" Mute in con sord., arco

Gongs c. 2'10" Bow and strike gongs freely. Let Ring. Notation is merely a sample depiction.

Percussion Silently hang gongs c. 1'15" (tom) c. 55"

Sn. Tom Bs.Dr.

Electronics

pppp ff

8 5

fade-in

122

Trpt. (Bb)

Vlc. pizz.

Gongs

Percussion

Sn. Tom Bs.Dr.

Electronics

128

Trpt. (Bb)

Vlc.

Gongs

Percussion

Sn.  
Tom  
Bs.Dr.

Electronics

arco

pizz.

arco

134

Trpt. (Bb)

Vlc.

Gongs

Percussion

Sn.  
Tom  
Bs.Dr.

Electronics

3

140

Trpt. (Bb)

Vlc.

Gongs

Percussion

Sn.  
Tom  
Bs.Dr.

Electronics

3

pizz.

arco

pizz.

146

Trpt. (Bb)

Vlc. arco pizz. arco pizz.

Gongs

Percussion

Sn. Tom Bs.Dr.

Electronics

152

Trpt. (Bb)

Vlc. arco sul pont.

Gongs

Percussion

Sn. Tom Bs.Dr.

Electronics

158

Trpt. (Bb)

Vlc.

Gongs

Percussion

Sn. Tom Bs.Dr.

Electronics

begin very gradual fade out

164

Trpt. (Bb)

Vlc.

Gongs

Percussion

Sn. Tom Bs.Dr.

Electronics

*pp* *mp* *pp* *mp* *pp*

*p*

Only strike lowest gong, continue bowing rest

170

Trpt. (Bb)

Vlc.

Gongs

Percussion

Sn. Tom Bs.Dr.

Electronics

*mp* *pp* *p* *sim.*

*pp* *p* *sim.*

As written

*mp*

Fader 5 OFF\*

176

Trpt. (Bb)

Vlc.

Gongs

Percussion

Sn. Tom Bs.Dr.

Electronics

Fade with Gong

Fade with Gong

Let ring

Fade with Gong

## Chapter Three

### ***Grey on Indigo, Faded***

*for Pierrot ensemble and field recording*

## Overview of Method

*Grey on Indigo, Faded* is a piece composed for meditation and stillness. It is written for flute, clarinet, violin, violoncello, and piano with accompanying field recording. Both its form and materials are influenced by the breath cycle and more generally, the interdependence of something (presence) and nothing (absence).

Due to the wide variability of performance spaces (room size, shape, material, humidity, noise floor, etc.) and this work's reliance on long silences between notes, I chose to compose these *spaces-between* to ensure a certain consistency between performances. My solution was to create and play back a field recording of a quiet landscape (in four-channels) around the audience and musicians at a low volume, just above the noise floor of the venue. This recording was made in Elk Island National Park, near Edmonton, Alberta, in October of 2022.

The form of the piece is divided into two main sections (herein known as A and B), separated by a minute-and-a-half instrumental break. The A section, lasting approximately eleven minutes, represents the inhale, gradually filling the space with instrumental sounds that increasingly overlap as time progresses. Following the section break, the B section, representing the exhale, slowly unravels and expands on earlier materials until the field recording, once again, becomes the dominant feature. The B section also features, for the first time in the piece, harmonic passages on the piano. These chords present the listener with all of the melodic content of the piece and represent the saturation of the lungs with air at the peak of the breath.

Nearly all melodic and harmonic material is extracted from Forte set class 5-Z18 (01457), in its original form and inversion. The material develops minimally in order to avoid creating a predictable trajectory and to keep focus on momentary instances of sound. This is also achieved

through irregular pacing and minimal repetition of materials. When something is repeated, it is to amplify the effect of the sound's absence in the moments that follow.

Like *w.RivEr.ST & nimbi*, this piece uses proportional notation in order to encourage performer communication and to allow flexibility in pacing. The primary differences are that there are no time markers beyond the second page of the score and a stopwatch is not to be used. This is to remove a musician's need to focus and strictly adhere to any exact timing cues and instead, allowing them to move at a pace that feels appropriate to them at the time of performance.



**Program Notes**

Space and stillness are present in everything, corollary to the constant of activity and motion. Between sounds, and even within them, there is anticipation and the potential for more to come into being, to continue being, or to not. This relationship between potential and realization is central to *Grey on Indigo, Faded*, where stillness is on equal footing to motion; silences emerge from sound just as much as sounds emerge from silence.

# Grey on Indigo, Faded

for quintet and fixed media

by Thomas Powell

# Grey on Indigo, Faded

for Flute, Clarinet in Bb, Violin, Violoncello,  
Piano, and Field Recording

Full Transposed Score (2022)

by Thomas Powell

© tAAp Music 2022

# Performance Notes

## Time

One system is approximately 30 seconds.

Time is to be felt; do not use a stopwatch.

Phrase entrances are to be treated with care, begun patiently, and only when they makes musical sense.

Go slower than you think you should.

## Dynamics

All notes are quiet, separate from the electronics, yet seamlessly connected.

Note attacks are very soft or from *niente*.

Note releases are smooth with a small decrescendo.

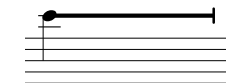
Always maintain note integrity and clarity, above all else.

## Silence

Maintain tension and intention when not playing.

Silences frame playing as much as playing frames silence.

## Score

 = Sustain pitch until end of line.

Absence of staff indicates silence.

Accidentals only apply to adjacent pitch.

All notes are *non-vib*.

Piano sustain pedal is held down throughout, even when staff is absent.

Score is Transposed

Duration: c. 20' to 24'

# Electronics

## Requirements

A laptop with Cycling '74's MaxMSP (8.0 or later).

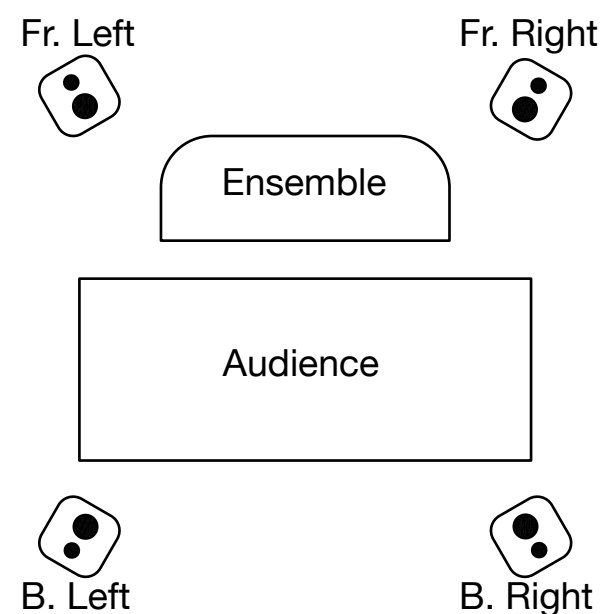
A sound card that has 4 balanced outputs and can connect to the laptop.

4 speakers with appropriate cables to connect to sound card and to a power source.

## Setup

Speakers are to be placed surrounding the audience and ensemble as a front stereo pair and a back stereo pair (see below).

The laptop can be set up wherever is convenient for connections.



## Performance

Volume levels should be set beforehand to a low level where the fine details of the field recording are just audible in the space. The acoustic instruments, when played softly, should be clearly audible yet balanced with the recording.

At the beginning of the piece, the audio should be triggered simultaneously with the first piano note.

At the end of the piece, the recording should be faded out 15 seconds following the end of the final note.

## Max Patch

Ensure the audio output of Max is set to your sound card.

Set your output paths (speaker numbers) in the [mc.dac~] object. This can be done by manually changing the numbers in the object, or by sending the numbers as a message to the [mc.dac~].

Start audio processing in Max with the "startwindow" message.

Ensure your audio levels are set with the gain fader.

Hit the space bar to start audio. The toggle will light up to show it is running. A secondary press will stop and reset audio.

Hit "f" to begin fade out of the audio. When the fade out is completed, audio will automatically stop and reset.

Email [thomas.powell13@gmail.com](mailto:thomas.powell13@gmail.com) for .maxpat and audio files.

*Grey on Indigo, Faded*

c. 30"

Flute

Clarinet in Bb

Violin

Violoncello

Piano

Red. →



c. 1'

Fl.

Cl.

Vi.

Vlc.

Pn.

Cl.

c. 1'30"  
43

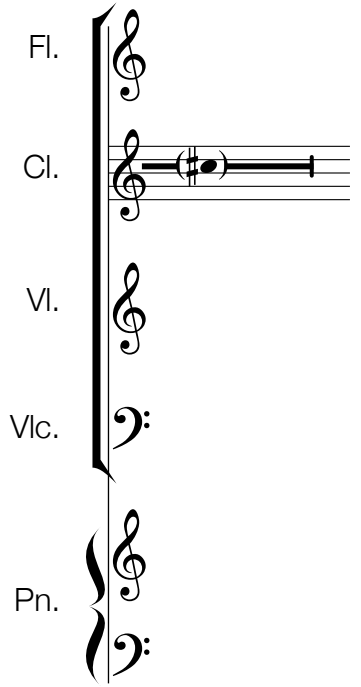
Fl.

Cl.

Vi.

Vlc.

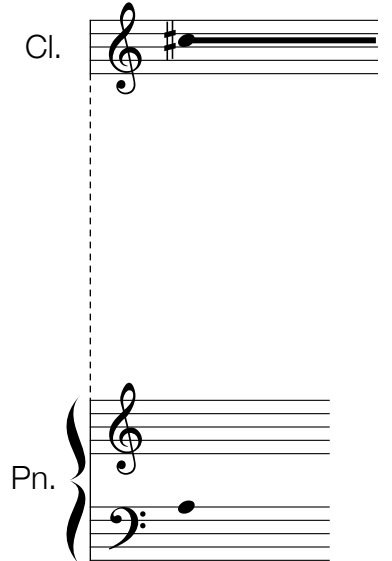
Pn.



Musical notation for the beginning of the piece. The Flute (Fl.) staff is empty. The Clarinet (Cl.) staff has a single note on the first line (F#4) with a fermata. The Violin (Vi.) staff is empty. The Viola (Vlc.) staff is empty. The Piano (Pn.) staff is empty.

Cl.

Pn.



Musical notation for the end of the piece. The Clarinet (Cl.) staff has a single note on the first line (F#4) with a fermata. The Piano (Pn.) staff has a single note on the first line (F#4) with a fermata. A dashed vertical line connects the two staves.



*sim.*

Fl.

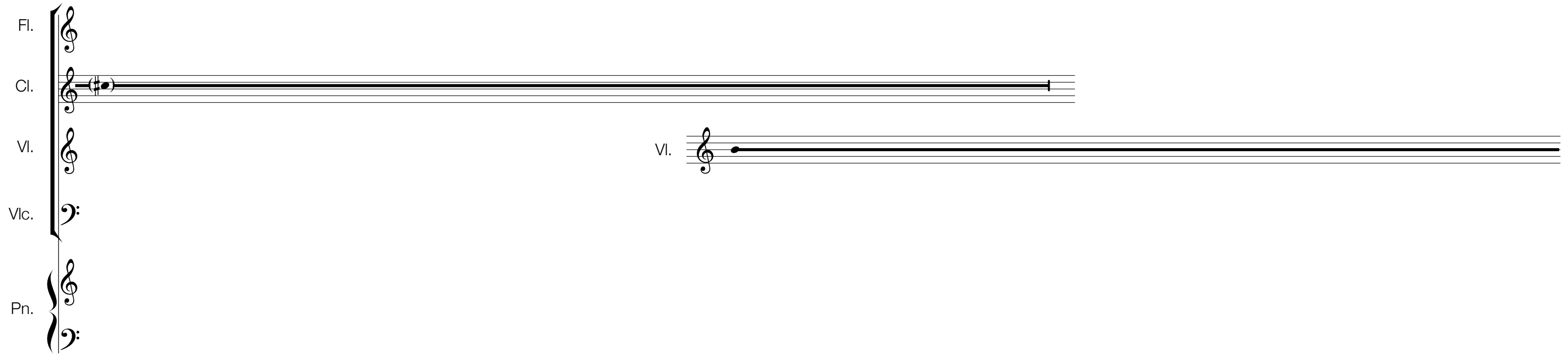
Cl.

Vi.

Vlc.

Pn.

VI.



Musical notation for a long sustained section. The Flute (Fl.) staff is empty. The Clarinet (Cl.) staff has a single note on the first line (F#4) with a long horizontal line extending across the page. The Violin (Vi.) staff has a single note on the first line (F#4) with a long horizontal line extending across the page. The Viola (Vlc.) staff is empty. The Piano (Pn.) staff is empty. A separate Violin (VI.) staff is shown with a single note on the first line (F#4) and a long horizontal line extending across the page.

Fl.  
Cl.  
Vi.  
Vc.  
Pn.

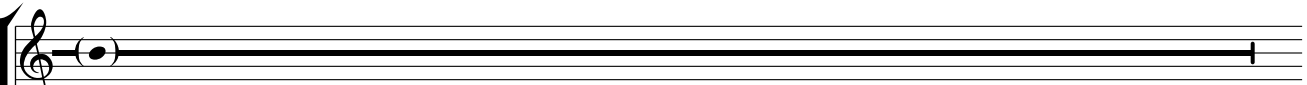


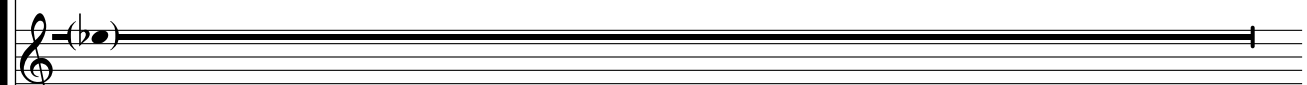
Fl.  
Cl.  
Vi.  
Vc.  
Pn.

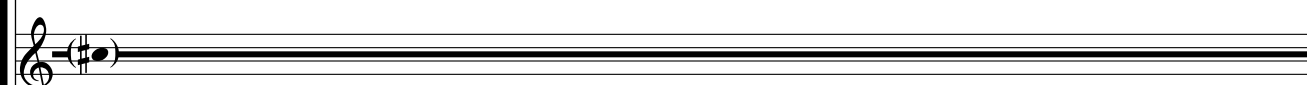
Fl.


Cl.  
Vi.  
Pn.




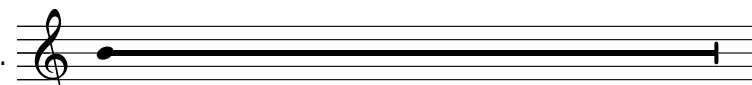
Fl. 

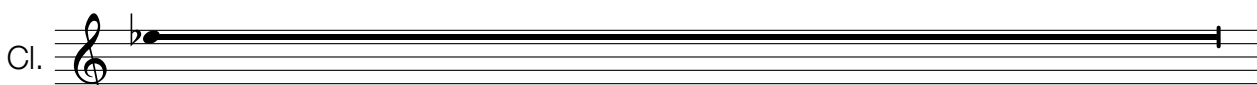
Cl. 

Vi. 


Vlc. 


Pn. 


Fl. 

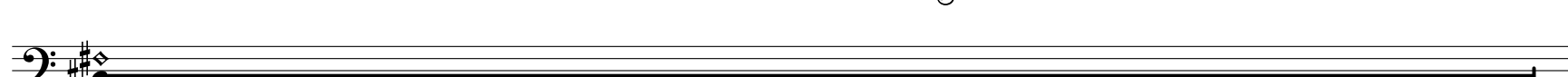
Cl. 




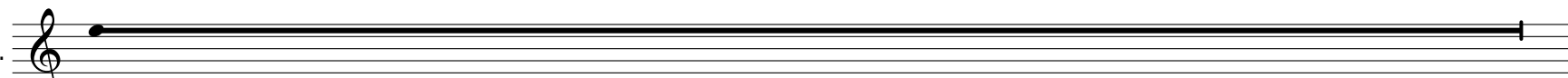
Fl. 

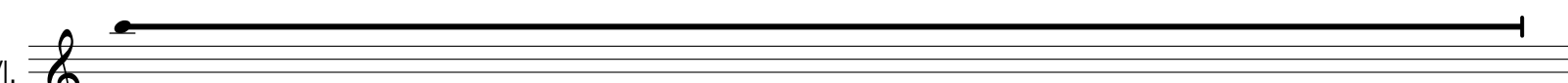
Cl. 

Vi. 

Vlc. 

Pn. 

Fl. 

Vi. 

Fl.  
Cl.  
Vi.  
Vlc.  
Pn.

A vertical stack of five musical staves. From top to bottom: Flute (Fl.), Clarinet (Cl.), Violin (Vi.), Viola (Vlc.), and Piano (Pn.). Each staff has a treble clef and a key signature of one flat (Bb). The Flute, Clarinet, and Piano staves have a single note on the first line (F4). The Violin and Viola staves have a single note on the first space (F3).



Fl.  
Cl.  
Vi.  
Vlc.  
Pn.

A vertical stack of five musical staves, identical to the one above. Each staff has a treble clef and a key signature of one flat (Bb). The Flute, Clarinet, and Piano staves have a single note on the first line (F4). The Violin and Viola staves have a single note on the first space (F3).

Pn.

Two musical staves for the Piano (Pn.), one treble and one bass clef. Both have a key signature of one flat (Bb). The treble staff has a single note on the first line (F4). The bass staff is empty.

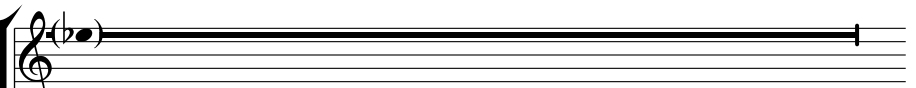


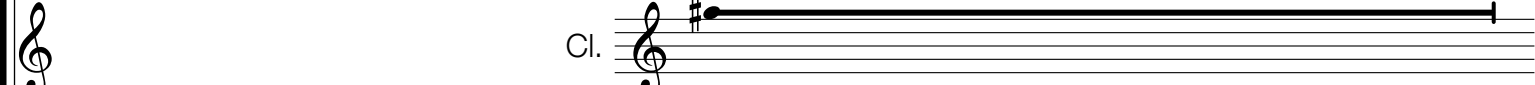
Fl.

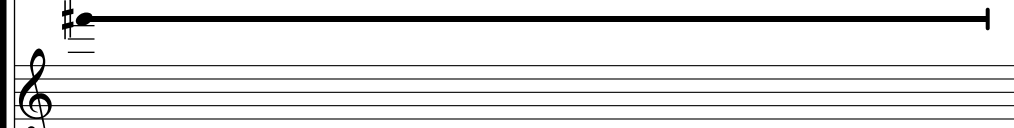
A single musical staff for the Flute (Fl.) with a treble clef and a key signature of one flat (Bb). It contains a single note on the first line (F4) with a flat symbol (Bb) to its left.


Vlc.  
Pn.


Two musical staves. The top staff is for the Viola (Vlc.) with a treble clef and a key signature of one flat (Bb). It contains a single note on the first space (F3) with a fermata above it. The bottom staff is for the Piano (Pn.) with a treble and bass clef and a key signature of one flat (Bb). The treble staff has a single note on the first line (F4). The bass staff is empty.

Fl. 

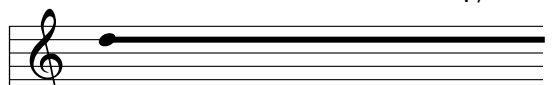
Cl. 

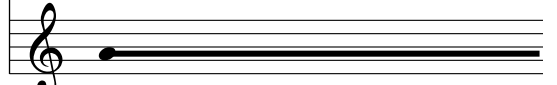
Vi. 

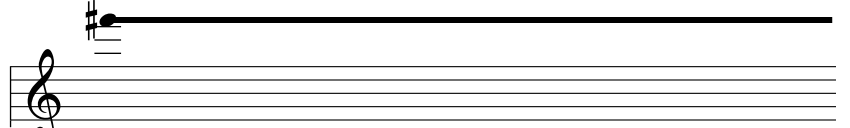
Vlc. 

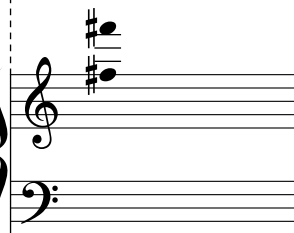
Pn. 

47

Fl. 

Cl. 

Vi. 

Pn. 

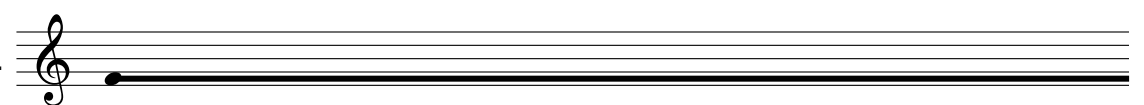
Fl. 

Cl. 

Vi. 

Vlc. 

Pn. 

Cl. 

Fl.  
Cl.  
Vi.  
Vlc.  
Pn.

Musical notation for Flute (Fl.), Clarinet (Cl.), Violin (Vi.), Viola (Vlc.), and Piano (Pn.). The Flute part has a treble clef and a whole note. The Clarinet part has a treble clef and a whole note. The Violin part has a treble clef and a whole note. The Viola part has a treble clef and a whole note. The Piano part has a grand staff (treble and bass clefs) and a whole note.

Fl. 48  
Vi.  
Vlc.  
Pn.

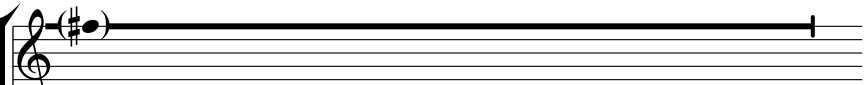
Musical notation for Flute (Fl.), Viola (Vi.), Violin (Vlc.), and Piano (Pn.). The Flute part has a treble clef and a whole note. The Viola part has a treble clef and a whole note. The Violin part has a treble clef and a whole note. The Piano part has a grand staff (treble and bass clefs) and a whole note.

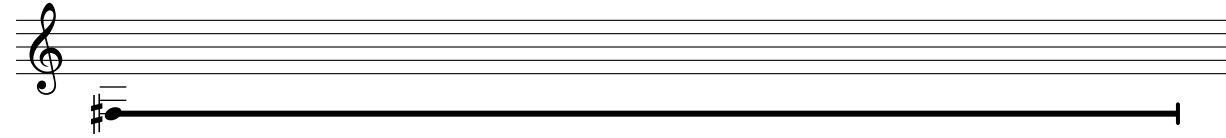
Fl.  
Cl.  
Vi.  
Vlc.  
Pn.


Musical notation for Flute (Fl.), Clarinet (Cl.), Violin (Vi.), Viola (Vlc.), and Piano (Pn.). The Flute part has a treble clef and a whole note. The Clarinet part has a treble clef and a whole note with a sharp sign. The Violin part has a treble clef and a whole note. The Viola part has a treble clef and a whole note with a fermata. The Piano part has a grand staff (treble and bass clefs) and a whole note.


Fl.


Musical notation for Flute (Fl.) with a treble clef and a whole note with a sharp sign.

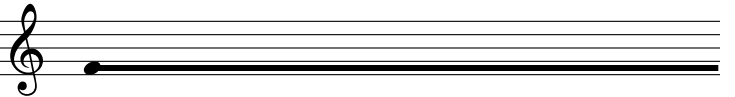
Fl. 

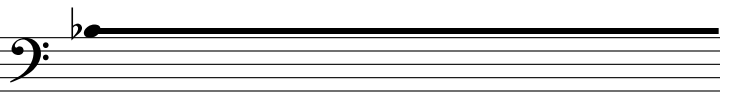
Cl. 

Vi. 

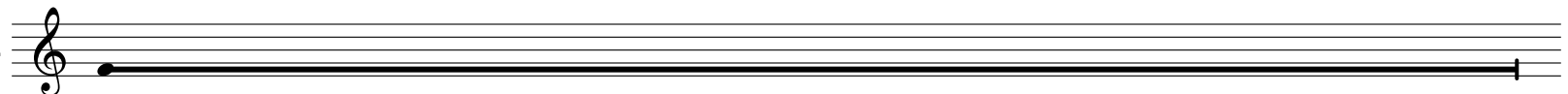
Vlc. 


Pn. 

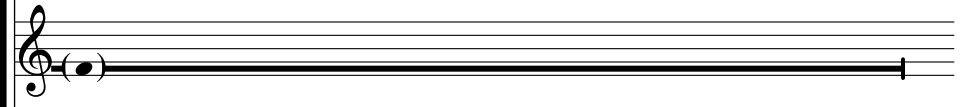
Vi. 

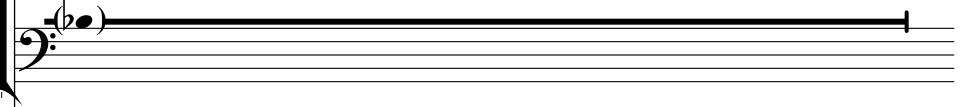
Vlc. 




Fl. 

Cl. 

Vi. 


Vlc. 


Pn. 

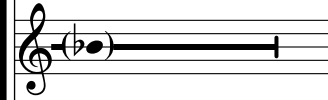
Vi. 

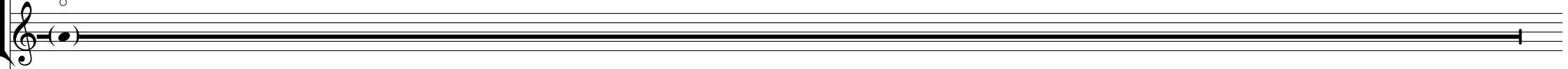
Vlc. 


Pn. 

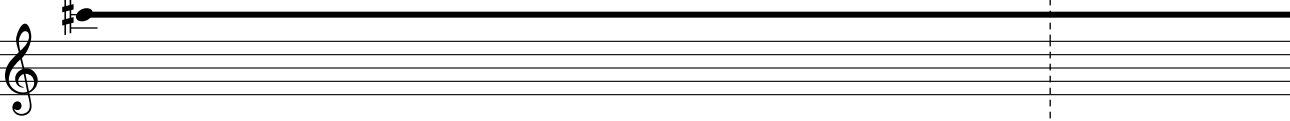
Fl. 

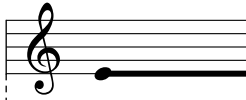
Cl. 

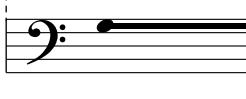
Vi. 

Vlc. 

Pn. 

VI. 

Cl. 

Vlc. 



Fl. 

Cl. 

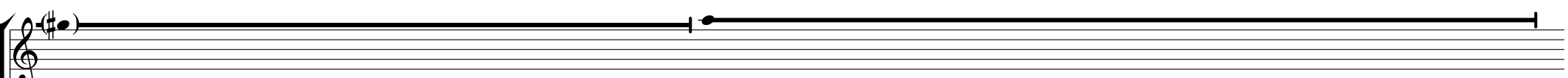
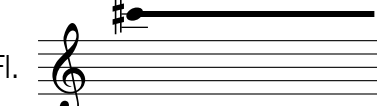
Vi. 

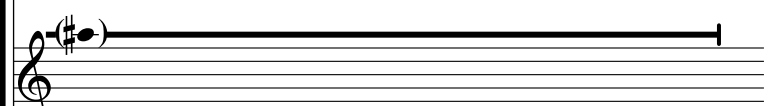

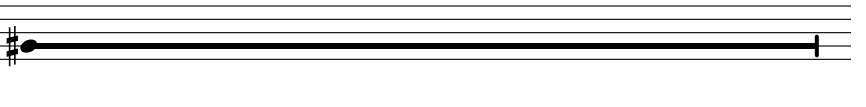
Vlc. 


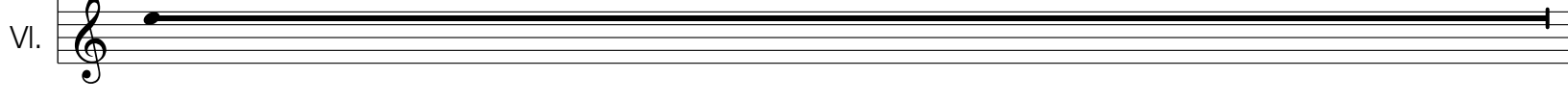
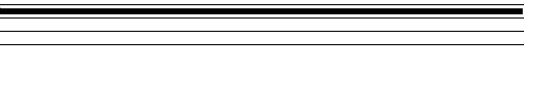
Pn. 


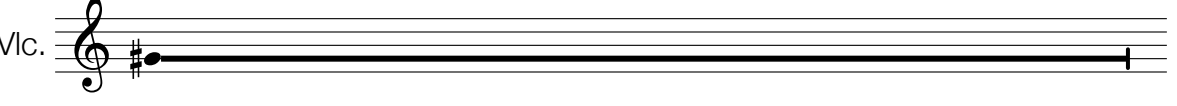
Pn. 


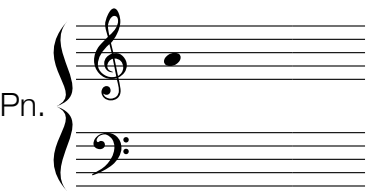

Cl. 

Fl.  Fl. 

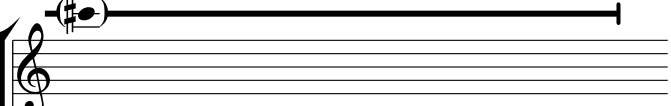
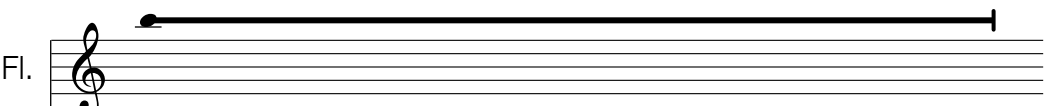
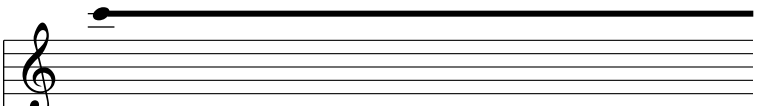
Cl.  Cl.  Cl. 


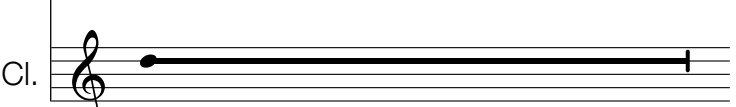
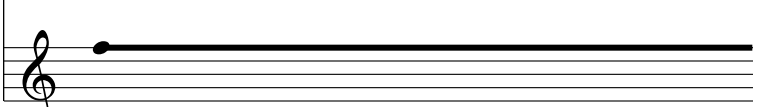
Vi.  Vi.  Vi. 

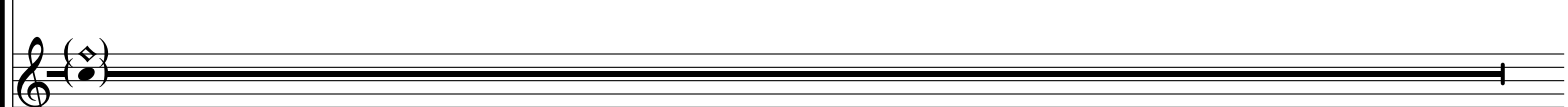
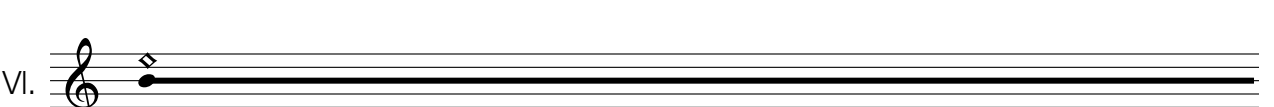
Vlc.  Vlc. 

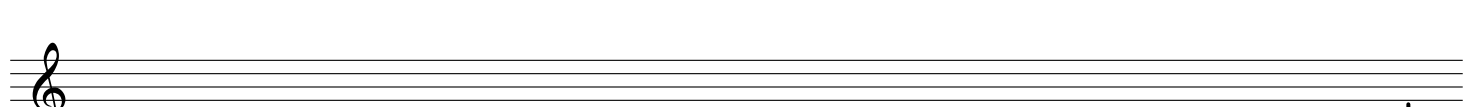
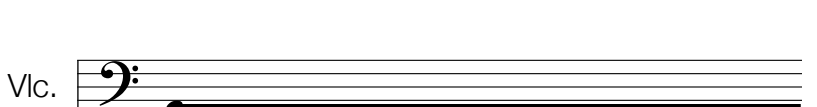
Pn.  Pn.  Pn. 


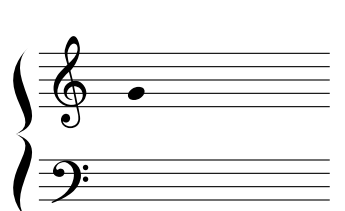
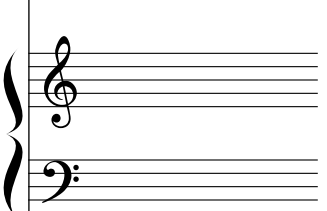


Fl.  Fl.  Fl. 

Cl.  Cl.  Cl. 

Vi.  Vi. 

Vlc.  Vlc. 

Pn.  Pn.  Pn. 

Fl. 52

Cl. Cl.

Vi.

Vlc.

Pn.



Fl.

Cl.

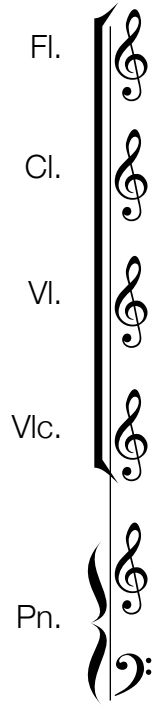
Vi.

Vlc.

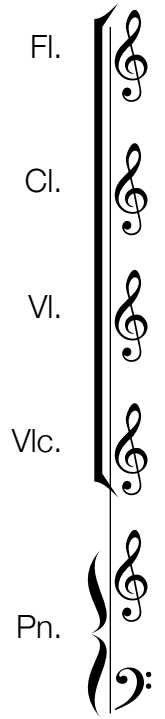
Pn.



Fl.  
Cl.  
Vi.  
Vlc.  
Pn.

A vertical stack of five musical staves. From top to bottom: Flute (Fl.), Clarinet (Cl.), Violin (Vi.), Viola (Vlc.), and Piano (Pn.). Each staff begins with a treble clef, except for the Piano staff which has a bass clef. The staves are connected by a vertical line on the right side.

Fl.  
Cl.  
Vi.  
Vlc.  
Pn.

A vertical stack of five musical staves, identical in layout to the first block. From top to bottom: Flute (Fl.), Clarinet (Cl.), Violin (Vi.), Viola (Vlc.), and Piano (Pn.). Each staff begins with a treble clef, except for the Piano staff which has a bass clef. The staves are connected by a vertical line on the right side.

Pn.



Pn.



Fl.  
Cl.  
Vi.  
Vlc.

Pn.

Vi.  
Vlc.

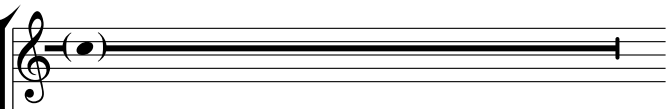
Fl. Fl. Cl. Cl. VI. VI. Vlc. Vlc. Pn. Pn.

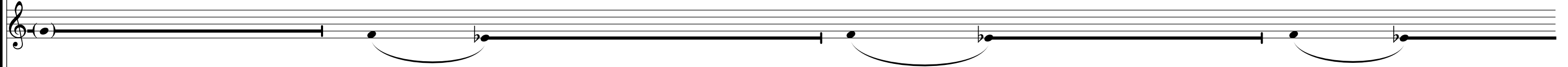
Fl. Fl. Cl. Cl. VI. VI. Vlc. Vlc. Pn. Pn.

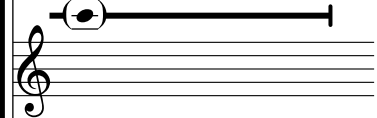
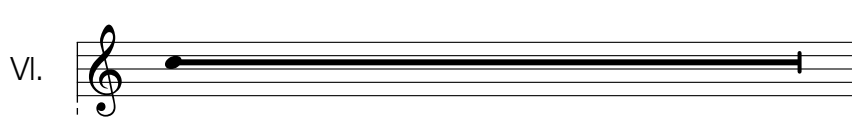
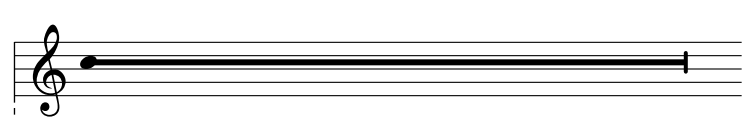
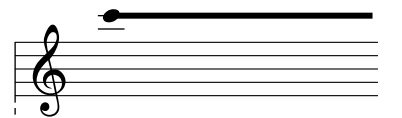


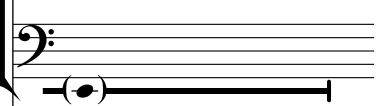
Fl. Fl. Cl. Cl. VI. VI. Vlc. Vlc. Pn. Pn.


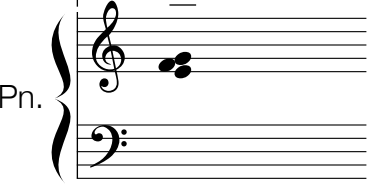
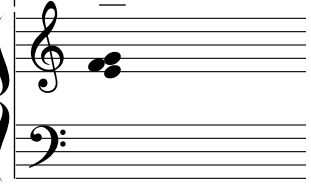
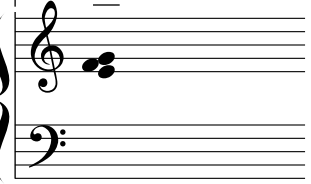
Fl. Fl. Cl. Cl. VI. VI. Vlc. Vlc. Pn. Pn.

Fl. 


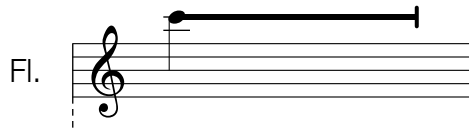
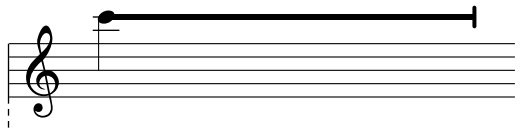
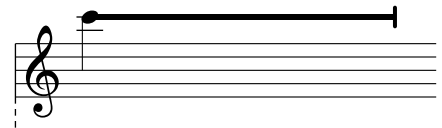
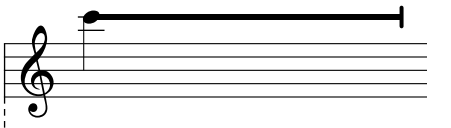
Cl. 

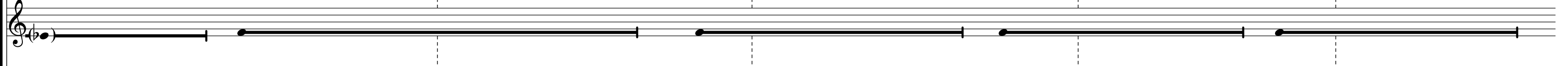
Vi.    

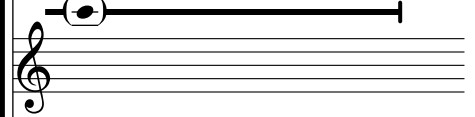
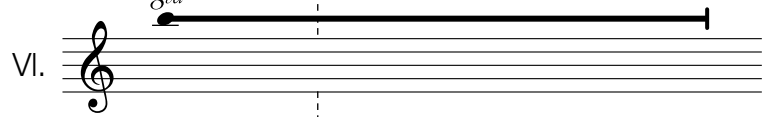
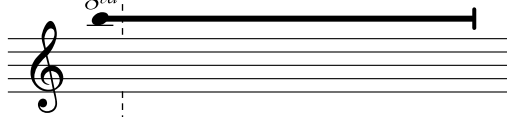
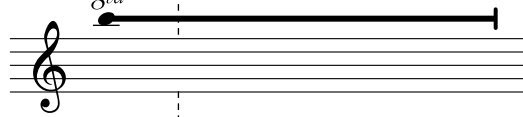
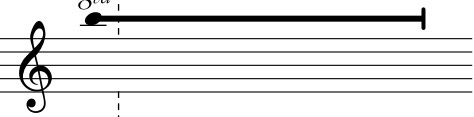
Vlc. 


Pn.    


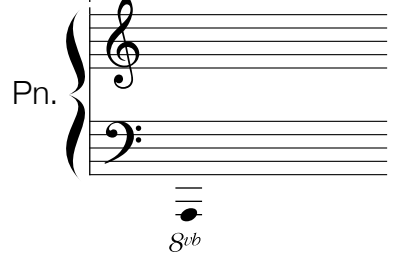
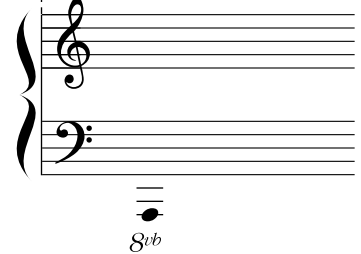
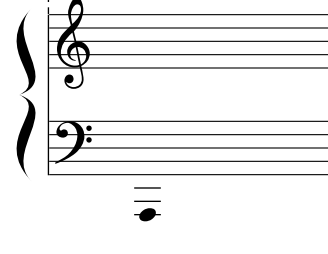
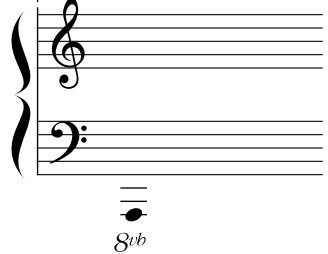


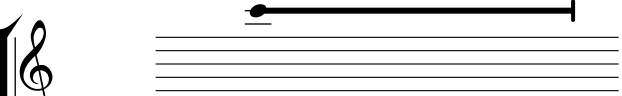
Fl.     

Cl. 

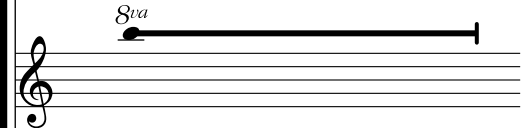
Vi.     

Vlc. 

Pn.     


Fl. 


Cl. 

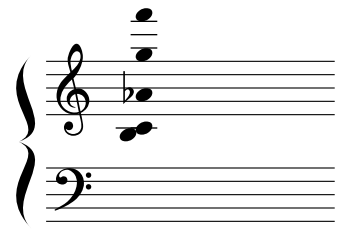
Vi. 

Vlc. 


Pn. 


Pn. 










Fl. 

Cl. 

Vi. 

Vlc. 

Pn. 





Fl.  
Cl.  
Vi.  
Vlc.  
Pn.



Fl.  
Cl.  
Vi.  
Vlc.  
Pn.

Fl.  
Cl.  
Vi.  
Vlc.  
Pn.

Vlc. | | |

Pn. | | |





Fl.  
Cl.  
Vi.  
Vlc.  
Pn.


Vlc. | | |


Vi. | | |


Pn. | | |


Fl. 

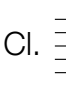
Cl. 


VI. 

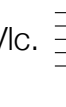
Vlc. 


Pn. 


Fl. 

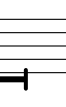
Cl. 

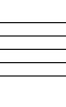
VI. 


Vlc. 

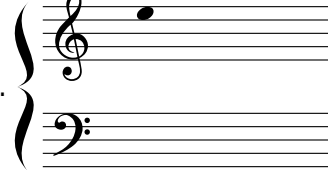
Pn. 


Fl. 


Cl. 

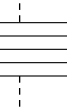
VI. 

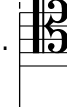
Vlc. 

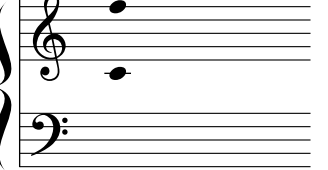
Pn. 

Fl. 


Cl. 


VI. 


Vlc. 


Pn. 





Fl. 


Cl. 


VI. 

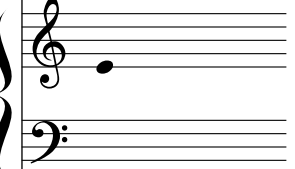
Vlc. 

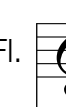
Pn. 

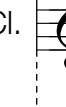
Fl. 

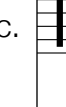
Cl. 

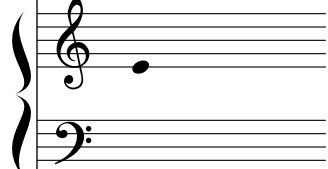
Vlc. 


Pn. 

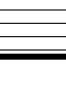
Fl. 

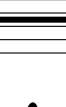
Cl. 


Vlc. 

Pn. 

Fl. 

Cl. 

Vlc. 

Pn. 



Fl. Fl. Cl. Cl. VI. VI. Vlc. Vlc.

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Fl. Fl. Cl. Cl. VI. VI. Vlc. Vlc.

Fl. Fl. Cl. Cl. VI. VI. Vlc. Vlc.

Fl. Fl. Cl. Cl. VI. VI. Vlc. Vlc.

Fl. Fl. Cl. Cl. VI. VI. Vlc. Vlc.

Fl. Fl. Cl. Cl. VI. VI. Vlc. Vlc.

Fl.  
Cl.  
Vi.  
Vlc.

Fl. Cl. Vi. Vlc.



Fl.  
Cl.  
Vi.  
Vlc.

Fl. Cl. Vi. Vlc.



Fl.  
Cl.  
Vi.  
Vlc.

Fl. Cl. Vi. Vlc.



**Appendix A: Supplementary Files**

## Recordings of Compositions (Folder)

*Below, the Boarhound and the Boar – Thomas Powell (2022).wav*

*Grey on Indigo, Faded – Thomas Powell (2022).wav*

*w.RivEr.ST & nimbi – Thomas Powell (2021).wav*

## Electronic Performance Audio Files (Folder)

*Boarhound – Fader\_1.wav*

*Boarhound – Fader\_2.wav*

*Boarhound – Fader\_3.wav*

*Boarhound – Fader\_4.wav*

*Boarhound – Trigger\_1.wav*

*Boarhound – Trigger\_2.wav*

*Boarhound – Trigger\_4.wav*

*Boarhound – Trigger\_6.wav*

*Boarhound – Trigger\_7.wav*

*Boarhound – Trigger\_8.wav*

*Grey on Indigo, Faded – Field Recording Stereo Mix.wav*

## **Appendix B: Performance Information**

### *w.RivEr.ST & nimbi*

Performed on December 14<sup>th</sup>, 2021 at Convocation Hall, Old Arts Building, University of Alberta.

Performed by Alison Balcetis on soprano saxophone; Kendra Heslip on alto saxophone; Charles Stolte on tenor saxophone; Ben Whittier on baritone saxophone.

### *Below, the Boarhound and the Boar*

Performed on April 14<sup>th</sup>, 2022 at Convocation Hall, Old Arts Building, University of Alberta.

Performed by Russell Whitehead on trumpet; Conrad Sobieraj on violoncello; Mark Segger on percussion; Thomas Powell on electronics. Conducted by Andriy Talpash.

### *Grey on Indigo, Faded*

Performed on December 14<sup>th</sup>, 2022 at Convocation Hall, Old Arts Building, University of Alberta.

Performed by Shelley Younge on flute; Don Ross on clarinet; James Cockell on violin; Conrad Sobieraj on violoncello; Maria Protodyakonova on piano; Thomas Powell on electronics. Conducted by Andriy Talpash.

All concerts recorded and mixed by Russell Baker and Patrick Strain.