Selected Works of Steven Matthew Gomez (Diaz) 2015-2018

Steven M. Gomez

University of New Mexico

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Selected Works of Steven Matthew Gomez (Diaz)

2015-2018

Composition Thesis Portfolio
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Abstract

The focus of my work as a composer during my Master’s program at the University of New Mexico from 2015 to 2018 has been multidisciplinary collaboration between artists and the exploration of timbre through the integration of improvisation and electroacoustic manipulation. Operating under the pseudonym of Steven Diaz, the musical scores contained within consist of five separate scores that exemplify this artistic pursuit. The four artists that I collaborated with over the span of three years ranged from instrumental performers to visual artists. The exploration of timbre through improvisation and electroacoustic integration stems from a desire to explore musical expression beyond conventional parameters such as melody, harmony, or rhythm.

The concluding two chapters discuss a more in depth perspective behind my motivations with regard to collaboration and timbral exploration and how I came to focus on them through over the course of my Master’s program.
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Chapter 1:

Infinite Horizon for Amplified Oboe Solo

_Infinite Horizon_ was written for and in collaboration with, Kyle Bruckmann, well-known improviser and specialist in contemporary/extended technique for the oboe. The original version of the piece was written in the fall of 2015 and was premiered February 4th 2016 by Bruckmann. The piece was inspired by my observing bird migrations that fall at my family’s property at Bluewater Lake near my home town of Gallup, New Mexico. Many of my works are inspired by nature, and that area has served as a creative retreat for me from the busy urban setting of Albuquerque, where I have lived since 2004.

Many of the techniques used in the piece are meant to invoke or mimic bird sounds. The key clicks, for example, are representations of the flapping of wings. The melodic contour of each line and the pitch bends are allusions to the calls of geese, ducks, and other migratory birds. The long and expansive multiphonics and air effects are representative of the sound of air and the seemingly unending horizon toward which birds fly on their annual journey, hence, the title of the work. The primary literary source studied for insight with regard to notation and techniques used in this piece came from Libby Van Cleve’s _Oboe Unbound_.\(^1\) Several other techniques utilized in the work were developed by Bruckmann himself, products of his own experimentation and improvisatory language. The “kissing” technique seen after rehearsal letter K is one such example. Through email correspondences, and in-person rehearsals, we

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collaborated on which techniques and notation matched my vision for the piece’s soundscape. Working directly and openly with a specialist in the techniques and style in which I was writing, I believe, aided in the piece’s completion speed, and my overall satisfaction with the final product.

The large-scale form of the piece is in three parts: slow, fast, and slow again with the motivic material forming an A-B-AB form. The piece utilizes proportional notation based on time durations. Measures in the A and AB sections are worth 3 seconds and worth 1 second in the B section. The original version of the score was written so that the time durations between musical events were organized in a multiplicative ratio of 1:2:3 that would increase (i.e. 1X=1”:2”:3”, 2X=2”:4”:6” etc.) and then invert (3:2:1) and decrease. (See Figure 1) The rationale behind this was to have time feel as though it was expanding and contracting like an accordion. This was later adjusted or even abandoned in some sections for the sake of time, as the piece was far too long and exhausting for both performer and myself as a listener. The original structure was preserved in the opening section.

The improvisatory elements of the piece arise in the sparseness of traditional rhythmic notation and the reliance on the performer to interpret contour lines on many of the sustained notes as either pitch bends or variances in vibrato. The performer is instructed to perform the musical gestures relative to where they are within the designated time duration of each measure. There are instances where familiar rhythmic notation arises within the piece, as I was still wrestling with how much interpretive and rhythmic freedom I wanted to give the performer at that point in my compositional practice. The idea of what I will call “Rhythmic Relativity” is one that would extend to and be expanded on in many of my later pieces as my
studies progressed. The contour lines attached to the sustained durations are to be interpreted
as either amplitude vibrato or pitch vibrato. I use the term to describe my allowance of musical
events to happen in less restrictive, approximated metric moment within the score. Musical
events, as will be seen in the works provided, are allowed to happen within relative proximities
over specified time durations rather than demanding their execution at precise or exact
moments. The melodic content used in the piece was derived by extracting of the “notes”
present in the multiphonics that are used throughout the piece in an attempt to create a
superficial continuity. The multiphonics themselves have no harmonic significance, as I desired
the timbral effect made by those particular multiphonics and not their harmonic sonority. The
pitches were then organized gesturally to sound similar to bird calls. See Figures 2 and 3 for
eamples of my notational decisions.

Figure 1 example of time ratio
Figure 2 vibrato variances

Figure 3. Key clicks “wings flapping”.

\[ \text{rapid vibrato} \]

\( PP \)

\( mp \)
Infinite Horizon

For Amplified Oboe Solo

S.M. Diaz
Notation Legend

For further inquiry on playing techniques the composer suggests referencing:

All graphics are to be interpreted using the designated technique by the performer over the given time duration. Rhythmic accuracy need not be exact unless specifically notated.

**Harmonics**
Produced by opening an octave key as to overblow a lower note to sound an octave or fifth higher. Resulting pitch should be what is notated.

**Pitch Bends**
Bend the pitch in the direction indicated.

**Multiphonics**
Multiphonics have fingerings within the score. Alternate fingerings may be used or explored for ease of playing. Pitch content is less important than accoustical affect.

**Vibrato Techniques**
Interpret contour lines and performe vibrato accordingly. Curved waves are to be interpreted as amplitude vibrato while jagged lines are to be interpreted as pitch vibrato.

**Key Clicks**
Player clicks keys without air over given time period.

**Inh./ Exh.**
Player pushes air through the horn either by inhaling or exhaling as indicated. Moments where the player has time to remove the reed and blow through the horn are indicated in the score. Otherwise, leave reed attached.

**Rolling Tone**
Increase lip pressure after note has sounded resulting in a beating sound.

**Kiss**
Suck on the reed in such a way that causes a "kissing" sound.

**Heavily clicks**
The performer click keys heavily and uses strong unpitched breath attacks.

**Tongue Stops**
Use the tongue to stop the pitch abruptly creating a thumping sound.

**Blown clicks**
Blow air through the horn without creating pitch and click keys.

**On amplification**
The player will need to be mic'ed and amplified over a loud speaker in order for quieter techniques to be herd with clarity for the audience. Reverberation should be added via external effects pedal or D.A.W for added accoustical affect unless the performance space provides ample natural reverberation.
Infinite Horizon

Program Note

_Infinite Horizon for Amplified Oboe Solo_ was written in the fall of 2015 and premiered the following February by Kyle Bruckmann, an expert in contemporary oboe technique and improvisation. Many of the techniques utilized by the piece came from the book _Oboe Unbound_ by Libby Van Clieve. The original inspiration behind the work came while I was visiting my parents’ property at Bluewater Lake near my home town of Gallup, New Mexico. I have always enjoyed the quiet and creative sanctuary that this area provided me from the chaotic and noisy city of Albuquerque where I was living at the time this piece was written. During my visit I witnessed the fall migration of birds like ducks, geese, and other migratory avian creatures. Struck by a hint of jealousy of the freedom those birds had to travel thousands of miles in search of more agreeable climate, I imagined what it must sound like to be flying in formation with a collective of other birds. The sounds and techniques used in the piece are meant to invoke the sounds of air, wings flapping, and the distant calls, squawks, and cries of different bird species. The long multiphonics, pitch bends, and gradual expanding and contracting of melodic motion are meant to give the listener a sense of a broad expanse of time, as if they were flying toward an Infinite Horizon.
Chapter 2:

Water Song for Fire (Tears of Vulcan for Rubens’ Tube)

This piece was written in collaboration with Erin Fussell, then MFA student and multimedia artist. Fussell and I met during our time performing in the University of New Mexico’s Electric Ensemble, known as the Chuppers, in the spring of 2015. Fussell approached me after several “Chupper Jams” and asked if I was interested in collaborating on the project. She had already constructed the tube at that time, however, she was lacking a musical component and so requested that I write something for her. Captivated by the scientific marvel, driven by my own intrigue for writing for such a unique instrument, and having a positive experience performing with Fussell in the Chuppers, I immediately agreed.

A Rubens’ Tube functions as a natural oscilloscope and is named after the physicist who developed the experiment, Heinrich Rubens (1865-1922). A cylindrical metal tube is filled with gas, in our case propane, with small holes drilled equidistant into the top of the tube allowing the gas to escape in a controlled amount. At one end is an audio source, in our case a Marshal practice amplifier, in as close of proximity to the end of the tube as possible without damaging the speaker from the heat of the flame. A heat resistant plastic membrane was attached to the speaker end, functioning to contain the gas and to aid in the capturing of the sound projected by the speaker. The opposite end is closed off to contain the gas. The gas is then filled into the cylinder and lit. Sound is projected through the tube compressing the gas similarly to how sound is compressed through the atmosphere. There is subtle variance due to the density of the gas, but this is negligible. The sound waves move through the gas and the resulting flame
becomes a visual representation of the sound wave similar to what one would see manifest though an electronic oscilloscope.²

Figure 4 Water Song for Fire World Premier 11/11/2016

The artistic theme of the piece is to represent the four elements of life: water, fire, earth, and air. The tube itself was metaphorically representative of three of the elements, the tube being made of metal as earth, and the gas and flame accounting for the air and fire, however, the challenge came in trying to complete the sequence by adding a water element. This was achieved by composing a work entirely comprised of audio samples of water. The samples were taken from various locations: fountains across the city of Albuquerque, the Duck

Pond on UNM’s main campus, samples of rain from the summer monsoons, puddles on street corners, and the like. Other samples were taken in a controlled environment: my closet. Utilizing a tear dropper, I recorded single droplets of water falling into a variety of containers pre-filled to different levels of fluid such as steal pots and pans, plastic and glass containers, and a large assortment of drinking glasses. This provided me a good assortment of frequency range and timbers to manipulate and to compose-out from. The audio samples were then mixed, manipulated and composed in Logic Pro X. The piece is written in two sections specifically designed to focus on the frequency spectrum in an attempt to highlight exactly how the tube functions. The piece begins in a heavy bass range, moves to a focus on the high and mid-range frequencies and concludes by moving back to a low range as the track tapers off. The piece follows a basic arch form outlined in Figure 5.

The accompanying musical component to this collaborative work is titled Tears of Vulcan, named after the Ancient Roman god of metallurgy and volcanism, the Greek equivalent being Hephaestus. Vulcan was known for his grotesque appearance and melancholy demeanor. The turning of water into fire is a metaphor to what I imagined the sad god of volcanism would cry. To clarify, the collective performance including the Rubens’ tube is titled Water Song for Fire, however, the musical component has its own standalone function as a piece of music, and thus has its own title.3

The project took over a year from inception, to completion, and finally premier as it was plagued by technical difficulties at virtually every step from environmental and technical

3 Video clip of Water Song for Fire is available on Fussell’s website http://erinfussell.com/water-song-for-fire/
interference, to minor setbacks caused by artistic disagreements between myself and Fussell, and a lack of finding a suitable performance venue that would accommodate an open flame due to safety concerns. The original piece written for the tube, titled *Fire Dance*, was unsatisfactory for both myself and Fussell and was eventually discarded entirely. Frustrated and starting from square one, we wrestled with what kind of cohesive theme we wanted to pursue that fit our collective artistic vision. We eventually agreed on the elements of life motif, at which point the piece progressed relatively unhindered from an artistic standpoint.

A: Low Freq Focus  **Transition**: 1’03”  B: Hi Freq Focus 1’23”  **Coda** 3’18”

Figure 5 *Tears’ of Vulcan* form.
Chapter 3:

*Thrash for Percussion Ensemble*

This piece is an homage and reconciliation with my roots as a Heavy Metal musician and enthusiast. I began my musical studies at the age of ten learning to play guitar from my two older brothers, neither of whom could read music, but both of whom were huge fans of the Heavy Metal subgenre known as “Thrash” to which the piece owes its title. The musical style is a fusion of what is known in the culture as the New Wave of British Heavy Metal and Hardcore Punk Rock. The genre rose to prominence in the 1980s and many of the bands still record and tour to this day. Well-known bands, referred to in the community as the “Big Four”, are: Metallica, Megadeth, Slayer, and Anthrax. The genre is known for its angst, aggression, high energy attitude, a rapid-fire speed, and distorted sound. This attitude and sound serves as a voice of empowerment for the disenfranchised or rejected members of society who are drawn to the style. Its sometimes-controversial subject material ranges from taboo political and social commentary, to topics about Satanism, violence, suicide, rebellion, anarchy, war, depression and what could otherwise be considered the darker aspects of human societies and psyche.4

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4 For further clarification and insight into the culture surrounding Heavy Metal I suggest watching the documentaries:


The inspiration for the piece came from a reminiscence of jam sessions I used to have with past band mates, again none of whom could read musical notation, and our attempts to communicate musically and develop material. When it came to percussion, such communication relied on the mimicking of percussive sounds with our voices and bodies, choreographing rhythms more similarly to a dance or oral music traditions, rather than sitting down and notating the rhythms on paper. With this in mind, for the initial concept of the piece, I set out to explore a possible notational system that would capture the high energy, improvisatory and dance-like qualities of the Heavy Metal drum solo.

My initial research required me to separate myself from conventional ideas about musicality, particularly the necessity for rhythmic accuracy, and instead focus on the physicality of the percussionists, their kinesthetic awareness and intuitive musical language. Similar to how a guitar tablature works, I developed a way to map out where the percussionists were playing on the instrument relative to time using grid paper. Each five square grid equaled one second of time, and the vertical lines indicated instances of musical events on the different instrumental families present on a drum set. The grid system initially created was then redeveloped into the notation system seen in the score for clarity which can be seen in Figures 6 and 8.

The subjects of study I used to test this system are four of my favorite drummers from their respective subgenres of Metal. Dave Lombardo of Slayer and Nick Menza of Megadeth from the Thrash subgenre, Vinnie Paul Darrell from Pantera of the Extreme/Grove Metal subgenre, and Joey Jordison from Slipknot of the Nü Metal subgenre. Using YouTube to find videos showcasing their solo performances and exhibitions, I set out to see if it was possible to
map out their drum solos using the grid system. After many hours of viewing and replays I became comfortable with my methodology and eventually was satisfied with the outcome my experiment. As the study progressed, I noticed very subtle performance tendencies exhibited by each individual drummer as they played, many only fractions of a second long. I eventually took several of these motifs and decided to use them as source material from which to compose-out from.  

The instrumentation selected for this piece functions as a deconstructed representation of the drum set with each portion of the set being given to an individual player: toms, cymbals, snare, bass drum, etc. The goal of this deconstruction serves to showcase each respective family of percussion instruments within the drum set as well as to create a more complicated texture that no singular player could ever achieve due to the limitations of their own body. The addition of the metal pipe and brake dumb are deliberate puns based on the idea of the piece being inspired by “Heavy Metal”. The steal keg and bat are a direct reference to the band Slipknot who uses this combination in their performances regularly.

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Examples of YouTube clips studied for each drummer:


bigvintv. Vinnie Paul on DDRUMS. Vinnei Paul Darrell(drummer) Published November 5, 2008. https://www.youtube.com/watch?v=WH2_Yg0wm3I.


The theatrical elements used in the piece are references to live concert performance practices that I have witnessed many times at Metal shows. At Box C, for example, the piece is meant to mimic a “Drum Battle.” This can be seen in Figure 7. This common performance practice, executed during live concerts, pits performers, usually from different bands in a competitive musical setting where one is allowed to showcase their technique and performance style passing off or interrupting the musical line from one performer to the next. The piece’s conclusion is a free-form collective improvisation where the performers are told to interpret a graphic meant to be reminiscent of a “Black Metal” band’s logo, building to a climax and concluding with the conductor smashing the keg with great force, throwing the bat down in an aggressive and agitated manor, suddenly halting the performance and signaling the end of the piece.

Figure 6. Excerpt of Thrash’s notation.
Figure 7. Drum Battle Section

Figure 8. Example of grid paper mappings.
Thrash

for Percussion Ensemble

S.M Diaz
Trash Performance Instructions:

This piece is for a seven person percussion ensemble. The keg and steel pipe parts may be played by a single player if necessary. The piece is broken into sections ranging from 3 to 6 bars in length with each bar lasting approximately .5 seconds each or \( \text{= } \) 120. Players are to perform each musical gesture as notated according to its relative placement within each bar and section. Exact rhythmic placement is not necessary unless specified by solid note heads aligned vertically. In this case notes are to be played in unison.

At Box C titled “Drum Battle” performers are to improvise in a competitive display of musical technique and personal style with players passing off or interrupting each other’s solos according to the overlap of the black horizontal lines. This is meant to mimic the types of drum battles one would witness at a Heavy Metal concert.

At Box F the ensemble is to improvise freely and collectively in a manner that should be as fast, chaotic, and highly intense as possible. Once the conductor feels the group has reached a sufficient amount of play time, approximately 20 seconds to a minute, they are to walk of the stage while the ensemble continues to play. The conductor returns with a metal bat which they then hit the body of the metal keg with as hard as possible. After the keg hit the ensemble immediately stops the conductor stares angrily at the group and drops the bat in a boisterous or aggressive manner and walks off stage. This signals the end of the piece.

\( \text{= sustain indicated playing technique over the given duration.} \)

= Drum Sticks

= Soft to medium yarn mallet

= Brushes

R.H= Play using right hand

L.H= Play using left hand.

Instructions for each performer:

Cymbals: Each staff line represents a different cymbal size.

\( \text{= Indicates where to hit the cymbal, either near the crown or out near the rim.} \)

\( \text{= Arrows leading from one to the other indicate a gradual transition from one position to the other.} \)

Brake Drums: Brake drums should be of varying size aligned and played according to relative pitch from lowest to highest on the staff.

Metal Pipe: The steel pipe should be from six to nine inches in diameter and played with the opening of the pipe facing toward the audience.

Keg: The keg should be a 50 to 60 liter metal keg. The aluminum bat used at the end of the piece by the conductor to end the work should be a standard baseball bat.

= strike keg on the top rim of the instrument

= strike keg on the center of the body.

Snare Drum: The two lines of the snare drum staff designate alterations between the dominant and non-dominant hands of the performer with the top line designating the performers dominant hand.

Tom-toms: the five toms should be aligned in ascending relative pitch form lowest to highest in relationship to the staff lines.

Bass Drum: The bass drum should be positioned with the head of the drum facing up. The two lines of the bass drum staff designate alterations between the dominant and non-dominant hands of the performer with the top line designating the performers dominant hand.
Thrash
For Percussion Ensemble

Program note:

*Thrash for Percussion Ensemble* is written as an homage to my beginnings as a Heavy Metal guitarist and being a lifelong enthusiast of the genre and its respective subgenres. The title is taken from the subgenre of Metal that I grew up playing and emulating in my youth called “Thrash,” popularized by bands such as Metallica, Megadeth, Slayer, and Anthrax during the 1980’s. The genre is a fusion of what is known as the Second Wave of British Heavy Metal and Hardcore Punk, resulting in a musical style that is known for its fast, distorted and aggressive sound which I strive to capture in this piece.

Source inspiration and motivic material used in the piece came from the study of four of my favorite drummers’ styles from their respective subgenres. Dave Lombardo of Slayer, Nick Menza of Megadeth, of the Thrash subgenre, Vinnie Paul Darrell of Pantera of the Extreme or Groove Metal subgenre, and Joey Jordison of Sipknot of the NüMetal subgenre.

In *Thrash for Percussion Ensemble*, the drummer’s set has been deconstructed into its smaller family groups and given to an individual player in order to achieve a level of speed and complexity that no single drummer could achieve on their own. The notational system utilized in this piece works as a kind of tablature for the percussionists, focusing more on the aggressive physicality and dance like coordination that drummers exhibit during solos and less so on rhythmic precision. The addition of the metallic instruments of brake drums, steel pipe, and keg are deliberate puns as the piece was inspired by Heavy Metal. The keg is also a reference to the band Slipknot, known for using this instrument in their performances.
A  Aggressively

= .5"  

S.M. Diaz
(1985)
Chapter 4:

_Bacán for Vibraphone Solo and Fixed Media_

This piece was written in collaboration with percussionist Jonathan Rodriguez. _Bacán_ was commissioned by Rodriguez as part of his “Post Cards Project.”

Rodriguez commissioned different composers from UNM to write pieces for him using audio samples taken from different countries on his tour of South America. I was given audio samples from the country of Chile. Rodriguez provided me with several hours of raw uncut field recordings comprised of urban settings, jazz improvisations, sounds of nature, and a live match at a soccer stadium. The title of the work, _Bacán_, suggested by Rodriguez, is a slang word in Spanish which translates to “awesome” in English.

The core concept of the piece for me, knowing what the motivation of the project was for Rodriguez, was to mirror the “sound walk” exercise that the UNM composition studio does as part of our studio colloquium. The idea was to digitally construct my own sound walk of a country that I had never been to using the source material as a fixed media component. The vibraphone part is written to be representative of how a mind may organized ambient sound into musical structures, at least with regard to how my mind executes this task. The piece when listened to is meant to sound like a reactionary duet between the vibraphone and fixed media parts with the vibraphone mimicking or anticipating sonic events within the track. The selection

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6 The “Post Cards Project” was explained to me by Rodriguez as being a “sonic post card” from all the countries that he visited during his travels in South America during the summer of 2016.
of the vibraphone came from my liking of its mystical and ethereal sound, which I thought was a good metaphor for the organizing inner workings of the mind.

Another inspiration for the fixed media part was a drone that permeated many of the original samples given to me by Rodriguez. The source of this tone could have been a fault of the equipment, however, I interpreted it as the “voice of the city,” a unifying drone that gave continuity to all of the separate samples. Playing off of that idea the drone is persistent throughout the fixed media part traveling from left to right across the stereo space. This was an attempt to create a sense of forward motion in the track.

The narrative of the piece dictates the form, which is through-composed. Again, the vibraphone part is meant to be a representation of our unnamed subject’s mind organizing sounds into musical grammar as they traverse the soundscape of an unknown city in Chile. The track begins with the sounds of walking, birds, air, and other ambient sounds of nature. These sounds dominate the track as the unifying drone begins to sound. As the track progresses, our subject is met with more prominent sounds of an urban setting: traffic, people, the banging of cans, etc. Eventually, a sudden rainstorm can be heard and our subject is forced to find shelter in a sports bar where a live band is playing. The warped jazz band sounds are samples of improvisations Rodriguez recorded that were slowed down, Paul-stretched, and layered to make the “jazzy” sound almost unrecognizable. The sounds of people, conversations, and television broadcasts begin to take over until a climax is reached with the shouting of excited soccer fans. Our subject leaves the event and begins the walk home away from the sounds of

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7 Paul-stretching is a technique in digital audio production that slows down audio samples without lowering their pitch.
the city and back to the outskirts where the sounds of nature begin to dominate once more as the piece tapers off.

There were many experiments that Rodriguez and I conducted in order to manipulate and change the sound of the vibraphone, either by using a variety of unconventional beaters or manipulating the instrument itself. Wrapping rubber bands on the resonating tubes is one example. Several of the experiments, like the rubber bands resulted in undesirable or impractical ends and were abandoned but others were surprisingly effective at changing the timbre of the instrument like the raking the keys with a large hair comb or dropping ping pong balls on the keys from a close proximity. Some of the extended techniques used in the piece, such as bowing the keys of the vibraphone, have become relatively standard in contemporary composition for pieces that utilize the vibraphone, and the eerie, mystical sound that it produces, I felt, fit the tone of the piece perfectly. We experimented together using the various materials and techniques over a period of several months while I was also composing the fixed media track. The idea was to use materials found in an urban environment, such as the hair comb, as that is where the bulk of original source material was taken.

The notation used for the vibraphone part was developed to further explore my desire of having musical events happen in a less constrictive time frames, taking influences and expanding on ideas from my previous works like Thrash and Infinite Horizon. This was an attempt to give the performer even more improvisatory and interpretive freedom. I used two styles of pitch cells that could be interpreted in varying levels of freedom. Solid outlined cells instruct the performer to play the written pitches and playing techniques within their given range relative to where they are placed in the given time scale. Examples of this can be seen in
Figure 9. The dotted cells allow the player to perform the given pitches in any order within any octave, depending on their own preference and physical choreography. Figure 11 shows Rodríguez’s performance decisions. Notes within the dotted cells may also be omitted depending on the performers choreography and preference. The “tempo” for each section of the piece is designated by emotive and character driven language again meant to be left up to the interpretation of the performer, such as “Slow and Creepy” at rehearsal letter F.

Another element of the interpretive notation can be seen at rehearsal letter E, Figure 10. At this point in the audio track there is a recording of what sounds like a sudden rainstorm. The notation is meant to invoke visually for the performer the flowing of water, and the performer is instructed to play the vibraphone using hotrods (I originally wanted to use chop sticks or wire brushed, but the acoustical affect was much too quiet) to sound like rain drops. The harmonic and pitch relationships are of very little importance from a compositional standpoint, however, the original harmonic language of the piece was derived from the opening diads played by the ping pong balls. The performer is therefore instructed that all vertical diads must be played in unison.

Within the first year of the pieces completion it was been performed by Rodriguez on three separate occasions. The world premier was on April 18th 2017, again that semester at the regional Percussive Arts Society New Mexico Chapter held in Las Cruces NM, where we led a lecture on collaboration and contemporary music practices for percussion. The piece was also performed on Rodriguez graduate recital in the fall of 2017.
Figure 9. Examples of cell notation and extended technique notation.

Figure 10. “Rain Drops” notation.
Figure 11. Examples of Rodriguez’s pitch selection and phrasing decisions.
Bacán

For Vibraphone Solo and Fixed Media

S.M. Diaz
Performance Instructions
Notation Legend

= Play notes in written order using indicated technique and character.

= Play note collection in any order, any octave using indicated technique and character. Players may omit or repeat pitches.

-Lines connecting sections indicate a continuation of one figure to another over the given time frame.

-The event at 3’ 05” should be played with hotrods in a very quick sweeping gesture mimicking the sound of rain.

-The use of hair combs in areas indicated are to be raked across the keys quickly similar to a bow. The combs should have thick bristles no less than 1.5mm in diameter with equal distance between bristles for maximum resonance.

-Ping Pong balls are to be held one in each hand and dropped on indicated notes simultaneously approximately two to three inches above the keys and caught with the same hand in order to achieve maximum resonance, control, and desired effect.

-Diads must be played in unison but may be played in inversion.

○ ○ = Play with ping pong balls

= Rake with comb

= With bow

= Medium hard mallets

= Hard mallets

= Hotrods
Bacán
For Vibraphone Solo and Fixed Media.

Program Note

This piece was written in collaboration with Jonathan Rodriguez utilizing audio samples he collected from his travels to the country of Chile during the summer of 2016. The title Bacán is a slang term in Spanish which can be translated to mean “awesome”. After dozens of hours of listening and experiencing the sonic world of a country I have never visited, I began to notice unique sonic characteristics, familiar, but also very different from my own urban soundscape of Albuquerque. More specifically, a type of “drone” or what I would eventually refer to as the “voice of the city” appeared in virtually every recording. Whether it be a mechanical phenomenon in the recording equipment, or some amalgamation of human, mechanical and natural sounds, this “voice” became the focal point and inspiration for the piece. Thus, the piece is a celebration of the ubiquitous sound of urbanity and the unique character of sound that different cities possess.

As composers, we sometimes go on sound walks as part of our compositional process, a technique first introduced to me while studying with Chris Shultis. The active listening to the environment that we can sometimes take for granted or tune out can grant great levels of beauty, insight and artistic experiences. From the recordings, I constructed my own sound walk, which I invite the listener to partake in.

The narrative of the piece follows an unknown individual portrayed in the sounds of the vibraphone as they journey from the outskirts of an unknown city into its heart. The interaction between the vibraphone and the audio track is a kind of reactionary cat-and-mouse game where one is leading or reacting to the other as they transition from one section to the next. The work begins with a steady crescendo, with added layers of the urban landscape taking over the sounds of nature. Upon entering the heart of the city, our character is forced off the busy streets due to a sudden rain storm and into a crowded area. Is it a restaurant? A jazz bar? A soccer club? Is it merely a place where a large group of people collected to hold out the storm? Unknown music can be heard in the distance, but eventually becomes drowned out by the mass of humanity. Eventually the storm passes and our character can return on his journey home.
Bacán

S. M. Diaz (1985)

For Jonathan Rodríguez Grijalva

A
Slowly

B
Moderate tempo

* Fixed media cues need not align exactly with musical events, permitted within approximately 3" to 5".
M
8'05" Slowly dying out

8'40"

*may be played or repeated past ending of the track
Chapter 5:

*Maelstrom for Voice, Harp and Live Electronics*

This piece represents, what I consider, the furthest expression of the core concepts that shaped the focus of my work during my Master’s program: the collaborative process between artistic disciplines and the exploration of timbre through improvisation and electroacoustic technology. The primary conceptual focus behind *Maelstrom* was experimenting with the idea of distorting, layering, or compositing as many dimensions of a piece as possible. The title of the work, which I believe lends perfectly to this concept, is defined as a powerful whirlpool in the sea or river or a situation or state of confused movement or violent turmoil as will become apparent over the course of the piece’s description.

The piece was composed in collaboration with visual artist Jordyn Palma, a local artist I was put in contact with through a mutual colleague. Our collaboration came out of my desire to have a musical score that also functioned as a visual piece of art. Having a visual artist as a part of this project added perspective, insight, speed, and most importantly quality to the artwork that I could not have achieved on my own, as I lack any formal artistic training. My initial vision for the image I described to Palma was in line with the layering theme that I wanted to permeate the work. The first movement is a composite of a bird’s wing and an ocean wave, the second is a depiction of the female form with a mountain landscape, and the third is a sea shell superimposed with a whirlpool. There is a combination of geometric and organic art styles in the artwork. Observing this artistic style in Palma’s previous works is what originally drew me to work with her. From the onset, the visual components created by Palma were an exact
realization of my rough descriptions and amateur sketches I presented to her at the beginning of the project. This solidified my satisfaction with the piece knowing that I was working with an artist who was not only talented, but also understood the vision for the piece. Her personal perspective and suggested additions to the artwork introduced elements that I would have never thought of, thus making the piece a truly collective accomplishment: the piece is as much hers as mine.

Figure 12. Palma’s early sketches of movement 1.

There are a multitude of influences behind Maelstrom, none of which take any precedence over the others. Some are deeply buried in the piece, while others are much more palpable on the surface. There are hints of inspiration from John Cage’s Aria (1958) and Cathy Berberian’s Stripsody (1966). Maelstrom relies on the performers’ ability to interpret, improvise and interact with one another according to pre-established criteria outlined in the piece’s instructions. For example, the vocalist is instructed to interpret contour in the visual art as melodic motion, text size as dynamic, and color as timbre. The harpist is instructed to interpret
various sized dots, which are actually mappings of Ancient Greek constellations in their non-celestial alignment, as dynamics and articulations or as percussive techniques. “Constellation” collections can be interpreted as a shift in pedaling, mode or character.

There are several references to the Greek Classics and Greek Mythology in this piece. I have had a lifelong obsession with Greek Mythology and many of my works draw inspiration from it.\(^8\) The artwork for the second movement is a direct reference to Sandro Botticelli’s *The Birth of Venus*. As stated before, the harp part was created using mappings of the Ancient Greek sky. The manipulation of the voice done by the Max/MSP patch was driven by a desire to create what I imagined mythological Sirens sounded like.

The piece is set to the texts of Federico García Lorca (1898-1936) who I discovered in the summer of 2015. Lorca’s work had a profound impact on me as a person. I was captivated by his use of color and the melancholy tone of his language. This combined with his use of metaphor and pacing, for me, gave his poetry such depth that each successive reading felt fresh and introspective. The three poems selected for each movement were meant to be complimentary to the artwork. The tone of the piece stemmed from a desire to explore feelings of hollow loneliness and isolation. Feelings I felt were reflected perfectly in Lorca’s poetry.

The accompanying live electronic element, written in Max/MSP, manipulates the vocal part; harmonizing, manipulating, and layering samples of the voice as well as mixing it with samples of marine wildlife such as the songs of blue, humpback, and beluga whales, as well as orca, hippos, and alligators. The decision to use marine wildlife stemmed from the aforementioned desire to sonically recreate the songs of Sirens and is also a reference to yet

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\(^8\) See appendix I, “My Compositional Process.”
another inspiration behind the piece, the documentary film *Blackfish*⁹. The tragic narrative of this documentary also helped fuel the emotional tone I sought to convey in the work.

The live electronics performer also functions as conductor for the piece. Elements of the patch becoming active indicate to the rest of the ensemble a transition from one section or movement to the next. The patch is designed to work on four basic parameters of audio transformation which can be applied to either live input, live samples of the ensemble, and the prerecorded samples of the aquatic animals. Those parameters are: frequency shifting, (this raises or lowers the frequency of the audio at a gradual, localized level), transposition, (this raises or lowers the audio in half steps within two octaves, one above and one below the original sample), equalization and filtering (this allows for boosting of particular frequencies and to control of audio levels helping the ensemble and the patch to blend), and a panning echo delay effect (this adds an acoustical sense of distance and motion within a stereo space).

The patch also allows for looping the audio samples that can be manipulated by the same parameters over variable yet short time durations (between 5 and 30 seconds). The desired sonic effect is one of a distorted amalgamation of the voice and the animal samples. The patch also contains a built-in mixing board to aid in controlling the audio levels to accommodate the acoustical tendencies of different performance venues. The construction of the patch took

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⁹ I do not intend to convey any environmental activist or politically driven message. I empathized with the tragic story of the orca depicted in this documentary and wanted to reflect what I understood his emotional state to be through music.

place under the instruction of Dr. Peter Gilbert during my studies with him on Max/MSP
software. This can be seen in Figures 13 and 14.

One final component has yet to be incorporated into the work due to a lack of
accessible hardware. This element is one I had imagined for the pieces performance from the
beginning. My original vision for the performance of the piece was for it to function as a duet
between the vocalist and the harpist instead of as trio. Ideally the piece will have the Max/MSP
patch controlled by the vocalist using Midi controller gloves, or light and pressure sensitive
screens. The vocalist would interact with large projections of the score using their hands to
“paint” along with the score as they perform it, and the resulting motion would manipulate and
control the Max/MSP patch.
Figure 13 Max/MSP Patch

Figure 14. Max/MSP User interface.

Figure 15. Maelstrom Premier CFA Downtown 10/28/2017. Performers: Mary Brzezinski(Voice) Anne Eisfeller(Harp) and myself operating the Max/MSP patch.
Maelstrom
For Voice, Harp, and Live Electronics

S.M. Diaz
Performance instructions for Maelstrom:

Each movement of this piece shall have a predetermined time frame set by the ensemble in advance. The second movement should be the shortest of the three.

Players are allowed to repeat sections or gestures as they feel necessary. Sections of each movement should progress in a logical succession from one musical event to the next as determined by the ensemble.

Voice instructions:

The vocalist may be any female voice type. Register may be transposed to accommodate for range. Each line of text need not be sung in the same order as the poems, however may be if the performer wishes.

There are three parameters within the vocal part that are to be interpreted and improvised on for each movement:

1. Text size may be interpreted as dynamic and articulation or any combination thereof.

2. Color is to be interpreted as timbre. For example, though not limited to: blue as a calm straight tone, red as harsh raspy tone, white spoken, black Sprechstimme. The performer is encouraged to explore as many different vocal techniques as she can. This is to be determined by the performer in advance and should remain consistent within each movement, however, may be reinterpreted from one movement to the next.

3. Shape, contour line, etc. within each picture is to be interpreted as melodic motion.

At the end of movement II, the vocalist should sing in harmony with the harpist into the back of the harp.

The score for movement III can be read and rotated in any direction by the performer, and the performer is encouraged to execute this during performance as she sees fit.

Harp Instructions:

The black bars on the staff designate range of the instrument.

The harpist is to interpret the varying sizes of dots as dynamic, articulation, and relative melodic motion. Pedaling/mode is encouraged to be varied between constellations. Open dots may be interpreted as either harmonics or xylotones, which are executed by muting the string where it meets the soundboard of the harp with the finger and is then plucked.
Sections marked “interior plucking/tapping” are to be played by plucking the loops that attach strings to the interior of the harp’s body or tapping the body of the harp with fingernails or tips. Loops with the loudest audible sound should be selected by the performer as this will vary from harp to harp. The harpist may also scrape the tuning key across the pegs across the top of the harp.

The harp may be amplified via microphone in order to accommodate performance space.

**Max/MSP performer:**

The Max/MSP controller is both performer and conductor for the piece, and is responsible for establishing transitions from one musical event to the next as is coordinated among the ensemble in rehearsal.

There are several tiers of sonic manipulation at the disposal of the electronics performer outlined in the patch. The piece should have a linear trajectory of increasing amounts of electronic manipulation and distortion as the piece progresses from movement to movement with the climax happening in the third movement.

**Movement Outline:**

**Movement I:**

Beginning, no electronic element; voice and harp only. As the piece advances introduce panning echo delay module as well as frequency shifter. Voice buffer loop begins toward end of the movement and players begin to taper off and eventually drop out, first harpist, then vocalist, and finally the electronics are left and fade out. Movement I transition into movement II without stopping.

**Movement II:**

This is to be the shortest of the three movements. Harp solo at the beginning of the movement, voice enters with electronics simultaneously with Transphasor, Frequency Shifter and Echo Delay modules active after approximately 15 to 40 seconds. As the piece progresses, begin voice buffer module. Loops should be activated and deactivated sporadically. After the completion of the text by the vocalist, the AnimalGO should be triggered in order to indicate the transition to Movement III.

**Movement III:**

This movement is the climax of the piece. All electronics modules and audio files are to be active and manipulated throughout the entirety of the movement with an increase in volume, activity, and distortion. Piece ends abruptly with the halting of the patch and players in unison after reaching what they feel to be the climax.
Replica

Un pájaro tan solo
canta. 
El aire multiplica. 
Oímos por espejos.

La balada del agua del mar

El mar 
Sonríe a lo lejos. 
Dientes de espuma, 
labios de cielo.

¿Qué vendes, oh joven turbia, 
con los senos al aire?

Vendo, señor, el agua 
de los mares.

¿Qué llevas, oh negro joven, 
mezclado con tu sangre?

Llevo, señor, el agua 
de los mares.

¿Esas, lágrimas salobres 
de dónde vienen, madre?

Lloro, señor, el agua 
de los mares.

Corazón; y esta amargura 
seria, ¿de dónde nace?

Replica

Only a single bird 
is singing. 
The air is cloning it. 
We hear through mirrors.

Ballad of the Water of the Sea

The sea 
Smiles from far off. 
Teeth of foam, 
lips of sky.

What do you sell, oh, turbid maid, 
with your breasts to the wind?

I sell, sir, the water 
of the seas 
What do you carry, oh, black youth mixed with your blood?

I carry, sir, the water 
of the seas. 
These salt tears, 
mother, from where do they come?

I weep, sir, the water 
of the seas. 
Heart; and this grave 
bitterness, where was it born?
¡Amarga mucho el agua
de los mares!

El mar
sonríe a lo lejos.
Dientes de espuma,
labios de cielo.

Translation by Lloyd Mallan

Caracola

Me han traído una caracola.

Dentro le canta
un mar de mapa.
Mi corazón
se llena de agua,
con pececillos
de sombra y plata

Me han traído una caracola.

Translation by William Jay Smith.

Very bitter is the water
of the seas!

The sea
smiles from far off.
Teeth of foam,
lips of sky.

Snail

They have brought me a snail.

Inside it sings
a map-green ocean.
My heart
swells with water,
with small fish
of brown and silver.

They have brought me a snail.

Translation by William Jay Smith.
Maelstrom
For Voice Harp and Live Electronics

Program Note:

*Maelstrom* was written as a multidisciplinary collaboration between myself and visual artist Jordyn Palma. The primary theme of the piece is the concept of compositing, or layering of different elements to create a collective whole. The “composite” being that between the piece functioning as much as a musical score as well as a visual work of art. The lyrics to the piece are selected from the works of Spanish poet Federico García Lorca whose work I was captivated by following my discovery of him in the summer of 2015. I was highly impressed not only by the tone of his work, by his use of color and metaphor. For me, this gives even the shortest of his poems a depth which allows for a new emotional and cognitive experiences with each successive reading.

The performers are given a collection of instructions on how to interpret the images and texts, for example, color as timbre and linear contour as melodic motion. They are then encouraged to explore the resulting soundscape through improvisation. The sky motif performed by the harpist is a collection of Ancient Greek constellations while the paintings interpreted by the vocalist are composites of different images interlaced with geometric and organic art styles. Movement I is a composite of an ocean wave with a bird’s wing, Movement II is an allusion to the depiction of Venus by Ponchielli composited over a mountain landscape, and Movement III is a whirlpool composited with a seashell.

The overall tone of the piece is, for me, the depiction of feelings of melancholy, loneliness and depression. These can be reflected in some of the inspirations for the piece such as, the documentary film *Blackfish*, the poetry of Lorca, and my long-time obsession with Greek mythology and the tragic tales contained within those stories. The audio samples used by the accompanying live electronic elements are of different marine animals, predominantly whales and orca, alluding to one of the inspirations listed above.
Me han traído una coraza.

Mi corazón.

Dentro.

Con peces en el mar.

Pelo.
Chapter 6:

The Collaborative Process

The Observed Benefits of Cross-Disciplinary Artistic Collaboration

Working with other artists both within and outside the discipline of music inadvertently became one of the focal aspects of my work during my Master’s program. Over the course of my work between the years of 2015 and 2018 I noticed that collaborating with other artists had a positive impact on my work in regards to quality, speed, and satisfaction with the end product. It is much more gratifying for me as an artist to feel like I am working as part of a collective toward a goal rather than autocratically dictating every component of a piece. I’ve told friends and colleagues, “I am more comfortable feeling like a cog than a watchmaker,” when approaching the pieces that I work on. Having a collaborator outside of music allows for an exploration and addition of extra musical elements to a piece while allowing me to remain focused on the music and sound aspects of the work, as can be seen in Water Song for Fire and Maelstrom. I see this as beneficial to my work because it circumnavigates having to compromise the artistic vision of a work based on my own artistic limitations. Again, I will cite my collaboration with Jordyn Palma on Maelstrom. With her expertise in the visual arts, our combined work made a more complete and higher quality piece than I would have been able to achieve on my own within the same amount of time. Collaborating with performers allows me to take advantage of their personal expertise and knowledge of the instrument for which I am writing, resulting in notational clarity and an expansion on any ideas that I may have with
regard to performance techniques or acoustical effects as can be seen in *Infinite Horizon* and *Bacán*. This way of approaching my work is beneficial to my career aspirations of wanting to work in interactive entertainment (video games and virtual reality), new media (internet livestreaming and video on demand services) and multimedia productions where the role of music, and by extension the composer, is one part of the project, rather than the dominating force.

I noticed the improvement in the quality of my work through the collaborative process as a consequence of a self-observed personality trait that results in a need to keep myself and my work at a peak level, or rather, to strive for a level of excellence that I do not think I would have achieved working alone. While working with others I began to notice an undeniable need of not wanting to let my collaborators feel disappointed or as though their work and professional image were being degraded by poor, unrefined or mediocre work on my behalf. Having a collaborator also broke me out of stagnation and artistic indecision by forcing me adhere to deadlines more stringently and resulted in me being more motivated and focused creatively. All of this led to an overall increase in the speed and productivity of my work flow. Having an alternative perspective on each work was also beneficial at giving insight outside of my own biases, which usually led to an improvement in the quality of the project.

Having pieces that involve artists outside of the realm of music also served to expand my audience base. Networking with my collaborators through social media and cross promotional events helped draw a more diverse and larger group of people to the premiers of our pieces. In our current society (this is my own subjective opinion), audiences appear to be more receptive to performances with elements of spectacle, theatrics, and one time/unique or
unorthodox artistic experiences. By utilizing multimedia elements, I noticed a more positive reception to my music particularly with the general public who seem to be apprehensive or put off by the traditional concert hall environment. The most positive observed reception of my work took place in less formal venues such as the CFA Downtown space where the audience is allowed to interact with myself and the performers in a much more intimate context than a concert hall.

The Vetting Process and Committing to the Project:

The following are my own methods used when approaching a collaborative project with another artist. It should be acknowledged that even though I enjoy and see great benefits to working with other artists, I believe it is crucial that one exercises a certain level of caution with regard to whom they decide to work with before undertaking any project. I think it is important to state how imperative it is to the integrity of a project that all parties involved share compatibility and amicability on a personal and professional level in order for the collaborative process to operate in a healthy and productive manner. As such, vetting a potential collaborator, for me, is very important.

Conducting formal and informal meetings and observing a person’s behavior with regard to their temperament, agreeableness and assertiveness, all of which are beneficial but an excess of any could be a detrimental hindrance to the completion of the project, is a method I found to be very effective at gauging my desire to work with someone. I look for communication skills that involve an ability to express ideas in a clear, concise and non-
combative or domineering way, particularly when it comes to differences of opinion. I find this to be incredibly important to the collaborative process because open communication is paramount to overcoming obstacles that can, and do, arise during a piece’s production cycle. In general, having a positive, open-minded attitude, an inquisitive and playful mindset when it comes to experimenting with ideas, yet having a serious commitment to excellence are all desirable personality traits that I look for when approaching a possible collaborator. Asking for a portfolio of past works is an effective way of measuring stylistic versatility and capability. Getting references from mutual colleagues is helpful at assessing a person’s work ethic. Personally, I don’t put too much emphasis on credentials such as degrees with regard to a person’s artistic talent, however, having one does lead me to believe that the person is committed to their discipline and will approach the project in a professional manner.

Once I am confident that working with a potential collaborator will be a positive, productive, and enjoyable experience, there are a number of factors that I need to come to terms with before making the final commitment to the project. Admitting that the piece is going to associate my professional image with that of my collaborators’ for the life cycle of the piece is one of the most important. Recognizing that the project is going to be a commitment of many months or even years of work between myself and my collaborator is another important factor to consider. With this in mind, I ask myself if I am ready to make that level of a commitment to a project and to another person. As the project progresses, I look for hints of any sort of breakdown of communication between myself and my collaborator. This could be due to artistic or personal differences that may arise over our time working together. A breakdown of communication could have catastrophic results, diminishing the quality of the
piece or even leading to the termination of the project all together. I strive to avoid or remedy this before it seems to be a likely outcome. Open and honest communication is one of the metrics I use as to determine the success of a piece. I am constantly asking for my collaborators’ insights and opinions while expressing my own as I believe this keeps a partnership healthy and even.

After a vetting process has been completed and I am confident in the compatibility between myself and my collaborator the project begins with all aforementioned factors in mind. I have been fortunate in my endeavors that I have always been able to see a collaborative piece through to its completion and have been exceedingly satisfied with its final product. I have also maintained positive relationships with all of my collaborators past the completion of each project.\textsuperscript{10}

\textsuperscript{10} Appendix II has brief statements from several of my collaborators, giving their perspective on each respective project as well as biographical information.
Chapter 7:

**Exploration of Timbre Through Improvisation and Electroacoustic Technology**

My compositional mindset has long been dominated by an obsession with the manipulation of sound and timbre. The pieces that were the focus of my Master’s program revolved around exploring ways of mutating and manipulating sound through incorporating improvisation and utilizing technological means of manipulating sound. This is achieved live via analogue effects processors, digitally through Max/MSP programing, or in a fixed format using Digital Audio Workstations like Logic Pro X. Traditional parameters of musical excellence like rhythmic accuracy, technical virtuosity, pitch and harmonic relationships, though I acknowledge their significance to others, has been of little interest to me as a compositional foundation. For me, I have always viewed such parameters as spring boards for generating timbral material that I can sculpt and compose out from.

An important part of my compositional aesthetic is driven by a desire to explore ways approaching the discipline of creating music as an active process during performance rather than as a concrete replication of instructions that have been rehearsed for hours on end. My compositional goal with each work is to create a sonic landscape that has a unifying atmosphere or texture within which the performers can feel free to explore and engage with the material using their own artistic voices while still maintaining the integrity of the work in a way that makes it recognizable. As such, I have no qualms about having a performance of one of my pieces being dramatically different from another. I have found that being as specific as possible about the fundamental elements that give a piece its atmospheric integrity...
(instrumentation) while being deliberately ambiguous with regard to elements of the performance to which I am accepting of interpretive freedom, is where the balancing act and my role as the composer resides. The allowance of such interpretive freedom on part of the performer has been an enlightening glimpse into my own personality and compositional aesthetic, as I have learned what aspects of my role as a composer actually hold value for me. I have discovered aspects of the discipline of composition that are of little to no interest to me, pitch and harmony, which in the past seemed to hinder my work as I was forcing myself to focus on those elements too heavily, due to a belief that they were the measure of compositional “greatness” or “success”.

The allure of having unique artistic experiences with each successive performance of a work that cannot be replicated also drives my work. What motivates me to attend a live performance over consuming a piece of music through the convenience of a recorded format is exactly this. As stated previously, I have observed in myself, and in general audiences, an apprehension or discomfort with the traditional concert hall environment, and so, I seek to create performance opportunities that help break away from this in an attempt to reach wider audiences, and also appeal to my own concert going tastes. Allowing for an improvisatory environment within my pieces helps achieve this.

**Improvisation During Composition**

A lesson that has remained with me throughout my time as a composer was taken from my first composition professor and mentor Dr. William (Bill) Wood. Bill told me once that,
“composing is just improvising in slow motion.” Over the years I have incorporated my own interpretation of this into my compositional process.

Generating material from which to compose out from comes from a variety of methods that I have employed and developed over the years. Many of these methods have a playful, game-like, and improvisatory spirit behind them. One example is the grid mapping method I used for Thrash. The notation system that I ended up using for the piece originated as a thought experiment I turned into a game to see if I could map out the drummers’ playing like a form of tablature instead of using traditional notation. For pitch material, I’ve taken names, phrases, news headlines, famous quotes, etc., and convert them into pitches through a variety of methods. For example, I could take a quote from a newspaper article, count the distance between letters, select only the vowels, and convert them into pitch class. I have also used transparencies to map out where periods are in paragraphs and overlay that onto staff paper. In the case of Infinite Horizon, I used the “pitches” that were present in the multiphonics as material to create the bird calls. Unfortunately, retracing my motivations for pitch and harmonic selections can be difficult as I’ll usually forget or discard these early generative materials once the actual composing of the piece has begun.

Influence of “The Chuppers”

My time playing with the UNM Electric Ensemble, also known as “The Chuppers”, and while under the tutelage and mentorship of the group’s founder, Manny Rettinger, the recording and sound engineer for the Music Department, had a great impact on my
compositional decisions immensely due to the improvisatory performance atmosphere and autonomous nature of the instruments utilized by the group. Working with Rettinger and the Chuppers helped further my knowledge of electroacoustic manipulation through analogue technology, such as loop pedals, sample processors, effects pedals, etc... The ensemble also served to reinvigorate my interest in free form improvisation, which was one of the main draws I had toward performing music in my youth. The spirit of “The Chuppers” is one I have tried to capture and recreate through my work.

The ability to comprehend, react, and blend musically within the ensemble during performance is what determines the success of a “Chupper Jam”. Though this may sound similar to more traditional ensembles, the integration of the analogue technology combined with the unconventional playing methodology of the instruments results in an unpredictable, at times completely random, performance environment where preconceptions or control of sonic outcome are nearly impossible. This performance atmosphere is something one learns to embrace, and in my case, enjoy, while performing with the group. Performance practice in The Chuppers focuses on music production from a perspective that embraces spontaneity, surprise, and a playful exploration of sound rather than traditional concepts of musical excellence that rely on controlling all parameters of sound production through technical control and virtuosity. As a performer, you learn to access a fundamental perspective of your own intuitive musical language, performance preferences, and aesthetic.\textsuperscript{11} I have attempted to recreate this kind of

performance atmosphere in my works through my compositional decision to incorporate elements of improvisation that rely on a performer's intuitive decision making during performance.

Improvising in Performance:

The improvisatory elements incorporated into my scores presented herein stem from an attempt to capture some of the improvisatory language that I experienced from The Choppers. In many of my scores, I have laid out graphics and fairly open-ended performance instructions that as previously mentioned are geared toward allowing performers to explore the sonic atmosphere. This can be seen in pieces like *Thrash*, where the ensemble is given very loose time frames and character driven descriptors for performance style as seen in the Drum Battle or Free Improvisation sections. *Maelstrom* deliberately has an undefined performance length, with the only stipulation being that the second movement is the shortest of the three in duration. The performance of *Maelstrom*, with regard to melody, timbre, dynamic, articulation, and so on (though stipulated within the instructions as to which aspects of the work that they are attributed) are left up to the interpretation of the performer based on how they engage with the artwork. In *Bacán*, the raindrops notation is meant to invoke in the performer the sound and movement of water, which they are instructed to replicate. What remains undefined is the exact rhythmic execution of the gesture. Also, in *Bacán*, the performer is allowed to make their own rhythmic and melodic choices within each cell, giving each performance the potential of being dramatically different depending on each performer’s personal decisions based on preference or choreography. This gives each performance an element of spontaneity and uniqueness dependent on each performer’s personal interpretation.
Asking the performer to improvise in the ways that I have laid out also invites them to participate in collaborative process that I mentioned in the previous chapter. I see this as an extension of trust to the performer with regard to their technique, personal knowledge, experience, and artistic self. I am confident that I have composed a work that establishes a sonic atmosphere that makes the piece recognizable and attributable to me as a composer, but also leaves the work open enough for performers and audience members free to explore and experience it in new and unexpected ways with each successive performance. There is the potential for mockery of the work, or perhaps “bad” performances of a piece due to the lack of the vetting process I previously laid out with regard to collaboration, however, I’ve come to accept this as potential risk that I can live with. After all, I can’t completely control who does or doesn’t play my pieces, as doing so would be impractical and dramatically limit having the pieces performed.

I like to think of my scores as somewhat pedagogical in nature, in that they encourage a performer to discover and explore their own intuitive musical language through improvisation. The interpretive and improvisatory freedom that I encourage, allows them to experiment with and push the boundaries of their own technique and artistic expression in ways that may not be available to them in other performance practices, even those that have a history of improvisation, such as jazz. How loud is “as loud as possible”, or how fast is “as fast as possible”? These questions I leave up for the performer to answer for themselves. My scores also give general enough directions for performers who may feel uncomfortable attributing musical properties based on their own subjective interpretation of the graphics.
**Outlook:**

Over the course of my Master’s studies I discovered much about my artistic voice and what I view to be the role of myself as a composer is in the 21st century. As my pieces progressed I started to notice that the focus of my current artistic vision was set on creating multimedia artistic environments that also involved music. My role as a composer was not to be an authoritarian voice that controlled every aspect of a piece of music, but instead a collector and enabler of artistic of ideas and imaginations to create communal artistic experiences between myself, my collaborators, performers, the audience. As I venture forth through my career, I see myself utilizing this aesthetic to explore even more ways to create multidisciplinary artistic experiences that involve my work with sound and music.
Appendix I

My Compositional Process:

I created this document during the first year of my Master’s studies in an attempt to consolidate how and why I write music. It also served to evaluate where and when I was getting stuck on a project and aided me in trying to understand how to get out of creative stagnation or frustration. This is not a strict step by step process that I follow for each piece, rather, it is a rough outline or generalization of how I have observed my own work flow. Several of the steps can happen alongside one another or are skipped entirely depending on the piece.

Steps 1 – 3 Pre and Early Composition:

1. Inspiration:

Things that inspire or entice my creative mind:

- Nature- being enveloped in the natural world, the woods, mountains, being near water, etc.
- Cosmology- star gazing visiting observatories or viewing photos of celestial objects, galaxies, stars, planets, comets, moons, etc.
- Mythology- I am particularly fascinated with Greek and Norse mythology.
- Sounds of man and nature- animals, weather, cityscapes, machines, electronics, etc.
- Science and technology- acoustical phenomena, how the brain interprets them, and the technological means of producing sound whether it be analog or digital.
- Dreams- I keep a dream journal and sometimes I will find inspiration in them.
- Listening- the music I listen to, either for pleasure or study, somehow always ends up directing me on a path of composition or helps expand my ideas.

2. Meditation and Isolation:

After my initial inspiration, I meditate on what am I hearing or envisioning for the piece in my head. My music is strongly focused on sound and timbre. I search out ways of either creating new sounds, replicating or exaggerating ones I have been intrigued by through experimentation or research. The vast majority of my early compositional process takes place entirely in my head. This can take anywhere from weeks to several months. I ask myself, “what am I feeling and how much do I need to reflect that in this piece?” Sometimes I make music as a release for my emotions, and other times it serves as a distraction from them. This is dependent on what is going on in my life at the time.

I meditate daily through breathing exercises, focusing techniques and physical training meant to clear my thoughts and channel my concentration and creative energy. Being isolated and surrounded by the natural world also helps with this. I will also take long walks in order to
give me a sense of pacing and length for a piece. I begin running the piece in my head as I walk making note of the time it takes me to travel from place to place. I will stop and take voice recordings or write down in a sketch book any ideas that I think may be important along the way. I must be alone for all this! Any distraction can break me out of my concentration and consequently I’ll lose my chain of thought, therefore, I prefer being completely isolated from other people during my early compositional process.

3. First Sketch/Compositional Improvisation:

“Composing is just improvising in slow motion...” Dr. William “Bill” Wood. This is a lesson I’ve kept close to heart from my first composition teacher and have always tried to incorporate into my work as a composer.

Once I have a piece comfortably set in my mind I begin the initial sketch using contour lines, undefined symbols, written prose, and anything else that my come into my thought process as I run the piece through my head. I will repeat this process several times until I begin to see a general shape of the piece. This step can take a day or several weeks. Generating and developing material- The way I generate pitch and harmonic material is little more than a way of giving myself a starting point to compose out from. The notes I select rarely have any significant meaning to the work as I am more interested in the timbral color of where the notes reside on the instruments I select to write for. I generate raw material from a multitude of means, usually from a spontaneous or game like attitude. One such method is converting names, sentences, or quotes into pitch class and then map them onto my original sketches.

Steps 4 – 7 Organization:

4. Instrumentation/Orchestration:

After I decide on what instruments I can use to create my sound world I will have discussions with instrumentalists in order to gain their insight as to what the instrument is capable of that I may have overlooked.

5. Score Study:

I seek out works or literature that help reflect the sound world I am interested in and the instruments I have decided to compose for. I will copy scores by hand or in Sibelius to gain greater insight into the minds of what other composers have done.
6. Building the box, Form:

At this point in the piece I begin to strongly consider form, rhythm, and time. I am very interested in simple mathematical relationships, such as: The Golden Mean, Fibonacci’s sequence, palindromes, logarithmic patterns, fractal geometry, etc., and will seek to weave them into the piece at some level. I also begin experimenting with notation at this step.

7. Filling the box:

This step is where I take my initial sketches, instrumentation, and my formal structure and begin to build an actual notated version of the piece. This step happens very quickly, sometimes only taking an afternoon.

8. First draft:

This is when the score usually goes to discussion with professors in lesson, with colleagues, and with performers for insight and criticism. Any confusing or concerning aspects of the notation are addressed and corrected or clarified if needed.

Steps 9 – 12 Final Product:

9. Rehearsal.

It is at this point, though the question is always present throughout the compositional process, that I like to ask myself, “how can I make this interesting? Will this piece be as enthralling to play as it is to see performed live? Are there things that I can add to or take away that would help?” It is only when hearing my work played at me as an observer and holding discussion with my performers that I can gain this insight.

10. Integrating Improvisation:

I will begin to consider what improvisatory element to I want to add to the score and exactly how much freedom to give to the performer. (This step is does not always apply unless I feel as though it would help the piece) I began playing music as heavy metal guitarist and in jam bands, and so, improvisation is a strong part of my musical language. Sometimes I will add in sections where a performer can improvise or break away from the notated structure of the piece and add their own personal flare, expression, or interpretation of what they think the music is saying.

11. Revision, Revision, Revision!

At this point I clean up the score and keep revisiting steps 8 and 9 until the piece is as clear and concise as possible.
12. Final Draft and performance! Complete (but not really...)

Even after a piece premier, there are always tweaks that can be made to help improve the quality of a performance, whether it be technical or notational.
Appendix II
Statements from My Collaborators

Statement from Erin Fussell


In Spring 2015, when I was an MFA visual art graduate student at UNM, I went with my mentor Andrea Polli and her Sound Art class to meet Manny Rettinger in his studio in the Music Department. His work building unique, sculptural, electric instruments engaged me and I asked to participate in his weekly Electric Ensemble experimental music group. He let me join, so on Monday nights for 2 hours, I would meet with him and a few other people in the studio to play the instruments and get into the zone. I met Steven.

I had built a Rubens’ Tube, a classic physics experimental way to visualize sound waves using fire. Originally, the sound for the piece was a work that I made using clips from old cassette recordings that I created as a kid. During my very first studio review in Fall 2014, the tube technically worked but badly. The flames were barely visible and the audio didn’t have enough variation or volume. I realized that I had a lot of work to do so once I was in the Electric Ensemble, I asked Manny about what I could do and Steven got involved in the conversation, so that’s how we started to work on it. As a professor, Manny had enough on his plate so it made sense for Steven and me, as two MFA students to work on it and we’d become friends in ensemble.

I asked Steven if he’d make a composition specifically for the tube using all water recordings that had variation in frequencies to get the fire really moving. He agreed and we had a couple listening sessions before finalizing the piece. Once we had the sound piece, we could do some tests with the sculpture that turned out to be several different times. Both of us were busy, but we made it work and tested by running a long extension cord out my back door, over the fence and in the adjacent parking lot to his amplifier. We had to meet multiple times for so much troubleshooting! We learned that the propane tanks I had were too small, so we borrowed a giant one from his cousin. The flames melted my first connecting tubes so we bought copper. Lots of troubleshooting things like that until it worked and we were both super stoked. I feel like I needed the extra energy of someone else to keep me plugging away with that one. I initially was really frustrated with the multiple technical difficulties. But it got better with Steven involved. He was relaxed and generous with the issues and stayed game the whole time. Plus, the work really needed two people to make it happen in it’s best form. I turned the video
documentation into a video art work and then later, we held a live performance with open flames. Pretty rad. I’m very happy with Water Song for Fire.

Statement from Jordyn Palma

Working on Maelstrom has furthered my belief that art has the potential for great success when it exists in multiple mediums. Maelstrom is a piece that contains not only musically composed elements but those in performance art and visual media. I think by doing so, it has the potential to engage a wider audience and rids of the notion of exclusivity that comes with approaching art from one perspective. I don't believe that art should be one sided but rather be open to interpretation by all. In working with Steven, I have learned more about music and have been able to creatively express my understanding of it through visual media. The collaborative process is much more interesting and much more engaging for me as an artist. Maelstrom is successful because it is so reliant upon the collaborative process and has room to grow to something greater because of it.”

Statement from Johnathan Rodriguez:

The audio content from Bacán comes from the field recordings of a larger project entitled Postcards: The Postcards Project is an ongoing compilation of field recordings and research of countries I have visited (Cuba, Colombia, Peru, Bolivia, Chile, Argentina, and Mexico) and the commissioning of new percussion music based on those sources and thus, adding to the library of percussion performance literature while offering a global perspective of each respective country. The majority of Chile's audio comes from various settings, mostly urban, in three different cities: San Pedro de Atacama (which lies on the border with Bolivia), Santiago, and the Bohemian city of Valparaiso (many of the recordings in Valparaiso were taken in Pablo Neruda’s home).

It is common when one visits a foreign country, he or she brings back a souvenir of sort; a magnet, pictures, postcards, etc. But one tends to not think of the sonic landscape and how it may be particular to a certain area. So instead of the traditional souvenir I brought back home with me 100+ hours of audio from said countries over the course of two months in the summer of 2016.

My goal aside from the aforementioned was to collaborate with the student composers of UNM. One of them being Steven Diaz. The process was very organic and Steven was very open to the idea of the project. Initially, my concern was there was too much audio for the country of Chile (20+) for Steven to sift through, and thus, deterring him away from the commission. Steven had no reservations in agreeing to the commission. Through the process I made a conscious effort to not meddle in Steven’s creative process but was open to sharing his latest advancements anyway.

The process was very smooth and I did not run into any problems with Steve along the way. I received the first draft about a month since I passed along the audio to Steve. I was very happy to discover the first draft was almost perfect. Aside from minor logistical challenges such as what implement to use when and where, i.e. mallet, bow, combs, brushes, ping pong balls, etc., the piece was just about done.
It should also be noted that Steven allowed me the liberty to work what I felt was logistically and sonically appropriate when choosing the implements. *Bacán* is one of my favorite pieces to perform and has challenged me to grow as percussionist and performer. Working with Steven has been a real joy and has brought what I feel is some of my best work as performer. I plan on keeping *Bacán* in my canon of repertoire for a long time to come.
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