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CREATIVE INSIGHTS ON THE COMMISSIONING, ANALYSIS, AND PERFORMANCE OF FOUR NEW WORKS FOR SAXOPHONE

by

Andrew Joseph Hutchens

Bachelor of Music Western Carolina University, 2017

Master of Music University of South Carolina, 2019

Submitted in Partial Fulfillment of the Requirements

For the Degree of Degree of Doctor of Musical Arts in

Performance

School of Music

University of South Carolina

2023

Accepted by:

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Michael Harley, Committee Member

Greg Stuart, Committee Member

Ann Vail, Dean of the Graduate School

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DEDICATION

This document is dedicated to all the friends and family who have tirelessly supported me throughout this journey. To my wife, Katlyn, without whom this degree would never have been possible. To my parents, Joe and Cheryl, for their continued love and support of my dreams.

ACKNOWLEDGEMENTS

To Dr. Clifford Leaman. Thank you for believing in me and never settling for anything less than my absolute best. Your guidance over the past six years has been invaluable. Words cannot express the impact you have had on my personal, musical, and professional life. I look forward to what the future may hold.

To Dr. Ian Jeffress. You changed my entire perspective on the saxophone, challenged me to better myself in all ways, and inspired my deep love for the saxophone through your teaching and performance. You were the first person that introduced me to the commissioning process, helping me through my first commission in 2017. My gratitude cannot be understated.

To my committee, Dr. Michael Harley, Mr. Hassan Anderson, and Dr. Greg Stuart. Thank you for the time, edits, emails, and most of all flexibility that helped this project come to fruition.

To the composers, Baljinder Sekhon, Russell Wharton, Michael Laurello, and Stephen Karukas. You all are amazing! Thank you for being some of the best collaborators a performer could ask for. Without your dedication to this project, flexibility, willingness to interview, and guidance through each piece this project would never have been possible. I cannot express my endless thanks and appreciation for you and your work. I look forward to collaborating again in the future.

To Daniel Myers. You are truly a fantastic collaborator and friend. I have learned

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so much from you throughout the years and you continue to challenge me to "get good" each time we play. Without you two of the pieces included in this document would never come to be. I am lucky to call you my duo partner, and friend. I look forward to all the future journeys and collaborations we undertake together.

To my editor, Laura Schlater. Thank you so much for the tireless number of edits, suggestions, and time you committed to this project.

To Natalie Jefferson. Without your help transcribing interviews this project would never have become a reality. I cannot express my gratitude for the time and dedication you showed to this project.

ABSTRACT

This document explores, in detail, four works for saxophone, which the author commissioned. These pieces were performed on the author's degree recitals prior to the writing of this document. The selected works are *At the Seams* by Baljinder Singh Sekhon II, *Intrepid* by Russell Wharton, *Unity Synonym* by Michael Laurello, and *Third Rail / Revelation* by Stephen Karukas. This document focuses on the commissioning process, musical performance, and theoretical aspects of these four pieces. Interviews were conducted virtually via Zoom and then transcribed for inclusion in this document. There have been no previous studies that have explored these four works. The author intends this document to bring light to these substantial works and composers and that the reader will be inspired to explore these works more deeply. As additional resources, the author will provide sample commissioning contract templates within this document's appendences.

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CHAPTER 1

INTRODUCTION

Background

This paper discusses a project in which the author commissioned four new works for saxophone and various instrumentations, including solo and electronics, duos, and a quartet. Composers received no specific guidelines for their composition other than the piece should function independently and not within the construct of a unified theme. This project serves as documentation of this commissioning process as well as a resource for saxophonists who wish to study these pieces or commission new works. Each chapter covers a different work, providing details about the inner workings of its creation and issues surrounding appropriate performance practice. Interviews with the composers include discussions of the conception of the pieces, the compositional process, performance suggestions, and recordings of the works (see Appendices A through D). Chapters 3 through 6 present each piece in the project, including the title, composer, date of composition, duration, instrumentation, techniques used, and publication information. Program notes for each piece and a brief biography of each composer are also included.

Statement of Purpose

The purpose of this document is to create a performance guide for each of the four pieces. Since all the works were written within the past five years and commissioned by the author, no published analyses or research exist. The author intends this dissertation to

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bring light to these substantial works and composers, and that the reader will be inspired to explore these works more deeply.

Literature Review

The performance suggestions in this dissertation are based on the author's experience performing the pieces, premiering each of them in degree recitals at the University of South Carolina (see Appendix G). There are several previously published studies similar to this one that incorporate both commissions and recordings of a variety of works. Most recently, Shawna Pennock and Christopher Charbonneau completed similar studies in which they commissioned new works focusing on extended techniques and pre-college repertoire, respectively.^{1,2} Although these projects had the same foundational basis, there have been no published studies on the selected repertoire.

The author collected a variety of primary and secondary sources from various pedagogical outlooks that pertain to this project. The primary sources were scores of the selected pieces and composers' dialogue. Interviews with composers Baljinder Singh Sekhon II, Russell Wharton, Michael Laurello, and Stephen Karukas were critical to create an accurate performance guide for each of these works. Interviews were conducted virtually via Zoom and then transcribed for inclusion in this document.

Chapter 2 references the commissioning process. In a treatise on performer and composer collaborations for the modern violinist, Sophia Han detailed her collaborations with composers while completing a commissioning project. Han discussed considerations

¹ Shawna Pennock. A Commissioning and Recording Project of New Works for Saxophone Focused on Extended Techniques. 2018.

² Charbonneau. A Recording and Commissioning Project Aimed at Developing New Repertoire for Pre-College and Early-College Saxophonists Focused on the Early Applications of Extended Techniques. (ProQuest Dissertations Publishing, 2015)

for commissions, the collaborative process, and the final products and findings.² In her dissertation, Connie Frigo presented a guide on commissioning works for saxophone. This document includes a historical guide and the categories of commissions and funding opportunities available to performers and composers.³ These documents provide structure for this document's second chapter, which includes first-person accounts of the composer/performer collaborative process for each selected work. Sample commissioning contract templates are provided in Appendix F.

In chapters 3-6 the author used three separate models to create a performance guide. Justin Robinson's 2020 dissertation, *A Trumpet Player's Performance Guide of Three Selected Works for Trumpet, Cello, and Piano* focused on music performed at a recital in a doctoral program. Robinson provided vital background and pedagogical information as well as performance challenges incurred while preparing the works.⁴

The second document studied was Mark Lynn's 2010 dissertation, *The Avatar by Steve Rouse: A Performance Practice Guide*. Lynn divided the dissertation into chapters based on the movements of the work, providing programmatic, pedagogical, and recording suggestions and considerations. Lynn's in-depth relationship with the performance and recording of the work was influential to the author.⁵

The third document referenced was Shawna Pennock's 2018 dissertation, *A Commissioning and Recording Project of New Works for Saxophone Focused on Extended Techniques.* Pennock commissioned 10 new works for saxophones that utilized

 ² Sophia Han. Performer and Composer Collaborations: Commissioning Unaccompanied Repertoire for the Modern Violinist. 2017
 ³ Connie Marie Frigo. Commissioning Works for Saxophone: A History and Guide for Performers. ProQuest Dissertations Publishing, 2005)

⁴ Justin Robinson. A Trumpet Player's Performance Guide of Three Selected Works for Trumpet, Cello, and Piano. (ProQuest Dissertations Publishing, 2020)

⁵ Lynn. "The Avatar" by Steve Rouse: A performance practice guide. (ProQuest Dissertations Publishing, 2010)

a variety of instrumentations, with each piece utilizing a specific extended technique. Pennock provided a brief analysis of each piece, a description of each extended technique, performance suggestions, and difficulty charts. Although Pennock did not intend the dissertation as a performance guide, the connection with the commissioning process and pedagogical structure inspired a similar structure in this document.

CHAPTER 2

THE COMMISSIONING PROCESS

Making the Connection

When beginning a commissioning project, one must first find a compatible composer. Organizations such as New Music USA, American Composers Forum, American Composers Alliance, National Association of Composers USC, Society of Composers, Inc, the International Society for Contemporary Music, and the Society for Electro-Acoustical Music in the United States provide excellent resources for musicians who seek a productive collaborative experience and are searching for potential composers to commission. Additional Resources are listed in the bibliography.

The American Composers Forum (ACF) breaks down the "anatomy of a commission" into five distinct stages. 1. "The Developmental Stage" occurs through early non-binding discussions between composers and performers. These discussions can range anywhere from creation to financing of a new work. 2. "The Deal Memo/Contract Stage" occurs when agreeing upon material for a project, potentially obtaining funding from an external source, independently placing a down payment, or collecting money from a consortium. The contract is signed at this point. 3. "The Preparation and Delivery Stage" occurs throughout the composer's creation of the work through delivery of the score. 4. "The Premiere Stage" is when the work is given its initial rehearsals and public performances. 5. "The Post-Premiere Stage" occurs after the world premiere of the piece when subsequent performances and initial recordings happen. ACF provides performers

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with a discussion guide prepared by the Solotoff Law group in conjunction with a cohort of composers, publishers, and industry leaders to better facilitate initial conversations with composers. Additionally, they offer sample contract templates, written articles and video resources providing documentation from successful and unsuccessful collaborative experiences.⁶

All the aforementioned organizations offer resources and support for composers and performers. Many of these organizations, such as New Music USA, offer funding opportunities for new projects. New Music USA provides a database of all the people and projects funded. New Music USA offers numerous other resources and funding opportunities, such as their online magazine, New Music Box, and grant funding, such as the New Music Creator Fund and the Small Grant Fund.⁷ Additionally, performers can consult databases such as the Black Music History Library, Music by Black Composers, Institute for Composer Diversity, She is the Music, and the Living Composers Project. Although databases provide a starting point for performers, one should listen to a wide array of music regularly, attending a wide variety of concerts, festivals, and venues to stay up-to-date with current repertoire, composers, and trends. Building a network of collaborators will also aid performers in this regard. Performers should seek input from fellow collaborators, peers, students, senior composers, and other avid listeners to create further connections within the listening and commissioning experience. One should select a composer whose musical catalog generates a connection with the listener. It is not necessarily advisable to select a composer based on a connection with just one specific

⁶ Ari Solotoff et al. "Anatomy of a Commission: Discussion Guide and Sample Deal Momo for the Commission of a New Concert Work for Large Ensemble." American Composers Forum. Last Revised June 2023

⁷ "People and Projects We've Funded." New Music USA. Accessed August 24, 2023

work. Entering a collaboration based of the style of a single piece will can potentially to disappointment on one or both sides of the composer/performer relationship.⁸

Performers should have a plan when contacting a composer. It is appropriate to be open and flexible with the composers' desires; however, having a well-developed plan for instrumentation, budget, and timeline can help the commission progress more successfully. Following initial contact, the commissioner should set a meeting via telephone or video chat, which provides a more personal interaction where performers and composers can openly discuss key concepts of the collaboration. This is also a good time for both parties to determine if the collaboration will be a good fit. For those performers interested in commissioning new music, *Meet the Composers Commissioning Music: A Basic Guide* is an excellent resource showing what one should expect when commissioning music, including commissioning fees and contract terms.⁹

Funding

Before entering into an agreement for a performer should have a general idea of the project budget, as this information will help the performer determine the scope of the project, including selecting composers and planning for funding. Composers typically base their fees on instrumentation, length of work, timeline, method of delivery, notoriety, and various other factors.¹⁰ Meet the Composer's commissioning guide provides estimated costs for commissioning music. For example, the estimate for a solo or duo under 10 minutes is \$2,000 to \$4,500, with 50% due at the contract signing and 50% due upon delivery of the final score.¹¹ New Music Box (New Music USA's Online

⁸ Amrine, Kate. "How to Commission New Works and Where to Find New Pieces." New Musc Box, 2022.

⁹ Meet The Composer Commissioning Music: A Basic Guide." New York: Meet the Composer Inc., 2009.

¹⁰ Amrine, Kate. "How to Commission New Works and Where to Find New Pieces." New Musc Box, 2022.

¹¹ "Meet The Composer Commissioning Music: A Basic Guide." New York: Meet the Composer Inc., 2009.

Magazine) provides performers with an online commissioning fee calculator (https://newmusicusa.org/nmbx/commissioning-fees-calculator/). This tool provides a rough estimate of commissioning fees based off style of music, instrumentation, and length of piece and establishes a clear baseline when setting up a budget for commissions. "Generally established" composers will often charge between \$500-\$1,000 per minute or more. Composers with established reputations will tend to charge more substantial fees.¹² Student composers, or those up-and-coming, who are looking to have their work performed often charge little to no commissioning fees in return for performers providing performances and recordings of their work. Performers interested in commissioning for the first time, or on a very minimal budget should consider this method initially to build a network of collaborators, recordings, and commissioning experience.¹³

Commissions are traditionally funded in one of three ways: 1. independently, 2. with consortiums, or 3. with grants. This study does not include a discussion of grants, as they are more applicable for larger-scale projects and not used for any of the pieces included in this document. Independent funding occurs when the commissioner or one independent party funds the commissioning fee. Depending on the scope of the work and the commissioner's financial resources, independent funding can be a good method to ensure the completion of the work due to the unpredictability of consortiums reaching the total fee.

¹² Commission Fees Calculator." New Music Box, April 12, 2016. https://newmusicusa.org/nmbx/commissioning-fees-calculator

¹³ Amrine, Kate. "How to Commission New Works and Where to Find New Pieces." New Musc Box, 2022.

Funding through a consortium is another option for works that would be too costly to pay for independently. A commissioning consortium traditionally occurs when institutions, ensembles, and private individuals (typically, the artists who will be performing the piece) combine resources to help a composer reach the total project fee. A consortium allows performers to commission large-scale works that they cannot afford to fund independently; thus, consortium members support the work for a minimal fee and receive access to the piece upon its completion along, often followed by a period of exclusivity where only consortium members can perform the piece. In turn, the organizer acts as the "lead commissioner" or "consortium head." This person often negotiates rights unavailable to the general membership, such as the world premiere and initial recording. The lead commissioner is responsible for organizing membership to account for the total commissioning fee.¹⁴ If the consortium has a funding surplus, the author's practice is to donate the surplus to a new music non-profit, such as New Music USA or the Southern Exposure New Music Series or allow the composer to retain it. Plans for surplus funds should be a part of the commissioning contract and agreed upon by both parties. There is, however, a potential negative aspect to consortium funding: If the total fee is unmet, the commissioner must cover the difference independently or dissolve the consortium entirely; this condition, too, should be written into the contract.

Consortiums are not appropriate for all projects. A commissioner(s) must understand the market for a specific composer and instrumentation before creating a consortium. In most cases, the lead commissioner is responsible for coordinating the

¹⁴ Connie Marie Frigo. Commissioning Works for Saxophone: A History and Guide for Performers. ProQuest Dissertations Publishing, 2005)

transfer of funds to the composer. Unlike the 50/50 split of individually funded works, consortium funding typically occurs at the signing of the contract. The author believes that when undertaking a consortium, the consortium head should never directly handle funds from consortium members, instead directing all funds to the composer to prevent discrepancies or future allegations.

Developing a Contract

Once a composer and performer have come to terms on the project's scope, they should collectively create a commissioning contract. Contracts are an essential component to the career of any professional in music industry, representing opportunities to explore new creative directions. All parties engaging in the development and enactment of a legally binding contract are encouraged to seek council from legal professionals. The contract should shield both parties in the event something unexpected occurs. Most composers will have preferred contracts; performers may find sample commissioning contract templates through the American Composers Forum.¹⁵ Composers and performers may also reference the included commissioning contract templates included in Appendix F. Although, the performer should reference these templates, commissioning contracts are not a "one size fits all" document. Just as each piece is unique, the contract must be. It is essential to define the minimum length of the work, timeline, payment, delivery method, performance rights, period of exclusivities, recording rights, commissioner credits, nonfulfillment terms, and modification terms. Many of these elements, as well as other legal aspects such as arbitration, taxes,

¹⁵ "Career Resources," American Composers Forum, Last modified September 14, 2020, https://composersforum.org/resources/career-resources/.

independent contractor ("not a work for hire"), state of governing law, and indemnification, will depend on the composer and state and federal laws. Clear and avid communication is key throughout this process. The performer should get a keep everything discussed in writing in order to document the collaboration and guidelines.

Establishing the roles which the composer will hold in the collaboration is often overlooked within contracts. This can be instrumental in developing a performance schedule for new works, especially in consortiums. Additionally, publicity and promotional plans can often be discussed be included in commissioning contracts. Depending on the scope of the work and specific the role of the composer can take various forms including assisting with marking and promotion, recording engineer, performer, and/or audience member.

It is essential that the contract establish a concrete clause for payment fulfillment, including payment rate or amount of payment, payment schedule, and how to process the money. If a performer enters into an agreement with a split payment, the contract should note this. Consortium contracts must be clearly documented by consortium heads and members. ¹⁶

In addition to payment, performers are typically entitled to performance rights. The commissioner is commonly awarded a 1-year performance exclusivity period, but the length of time established can be negotiated. Recording exclusivity is often negotiated on a case-by-case basis between the composer and performer and usually ranges between 1 and 3 years. It is also important to define the terms of nonfulfillment, often as "any cause beyond their control including, but not limited to, illness or accident, family tragedy

¹⁶ Edward Ficklin. "Commissioning Agreements (or How to Get In Touch With Your Inner Lawyer)." New Music Box, 2005.

and/or unforeseen acts of nature [or] act of God." Despite this clause's infrequent enactment, performers must know the contract and be protected. Although the specifics of the nonfulfillment clause define the terms caused beyond the composer's control, it is important for both composers and performers to include the ability for arbitration This allows for the ability for a private dispute procedure with the aid of an arbitrator in lieu of going to court. Without this clause violations of the contract, such as extended nonfulfilment by the composer's own nature, will not be disputable. The American Composers Forum offers free office hours that concern common legal issues when commissioning new music.¹⁷ Considering the best interests of consortium members is imperative, as the contract is legally binding on all members. The commissioner should collaborate with the composer in developing the contract, which neither party should sign until they understand and agree on every element. Instead of distributing the contract to the consortium membership, consortium heads often post terms and conditions on a webpage, flyer, or digital advertisement describing the consortium details. All consortium members must agree to the contract terms and conditions via physical, electronic signature, or acceptance of terms upon payment.

When working in a consortium format, the author has occasionally requested additional clauses outside of those mentioned. When working in a larger consortium or with larger-scale works, requesting drafts with deadlines written into the contract can be a good idea. Although some composers are not amenable to such requests, the process allows for collaboration as the project progresses. The author has found that when

¹⁷ Ari Solotoff et al. "Anatomy of a Commission: Discussion Guide and Sample Deal Momo for the Commission of a New Concert Work for Large Ensemble." American Composers Forum. Last Revised June 2023

creating a deadline for a draft, pieces have often developed faster and more functionally due to changes made in the initial draft. This process provides the consortium head with information for membership updates. The following is an example of a clause the author has used in prior commissioning contract agreements.

COMPOSER will deliver at least fifty (50) percent of the SCORE, in a working draft form, by the date of JULY 1, 2021. This may be done in smaller percentages with an overall total of fifty percent.¹⁸

In this example, date of delivery of the initial fifty percent of the score was established as two months prior to the full delivery of the score. This helped the author's ensemble assess any notational, voice leading, range, and playability issues within the initial draft. When attempting to establish draft delivery clause, such as the example above, performers should consider the composer's timeline, performance opportunities, and difficulty of the work. Some, although not all, composers will typically be amenable to drafts between twenty-five to fifty percent (25-50%) completion, with a timeframe of one to three months prior to the full score. Draft timelines will vary depending on the length of the commission, composer workload, and other external factors. Discussing the terms of such clauses with the composer is essential when developing a contract. Do not sign anything until all parties understand and agree on every contract element.

¹⁸ Robert Honstein, Andrew Hutchens, and Daniel Myers, "Echolocate Commissioning Contract," 2020.

CHAPTER 3

AT THE SEAMS BY BALJINDER SINGH SEKHON II

| Year: | 2021 |
|------------------|---|
| Duration: | 7.5' |
| Instrumentation: | Tenor Saxophone and Piano |
| Techniques: | Altissimo, Slap Tongue, Flutter-Tongue, and Circular Breathing |
| Publisher: | Glass Tree Press (https://www.sekhonmusic.com/glass-tree-press) |

Baljinder Singh Sekhon II is an American composer who resides in State College, Pennsylvania, where he serves as Assistant Professor of Composition at Penn State University. Previously he taught composition and electronic music at the University of South Florida. He holds degrees from the Eastman School of Music (Ph.D. and M.A. in Composition) and the University of South Carolina (B.M.).¹⁹

At the Seams is scored for tenor saxophone and piano and was completed in 2021 for a consortium of 30 saxophonists through a commission organized by Andrew Hutchens. Like many of my works, this piece explores the relationship between pitch and time domains by drawing on correlations between intervallic distance in pitch space and the distance between attack points in time. Pitch and time are conceived of as separate but related fabrics that are sewn together and unthreaded throughout the work. The underlying material and surface of this composition reside "at the seams" of pitch and time domains as structures from these realms interact, homogenize, and fall apart. The work is presented in four segments: an

¹⁹ Baljinder Singh Sekhon. "Baljinder Sekhon II." (Penn State College of Arts and Architecture, 2021)

opening section where the threading together of the material is most lucid, a developmental section that explores the juxtaposition of pitches and rhythms from different structural realms assigned discretely to the piano and saxophone, a third segment that experiences the expansion and contraction of rhythmic and pitch materials as the piano and saxophone parts become unglued, and a final segment that searches for the structural strength experienced at the opening but never finds it. Embedded throughout the work is an expansion and contraction of intervallic and rhythmic material, which occurs at varying speeds and mimics human breathing.²⁰

Introduction

I selected Sekhon based on previous studies of his works for the saxophone and his impactful use of the saxophone's color palette. I was hesitant to approach him to write another piece for saxophone, knowing he had several popular works for the instrument and might not want to oversaturate his catalog.²¹ When I asked him about writing a new piece, I suggested very few guidelines to gauge his interest. At first, he hesitated but in a later telephone conversation, he showed interest in creating a work for tenor saxophone and piano. Sekhon discussed his selection of tenor saxophone and piano:

After we first talked, I was [not initially interested], thinking about, "Well, what do I have? What can I do to contribute to the saxophone community that's not just more of the same stuff?" And I had been aware of the tenor sax repertoire being kind of thin. I knew that there was a [recent] Stacy Garrop commission for tenor sax. I remember someone commenting to me... "There's very little tenor sax music." So, there's that...I But also I had been a big fan of the tenor sax. I knew tenor sax sound before I knew the alto sax sound, intimately, from my time ... in South Carolina. There was a jazz place called "Speakeasy." Maybe it's still there. And there was jazz every Monday night, Friday night, and Saturday night. And I went every time, and Robert Gardner was running those gigs at the time, and there was a guy named Rudy Rodriguez in town, who is a tenor sax player. Rudy and Robert would always play tenor and were great. And of course, we are talking about jazz stuff, not classical. But I really loved listening to the tenor sax, the color of the tenor sax, even with a jazz mouthpiece. This is a really nice instrument. I had that sound in my ear for a while. And so, it just dawned on me,

²⁰ Baljinder Sekhon, At the Seams

²¹ Baljinder Sekhon's saxophone catalog includes standards in the saxophone repertoire including *Gradient* for Alto Saxophone and Piano (2008), *Gradient 2.0* for Alto Saxophone and Percussion Ensemble (2012), *Sonata of Puzzles* for Alto Saxophone and Piano (2016), *The Offering* for Alto Saxophone and Orchestra (2011), *Dreamer* for Saxophone and Percussion Ensembles (2021), and *Rendezvous* for 12 Saxophones (2017).

like, "Yeah. Why don't I write a tenor sax and piano piece? I love that instrument, and they need pieces." And I think that's when I proposed that to you...²²

After we agreed on the contract terms, I sought to fill a consortium. The consortium comprised 30 saxophonists, including the author and other notable members of the saxophone community, such as Clifford Leaman, Doug O'Connor, David Stambler, Jeffrey Heisler, and Matthew Younglove.

The Time-Point System

At the Seams is based on the time-point system of composition, which creates a structural connection between intervals, their pitch space, and the attack points in time. The distances between the pitches and time create an isomorphic correlation, and performers can map the elements onto one another to control the elements collectively. The interval-to-attack time ratio represents the correlation between pitch and time. For example, a composer may create a correlation of pitches three semitones apart or three-sixteenth notes apart in attack time. Milton Babbitt first described this compositional system in 1955, with later expansion by Charles Wuorinen in his 1979 book *Simple Composition.*²³ Sekhon used classical-era piano sonatas to describe the subconscious presence of the time-point system in music:

This is something that we can see in music that has existed subconsciously for a long time. For example, in a classical-era piano sonata, you might see that there's a diatonic scale, and maybe in that diatonic scale... Let's say it's eighth notes. F, G, A, those three notes are a whole step apart, and so they could be an eighth note apart in rhythm if every half step is a sixteenth note. But if I'm playing a diatonic scale in a classical sonata and I have a chromatic passing tone, we usually see the chromatic passing tone appear as a sixteenth note in between those two notes. So, when the interval gets smaller, the rhythm gets faster.²⁴

²² Andrew Hutchens and Baljinder Singh Sekhon, At the Seams Interview, personal, December 21, 2022.

²³ Charles Wuorinen, "Rhythmic Organization: The Time-Point System," essay, in *Simple Composition*, ed. Gerald Warfield New York, NY: Longman, 1979, 130–44.

²⁴ Andrew Hutchens and Baljinder Singh Sekhon, At the Seams Interview, personal, December 21, 2022.

Sekhon has been exploring the time-point system in his compositions to create a structural equivalency of pitch and time. The system is apparent in *At the Seams*, *Gradient*, and *Sonata of Puzzles*, with each exploring the time-point system in a different fashion. Sekhon described his use of the time-point system in *At the Seams*:

What I was interested in was what if the pitch material could bring a sense of slowing down and speeding up based on the intervals. So, if the intervals go from being smaller to bigger, the music's going to slow down. If the intervals go from being really big to small, the music's going to speed up. Then what if there are combinations of these things? Then you get stuff like that falling-apart section of the piece, where your ritardando is going, and you follow by slowing down, but the intervals are getting bigger the whole time. So, the pitches are dictating the music slowing down as this happens.

At the Seams contains four collections of pitches that revolve around the pitch Aflat (concert pitch). Sekhon labeled these collections Up/Down – Large to Small, Down/Up – Small to Large, Down/Up – Large to Small, and Up/Down – Small to Large. In the initial collection of pitches, Up/Down – Large to Small, the collection of intervals begin with an ascending tritone and surrounds the constant pitch of A-flat as the collection continues. Intervals get tighter and tighter through an ascending major third, descending minor third, ascending major second, and descending minor second, always returning to A-flat. Figure 3.1 shows the mapped rhythm of the Up/Down – Large to Small collection in the opening phrase of the piece. Figure 3.2 shows Sekhon's original manuscript, which maps out this pitch collection.

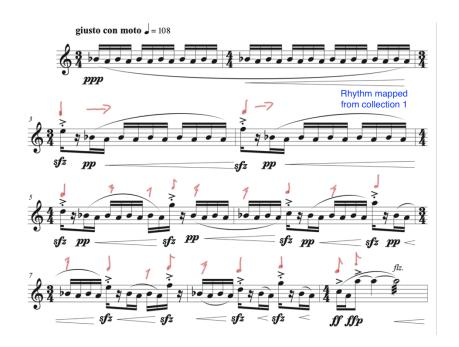


Figure 3.1 Tenor Saxophone. Up/Down – Large to Small Collection. mm. 1-9 (Written pitch)



Figure 3.2 Sekhon manuscript of Up/Down – Large to Small Collection (Concert Pitch)

The second collection, Down/Up – Small to Large, starts on A-flat but begins with downward intervals and goes from small to large intervals, first with a descending minor second. The expansion of intervals has a direct impact on the rhythm. Sekhon discussed this connection with the rhythm:

We get the minor second first, then we get the major second, then the minor third, the major third... this one's growing, so the rhythm is slowing down. What's happening here is every half step in this system is equal to an eighth-note. An A-flat up to a B-flat back down to A-flat is three quarter notes. The minor third is a dotted eighth note. The major third is a half note. Then we get a half note plus an eighth note, perfect fourth. Tritone slows down. So, the pulse stays, but the

rhythm slows down around it. The pulse is kind of like that A-flat, and the rhythm around it is like the intervals getting bigger and smaller.²⁵

This intervallic relationship with time and rhythm continues throughout the collection. The rhythms will either slow down or speed up, depending on whether the performers move from large to small or small to large intervals due to the connection between larger intervals and pitches. The Down/Up – Small to Large collection can be found beginning in measure 24 (see Figure 3.3). The accented sforzandos notated in this excerpt outline time point structure of the pattern. Figure 3.4 shows Sekhon's original manuscript.

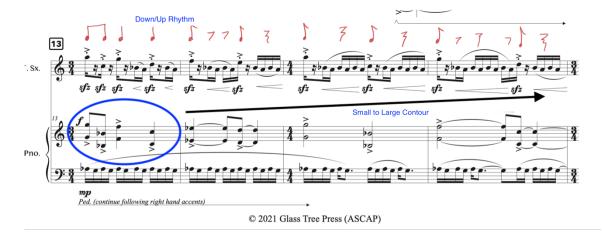


Figure 3.3 Down/Up – Small to Large Collection. Excerpt: mm. 13-16 (Written pitch)

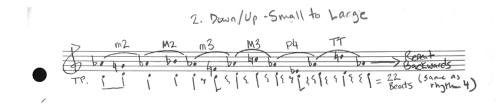


Figure 3.4 Sekhon manuscript of Down/Up – Small to Large Collection (Concert pitch)

²⁵ ibid

The third collection, Down/Up – Large to Small, functions as a combination of the preceding collections. Much like the Up/Down – Large to Small collection, this pitch collection begins with a tritone, except in a descending motion. The tritone interval achieves the same pitch of D-natural in both collections; however, the resulting pitches will be different in each collection. The Down/Up – Large to Small collection "yield a little pitch string, and they yield a little rhythm string."²⁶ Figure 3.5 shows Sekhon's original manuscript for the Down/Up – Large to Small collection, with "T.P." notated to show the time-point rhythm in the phrase. Here, the composer uses space between the points of attack to designate the connection between pitch and time. Figure 3.6 shows this collection in the published score. The Down/Up – Large to Small collection can be found in the piano, while the saxophone contains an Up//Down – Small to Large collection.

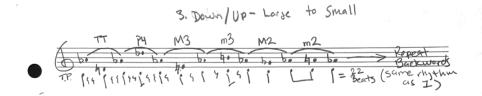


Figure 3.5 Sekhon manuscript of Down/Up – Large to Small collection (Concert Pitch)

The Up/Down – Small to Large collection is the final combination of interval direction and contour in the piece. Figure 3.7 shows the time-point rhythm for this collection in the original manuscript. Figure 3.8 shows the Up/Down – Small to Large collection in the published score.

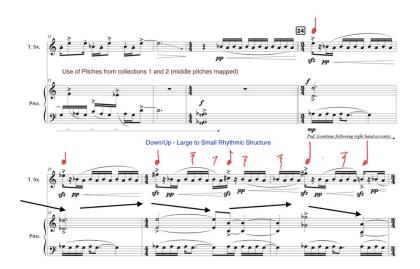


Figure 3.6 Down/Up – Large to Small collection in Piano. Excerpt: mm. 21-27 (Written pitch)

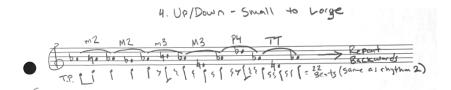


Figure 3.7 Sekhon manuscript of Up/Down – Small to Large Collection (Concert pitch).



Figure 3.8 Up/Down – Small to Large Collection. Excerpt: mm. 31-37 (Written pitch)

In addition to representing the four collections in their original forms, Sekhon expresses each collection as a palindrome, using each collection's material and repeating it in retrograde. Figures 3.9 - 3.12 show each collection and its corresponding palindrome, which provide the building blocks for the entire piece. Each collection contains unique rhythmic qualities. However, collections that begin with the same interval or those with identical contour contain the same rhythm but different melodic contours and pitches. Figure 3.13 shows the use of the full large to small palindrome in the opening of the piece. The original collection is used in measures three through nine. In measures 10 through 19 Sekhon uses the collection in retrograde to complete the palindrome. In his interview, Sekhon discussed the development of these collections and how they correspond with one another:

It's really interesting to me from a structural standpoint to say this string of pitches and this string of pitches are different. They have the same correlated rhythm because the interval content is the same. That was something that I just kind of stumbled upon. That was the beginning of designing the piece. It's pretty cool that the pulse stays the same, but the music around the pulse slows down, just like having a pitch that's the same, like an A-flat, but the intervals around the pitch get bigger or get smaller.²⁷



Figure 3.9 Up/Down – Small to Large Palindrome (Concert pitch)

²⁷ ibid

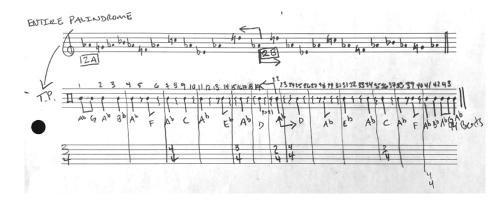


Figure 3.10 Down/Up – Small to Large palindrome (Concert pitch)

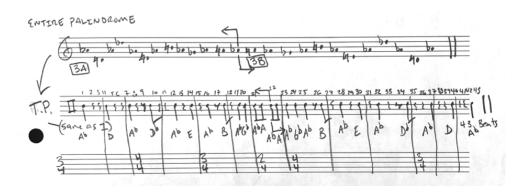


Figure 3.11 Down/Up – Large to Small Palindrome (Concert pitch)

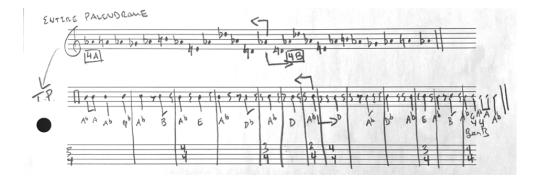


Figure 3.12 Up/Down – Small to Large Palindrome (Concert pitch)



Figure 3.13. mm. 1-20. Full Up/Down – Large to Small Palindrome. Written Pitch

Performance Suggestions

The beginning of piece contains continuous oscillations of B-flat and A-natural (concert Ab and G), creating a continuous tremolo figure between the saxophone and

piano. Sekhon includes sforzando accents throughout, which correspond to various timepoint collections. To further emphasize these pitches and the connection with time, Sekhon writes compact crescendos, flaring from pianissimo to each sforzando accent. In this opening section, accents in the saxophone parts are always mirrored in the piano part. Performers should aim for as wide a dynamic window in each crescendo as possible, emphasizing each accent in the figure. Figure 3.14 shows the saxophone and piano score from measures 5–8.



Figure 3.14 mm. 5-8 (Written pitch)

Sekhon uses three similar effects in style and notation in the opening section of the work. He notated a downward diagonal arrow from the written E-natural in measure 21 (see Figure 3.15), which performers should treat like a portamento figure. The author recommends performers select a note more than a whole step away in the direction of the arrow, then use a combination of voicing and fingerings to create a continuous pitch shift starting at the beginning of the measure.



Figure 3.15 Pitch alteration – downward arrow

Between measures 31 and 32 (see Figure 3.16), Sekhon uses a glissando with an approximate ending pitch notated; the author recommends performers glissando down to B-Flat. In measure 41 (see Figure 3.17), Sekhon uses a traditional portamento between the written pitches of B-natural and B-flat. The author recommends performers use the left-hand second finger to depress the bis key when performing this portamento.



Figure 3.16 Directional glissando



Figure 3.17 Portamento

Measure 42 begins a new section of the piece and a new theme. Sekhon notates *piu mosso* with the tempo marking 110 bpm (beats per minute). The opening low concert A-flat (B-flat for tenor sax) sets the style for the section and becomes a recurring motive throughout the section. Performers approach the written B-flat in various ways, including by step, leap, jump, and/or glissando, some of which span over two octaves in range. Performers should focus on each B-flat as a significant landing point, as they are a note pivotal to the connection of pitch, time, and ensemble throughout this section. The author recommends playing B-flats with a full-bodied sound, and with an aggressive bite on the

front end to satisfy the accent. Performers must find the delicate balance of attack, sustain, and release to match the surrounding content and piano and consistently achieve the fundamental tone of the B-flat. Figure 3.18 shows an example of the B-flat motive in this section.



Figure 3.18 Tenor Saxophone. Example of B-flat motive in mm. 48-50 (Written pitch)

The B-flat motive continues into the section beginning at measure 68. Large strands of quintuplets and sextuplets are paired with crescendos leading to the arrival of the B-flat in the saxophone (see Figure 3.19). Performers should not overlook the correlation between time and dynamic structure throughout this section and the entire piece. Performers should strive for a consistent increase in energy through each crescendo, peaking on the B-flat. Sekhon discussed the dynamics of this section and the entire piece:

Energy! All of this brings about a certain kind of energy that either lends itself to being louder, softer, or something that's trying to break through, like a low note that keeps repeating. It's trying to remind all of the other pitches that this is where the time is at.²⁸



Figure 3.19 Tenor Saxophone. mm. 70-71 Large dynamic flares leading to B-flat (A-flat concert)

²⁸ ibid

To best facilitate lightness and fluidity in the section at measure 68, the author found that an alternate-A sharp/B-flat fingering of 1/5 (see Figure 3.20) was most appropriate in the following locations: Beats 2 and 3 of measure 69, Beat 1 of measure 73, Beat 1 of measure 76, and Beat 4 of measure 77.

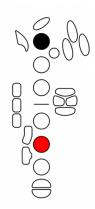


Figure 3.20 Alternate A-sharp fingering

This fingering prepares performers for the F-sharp that follows. Figure 3.21 shows an example of this fingering pattern, where the alternate A-sharp fingering is appropriate.



Figure 3.21. Tenor Saxophone. mm. 73. Example of appropriate usage for altered A-Sharp fingering.

As the rhythm of the section begins to slow, performers must maintain dynamic consistency while ensuring ensemble coordination to outline the time-point structure

In measure 96, Sekhon writes extended accelerandos and ritardandos between the tempo markings of quarter note equals 80 bpm and 110 bmp. Moments in accelerandos should be tension-filled, as if the seams of pitch and time are on the verge of splitting. Moments of ritardando should alleviate the tension caused by the preceding accelerando. Figure 3.22 shows the initial accelerando and ritardando beginning at measure 96. Performers should begin accelerandos immediately and build intensity and tempo to the climax of each accelerando. Ritardandos should relax throughout, almost coming to a musical halt. Preference should be given to the musical line and style rather than precise tempo accuracy.



Figure 3.22 mm. 98-105. Excerpt of initial accelerando and ritardando (Written pitch)

Beginning at measure 141, Sekhon advises the performer to "slowly walk behind piano or turn and face piano, very close inside." The performer should remain here for the remainder of the piece. In his interview, Sekhon described this effect as "the performer is going to go look somewhere for something, and we don't know what they're looking for, but we can feel that that's missing" and "living at the seams of the piece." He further discussed this effect:

Part of my visualization of those two realms is one of them is on this side of the piano, and one of them is on [the other] of the piano. So you're going to a different place. I was thinking of them like dimensions. The dimension of rhythm and the dimension of pitch. You actually go to the other side. You go to another place that you haven't been in the piece, and you discover something there, and it's time. The A-flat is sitting back there, or sitting in the piano, whichever one the performer decides to do.

It became less important to me, actually, that the performer went behind the piano and more important that they just went somewhere else. It could be just turning around to the piano; it could be going somewhere else. They could leave. But the point was that they were looking for this thing that's missing, and they find it.²⁹

Measure 142 contains a series of trills on both sustained pitches and collections of

trilled flourishes, as shown in Figure 3.23.



Figure 3.23. Tenor Saxophone. Trills and flourishes. mm.146-148 (Written pitch).

When approaching flourishes, the author recommends selecting fingerings that facilitate the ease of the trill and lightness. The author primarily avoided long-tube fingerings for D-natural, D-sharp, and E-natural notes. Performers should group pitches in a way that best outlines the shape of the line. For example, Figure 3.24 shows the flourishes in measures 153 and 154. To facilitate metronomic stability, the author grouped the flourishes into 5 + 4 + 3 + 3. To facilitate a trill effect, performers should incorporate

²⁹ ibid

additional oscillations between various notes in the pattern. For example, performers could add extra oscillations between the initial D-sharp and E-natural to produce a trill effect.



Figure 3.24. Tenor Saxophone. Additional trills and flourishes. mm. 151-154 (Written pitch).

Sekhon discussed approaching this section in his interview:

I really like the idea of knowing something so intimately that it just seems like I'm improvising... So I thought, "Well, I want them to do these little nonchalant gestures." I was thinking of effortless flourishes. And the thing about the trill is that it mucks it up. The trills, rather than just going up and down, should be a continuous effect. The idea is that it's fluttering the whole time. It's unsteady to me. It helps free it from this sense of control, from the sense that you're trying to do it. I've said to other people, "Well, it's not really supposed to be anything. You're just playing a trill, and it starts to float away, and it comes back. It floats really far away and comes back, or just floats a little bit and comes back.

At the conclusion of the saxophone flourishes in measure 170, the seams of the

piece become separated, leaving the immediate presence of time obscured to performers due to the removal of the concert A-flat in both parts. The removal of concert A-flat, the most centralized pitch, obscures both pitch and time, causing a non–pulse-oriented feel, obscured downbeats, and the disappearance of consistent rhythmic figures. Figure 3.25 shows measures 179–181.



Figure 3.25 mm. 179-181. Pulse obscured by polyrhythm in piano (Written pitch)

Sekhon uses syncopation sewn together with flourishes in the piano to form polyrhythms that obscure the dimensions of pitch and time. Due to the obscured pulse, the ensemble members must practice appropriate score study techniques to facilitate ensemble alignment. The author recommends saxophonists approach this section less as an exercise of perfection and more as coming together and pulling apart, such as seams ripped out and resewn. Performers should create checkpoints in the music, primarily downbeats of measures that are accessible for both players to connect.

The return of the concert A-flat in the final measure (see Figure 3.26) of the piece provides the missing element the ensemble has been searching for throughout the entire section.



Figure 3.26 mm. 193-end. Concert A-flat (saxophone written B-flat) returns. Use of downward arrow (Excerpt in written pitch)

When the ensemble reaches the final measure, the saxophonist must aim for the B-flat to "sneak" back into the texture, alongside the sustaining minor third chord in octaves of the piano. To produce the ending fall effect, indicated by the descending arrow, the author recommends that saxophonists decrescendo along with the piano's sustain using a combination of fingering and voicing changes. Saxophonists should aim for a minimal yet conclusive fall to end the piece. The author does not recommend a significant pitch shift from the written B-flat, as it provides finality to the ending.

CHAPTER 4

INTREPID BY RUSSELL WHARTON

| Year: | 2021 |
|------------------|--------------------------------|
| Duration: | 7.5' |
| Instrumentation: | Alto Saxophone and Fixed Audio |
| Techniques: | Altissimo and Polyrhythms |
| Publisher: | Russell Wharton |

Russell Wharton is a percussionist and composer based in Nashville, Tennessee,

whose work often involves the use of electronic media and, more recently, film. Wharton

is an Adjunct Instructor of Percussion at Middle Tennessee State University and the

Battery Coordinator for the Cavaliers Drum and Bugle Corps. He holds degrees from

Indiana University (M.M. in Percussion Performance) and Texas Christian University

(B.S.Ed.).³⁰

As the title suggests, *Intrepid* aims to capture the adventurous spirit of those who venture into the unknown. Though humanity has explored most (but not all) of our planet, the frontier of outer space is a much greater wilderness—one in which we have barely left our front porch. We have much exploring to do, and much to learn.

Intrepid follows a loose narrative in five parts:

- 1. Dreaming: We look up to the stars and imagine our future among them.
- 2. Exodus: We depart from our home with ingenuity and bombast.
- 3. *Wandering*: We float unmoored through the stars, searching for...something.
- 4. *Contact*: We find that "something." It is terrifying and overwhelming, though not hostile...

³⁰ Russell Wharton. "Russell Wharton Bio."

5. *Integration*: We commune with that "something," become more like it, and, finally, we soar like never before, radiant with power and ecstasy.

We have long been fascinated by stories such as these, so this piece is an attempt to pay homage to those stories. Inspiration comes from 2001: A Space Odyssey, Interstellar, Outer Wilds, First Man, and the series Remembrance of Earth's Past by Liu Cixin.³¹

Introduction

One of my percussion colleagues introduced me to Russell Wharton's music when we were giving a Spring 2021 clinic performing Russell's piece, *Kingdoms*, for snare drum, fixed media, and video. I have always found percussion music thrilling, but further investigation of Wharton's electronic writing sparked enthusiasm to connect with him. Wharton had only worked with percussion at that point in his career, so we were both hesitant to collaborate on a work for saxophone. During our initial contact, I gave him relatively few parameters except the use of fixed media and a preference for lots of bass. Russell is a tremendous fan of Hans Zimmer's music, so when I proposed something space-themed, he jumped at the opportunity. Wharton said,

I just found the challenge exciting. It was different. It was a different sort of workflow for me. And I think you specifically referenced my pieces *Metro* and *Kingdoms*. Those were the ones that led you to ask me to write this. So, when I was writing this, I'm like, "Okay. I guess can put it in that style," (by which I mean) that the style of electronic writing is very on rails. Both of those pieces, *Metro* and *Kingdoms*, I was writing something that my mom would enjoy, right? Some of it is not super deep, or I'm not trying to get as complicated as I can harmonically, or whatever. I'm not trying to make myself look like a really fancy composer... I'm just trying to write something that I think is accessible and I like the sound of, and other people will like the sound of as well... I hesitate to put it this way, but there's a little bit of a "popcorn" quality to it, that I was excited to embrace when it came to this piece. You gave me some guidelines, and I can't remember if you mentioned Sci-Fi, but you did mention *Interstellar*. My reaction when I saw that was ...I'm so continually inspired by film scores, and probably Hans Zimmer more than any of them. And my reaction was, "Andrew, it would

³¹ Russell Wharton. Intrepid. 2021

be impossible for me to write something that doesn't sound a little bit like *Interstellar*."³²

Wharton and I spoke regularly about saxophone fundamentals and notation. He sent drafts for me to record, and I worked with him through a few saxophone performance issues. As the piece came together, we met via Zoom for coaching before performances. The electronics within the piece, although are fixed and do not require any live triggering or processing, are an integral part to the narrative and sound world of the piece. Through these discussions, Wharton and I would discuss different ways we could exploit the saxophones melodic and percussive qualities through use of various processing techniques and electronic plugins. A full discussion of Wharton's development of electronic score to *Intrepid* can be found in Appendix E. In the summer of 2022, I recorded the piece in Columbia, South Carolina. *Intrepid* was funded independently.

Form

Intrepid does not follow any traditional Western European music form. Instead, the narrative is structured into five distinct, programmatic sections. Each section is organized melodically, with subphrases creating phrases which are themselves related to larger subsections. Performers may consider these larger-scale phrases from macro- and micro-perspectives.

The first section, "Dreaming," begins at measure 1 and ends at 45. Wharton described this section as follows:

I wanted the audience to fill it in themselves. So, the "Dreaming" section is I'm the dreamer, or the hero, of this story. And I'm at home, and I'm dreaming of leaving. It's your classic story. I'm home and it's comfortable, but I want to leave

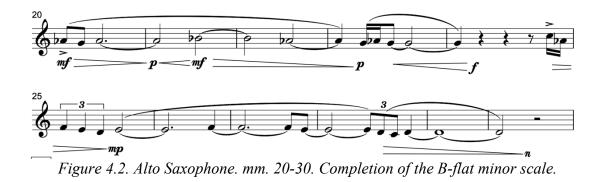
³² Andrew Hutchens and Russell Wharton, Intrepid Interview, personal, December 26, 2022.

and see what else is out there. When I'm thinking of dreaming, I'm thinking more of daydreaming, really. Just imagine Matthew McConaughey at the beginning of *Interstellar*, right? He's working on his farm, but he knows there's something more to this. Right? So, I mean dreaming in a daydreaming, wishful sort of way. So, not necessarily like sleep dreaming.³³

Using major and minor modes and the melodic minor scale, the composer divided this section into three phrases. The first phrase encompasses measures 5 through 19, and the second phrase spans measures 20 to 30, beginning with the introduction of A-flat. The third phrase, from measures 31 to 44, begins on D-flat before introducing an E-flat into the scale. In each phrase, the composer builds upon prior material to complete the Bb melodic minor scale used throughout the entire section. Figure 4.1 shows the opening saxophone motive and beginning usage of the B-Flat minor scale. Figure 4.2 shows the completion of the scale later within the section.



Figure 4.1 mm. 1-8. Opening saxophone motive



³³ Andrew Hutchens and Russell Wharton, Intrepid Interview, personal, December 26, 2022.

Prior to the "Exodus" section, measures 45 through 51 act as transitional material for the performer to become fully "in time." The middle developmental section of the piece begins at measure 52 and ends at measure 109. The entrance of the drums at measure 52, which signals the beginning of this new section, is shown in Figure 4.3.



Figure 4.3. Alto Saxophone and Track. mm. 47-53. Drum entrance

The composer described this section as "really violent and intense...there's a lot of bombast to it." The section's variety of melodic and electronic material merited dividing it into subsections. Subsection 1 begins at measure 52 and continues until 68. As shown in Figure 4.4, the composer used a six-bar phrase from measures 52 through 57, with three-bar subphrases to separate similar musical ideas. Measure 58 begins the final phrase of the section, creating an eight-bar phrase. Performers should group the final three sixteenth notes of measure 58 with the musical material of measure 59 to create a more cohesive musical line and true eight bar phrase. Subsection 2 begins at measure 68 and continues until 85. Although the section remains the same as its predecessor, due to the bombastic content and narrative, there is a large shift within the electronics to denote a change of subsection. Here the electronics move to the background, thinning out the texture, allowing the saxophone into the foreground with lower register, aggressive articulated, syncopated (Figure 4.5).

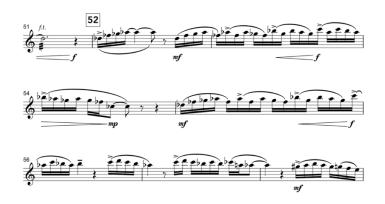


Figure 4.4. Alto Saxophone. mm. 52-57. Six Bar Phrase



Figure 4.5. Alto Saxophone and Track. mm. 64-74. Shift to subsection 2

Subsection 3 begins at measure 85 with a clear change in material within the electronics. Wharton writes, "synth bass" in the score, transitioning from a building harmonic progression to consistent sixteenth note runs which the harmonic and tempo structure of the subsection. This lasts through the end of the section at measure 109, with the intensity continuing to build throughout. Accelerando begins at measure 88, increasing the tempo to 155 bpm by measure 93 to 190 bpm at the close of the section. Figure 4.6 shows the final moments of accelerando throughout this section where Wharton adds kick drum in the electronics to lead into measure 109.

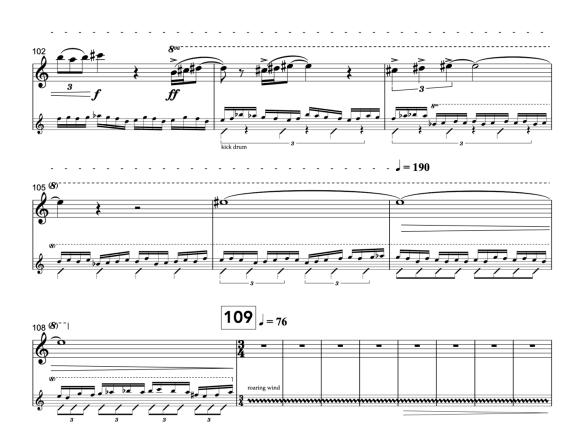


Figure 4.6. Alto Saxophone and Track. mm. 102-116. Final moments of accelerando and entrance of kick drum

Furthermore, understanding the phrase structure of this subsection is subsidiary to simply following the line of the music and keeping up with tempo changes and intensity. Indeed,

spinning out long melodic lines and being attentive to these changes is a key to one's interpretation of the entire "Exodus" section. Following the intense section, the character of the piece shifts leading into the *Wandering* section, beginning at measure 109 and continuing through measure 174. This section is marked by an arpeggiated synthesizer effect as shown in Figure 4.7.



Figure 4.7 Arpeggiated synthesizer line within the Wandering section

In his interview, the composer described the narrative of this section:

We're finally free of the atmosphere, we're free of all the chaos of below. That's meant to feel like we're traveling very quickly, but also there is a stillness to it, because [in] space travel, speed is relative. If I'm going whatever speed I'm going, I'm also standing still, right? My speed is only relative to some other body. There's supposed to be an incredible velocity happening in the track there, but a stillness and a calmness in the actual player, but also, a little bit of fear. Toward the end of that section, there's a turn, something changes, we break through something.

In addition to the arpeggiated synthesizer line at the beginning of the section, the tempo slows immediately to 76 bpm. The slower tempo brings to the fore the relationship between the saxophone and the synthesizer, allowing the synthesizer line to surround the saxophone line rather than simply support it.

At measure 137, the form begins to follow a traditional eight or 10-bar phrase format; however, the synthesizer assumes an even more important role The saxophone spins out an eight-bar phrase from measure 141 through measure 148. In each measure, the synthesizer enters in unison with the saxophone to either fill in a rest, such as in measures 141 and 142, or echo its material. The synthesizer introduction creates a slight disruption to the form as the electronics continue building through measure 162, increasing to a shattering effect and a deep bass drop in (measures 156-159) and a raging arpeggiated synthesizer line (bars 160-161). Throughout these moments of what the composer calls "fear," the saxophone and synthesizer are blending closer and closer together until the inevitable full immersion at measure 169 on the saxophone C-natural with a CS-80 synthesizer. Figure 4.8 shows the continuity of the saxophone and synthesizer material throughout this section.

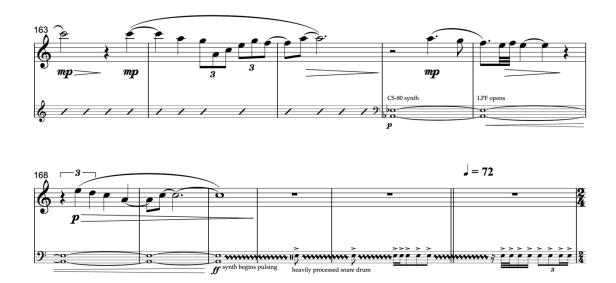


Figure 4.8 mm. 163-172. Integration with CS-80 synthesizer

The "Contact" section commences with measure 174 and lasts until measure 209. In this section the synthesizer further increases in intensity within the piece, shaping the form and our perception of the section completely. The composer described the section as follows: The "Contact" section arrives, and that is just meant to basically sound like we're having a conversation with an alien. I mean, I tried to go for something that was, well, just alien and foreign and really in your face and violent. I'm imagining communing with a being that is just perhaps massive, ancient, or something beyond our comprehension. Almost in a *Lovecraft*-ian sort of way. Just something that is so different than anything we've ever seen before, that is literally mindblowing. So, we recorded these snare drums, and then we just processed them as much as we could. The snare drum was good, because not only am I comfortable on it, but we could do these really weird, angular rhythms. We could make it huge, put a vocoder and all sorts of distortion on it. And the saxophone is meant to be a meek little human against the terror of this massive voice, essentially. But then toward the end of that, those things...the voice melds with our voice.

Breaking the form of this section into subsections or phrases is not possible; the content is gestural. The saxophone creates a dialogue with the synthesizer, which should be seamless. Figure 4.9 shows the connecting dialogue between the saxophone and synthesizer in measures 185 through 187.



Figure 4.9. Alto Saxophone and Track. mm. 185-187. Dialogue between saxophone and processed percussion

Intrepid's final section, "Integration," begins at measure 209 and continues through the end of the piece. The culmination of *Intrepid* is what the composer describes "as jubilant, almost as if we're flying through space drunkenly, or something, and just pure ecstasy. It's as if maybe whatever that thing we were talking to let us in their home, or maybe it gave us some of what they know." The sense of integration with some otherworldly being in the narrative becomes a reality within the score and form of the piece, unifying not only the saxophone and synthesizer completely, but all five sections of the piece. This section can be classified as gestural material within the narrative. Figure 4.10 shows the opening gesture of this section where the saxophone and synthesizer are in full rhythmic unity. Figure 4.11 shows the closing gesture of the piece. The saxophone maintains a sustaining written F-natural (concert A-flat) through measure 241, while the synthesizer sustains octave fifths below.



Figure 4.10. Alto Saxophone and Track. mm. 209-213. Opening of Integration section.

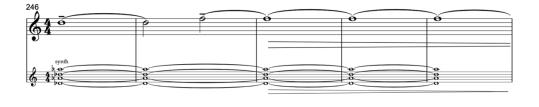




Figure 4.11. Alto Saxophone and Track. mm. 246-end. Closing unison line of piece

Performance Suggestions

One difficulty performers encounter when performing *Intrepid* performers is the in-ear click track. Although it is there for the benefit of the performers, the click track can become a hindrance if not approached correctly. The improvisatory nature of the work requires performers to push and pull the time, sometimes to large extents, within the confines of a steady in-ear click track. This can at times obscure the alignment within the click track, causing in-ear phasing and measure overlap. Performers should approach this piece as if it were multiple movements, striving to create a unique character and color combinations in each section. The opening section of the work, "Dreaming," is one of the most difficult sections to portray musically as a performer. From the perspective of the audience, there is no clear sense of pulse, furthered by the low, metrically indistinct, ominous lines from the saxophone. In the piece's opening line (Figure 4.1), performers should focus on the direction of the melodic line, with a destination point of measure 10. Keeping the ending goal of each short phrase as the primary objective can help performers create musical moments independent from those of a strict click track.

When describing the performer's role, Wharton uses the term "improvisatory" frequently. He discussed the opening section in his interview:

What I wanted to give you was a version where if you just played exactly what's on the page, it would work. It would be good. So, I wanted to make your job really easy. You can just play this. The performer is also free to improvise within that. Start this a beat or two earlier. You don't have to play these exact rhythms. It doesn't work if it's super exact. But I wanted to give the performer as much help as I could, and then let them know that they are free to break out of that if they're comfortable. Now, that's hard when a click track is going on, because the click track keeps you in that on rails mindset, but I wanted to give it something, like at measure 20. When measure 20 hits, boom, right on that downbeat, we can enter there. That's a nice checkpoint that keeps me on track.

These "check points" are a necessity in the opening section, especially measure 31, when the electronic ostinato changes chords. From measures 31 to 45, performers must create a color change to connect the opening section to the new section at measure 52. In this section, the author increased the use of vibrato and pacing while moving toward measure 45, which should be the first occurrence of strict "in time" tempo. Although all performers should be in time here, the succeeding section sets up a consistent pulse for the entrance of the drums at 52.

When performers begin applying improvisational qualities to *Intrepid*, they should begin by learning the notated rhythms in time with a metronome. Once performers feel comfortable with the notated material, phrase structure, and cues within the electronics should begin experimenting with an improvisatory feel aiming only for checkpoints with the metronome When performers become comfortable, performers should transition to the use of in-ear monitors or headphones. The use of headphones will distort the audio perception and create an increased challenge when approaching the improvisatory feel of *Intrepid*, primarily within the *Dreaming* section. Establishing an improvisatory feel, check points within the phrases, and the ability to separate what one hears versus what one plays early in the process will produce a more defined narrative within the "Dreaming" section and the piece as a whole.

At measure 174, the performer must know the narrative and electronic parts as the "Contact" section begins. Approaching this section, the saxophonist must be precise in

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both rhythmic and dynamic accuracy. Short bursts of dialogue between the processed snare drum and the saxophone dovetail into one another and must maintain intensity throughout (Figure 4.9 and 4.12). Much like the preceding sections, performers should focus on the direction of individual musical lines to build intensity toward measure 209.



Figure 4.12. Alto Saxophone and Track. mm. 174-177. Opening of Exodus Section. Dovetail dialogue

Performers should be aware of their relationship with the synthesizer throughout *Intrepid.* Throughout each section of the work, the concept of the electronics unifying with the saxophone, both in pitch and rhythm, becomes increasingly common. It is essential that performers know how they are interacting with the synthesizer. Each section presents more scenarios where the saxophone and electronics are in rhythmic and pitched unison. Although this relationship grows increasingly stronger throughout the piece, it becomes particularly evident within the closing section, "Integration." In this section, the saxophonist and electronics are fully integrated and in unison, as shown in Figure 4.10. This integration not only applies to both lines occurring simultaneously, but also to their unified ensemble. Additionally, performers should be delicate with their use of vibrato, as its use with unified electronics such as the synthesizer could distort the context of the narrative and will not create a blended sound. The endless sustain and

consistent pitch properties of the synthesizer can immediately alert performers and audiences to discrepancies. Additionally, performers should avoid unnecessary breaths that break phrases, as these will create a gap and allow the synthesizer to take over.

Figures 4.13 and 4.14 show the quintuplets and sextuplets in measures 226, 235, 238, and 241. The performer should interpret the descending linear patterns in these measures as falls, using the provided notes as a guiding set and filling in a continuous fall or rise throughout the notated passage. Notably, the saxophonist should land on the written A-natural on the downbeat of measure 227, as shown in Figure 4.13. After completing each fall, a performer may find it challenging to remain in time. The electronics enter on the downbeats of measures 227, 237, and 242, where they again join the saxophone in unison.



Figure 4.13. Alto Saxophone and Track. mm. 226-229.. Improvisation fall in measure 226



Figure 4.14 mm. 234-242. Improvisation falls / rises in measures 235, 238, and 241

The saxophonist must take a full breath within one beat to remain integrated with the synthesizer and achieve a true *niente* without going flat. Additionally, the final phrase includes a heavily syncopated line in unison with the synthesizer (Figure 4.15). The saxophonist should not rely on the synthesizer to place their rhythms in performance. The author recommends that the performer begins this section by working on a 2:3 polyrhythm before attempting the phrase on the saxophone.



Figure 4.15. Alto Saxophone and Track. mm. 242-245. Integrated syncopation with synthesizer line

CHAPTER 5

UNITY SYNONYM BY MICHAEL LAURELLO

| Year: | 2019/20 |
|------------------|---|
| Duration: | 10' |
| Instrumentation: | Alto Saxophone and Marimba |
| Techniques: | Rhythmic and Pitch Unison and Polyrhythms |
| Publisher: | Things Grow Like Trees Music (ASCAP) |

Michael Laurello is a composer and recording/mixing engineer based in northwest Ohio. His music expresses his fascination with temporal dissonance and emotional immediacy. Laurello works as a freelance composer and engineer while serving as Manager of Recording Services and Technical Engineer for the MidAmerican Center for Contemporary Music at Bowling Green State University. He holds degrees from Berklee College of Music (B.M. Music Synthesis), Tufts University (M.A. Music) and the Yale School of Music (A.D. Composition).³⁴

About Unity Synonym, he writes:

I've always been fascinated with musical "togetherness." Coincidentally, when Andrew Hutchens and Daniel Myers contacted me about a potential commission for their ensemble, one of their requests was that the saxophone and marimba be on equal footing with one another—not a melody–accompaniment relationship. I decided to take their request rather literally.

Unity—and the lack thereof—also has a particular resonance in contemporary society. I felt it was worthwhile to attempt to build an artwork that reflects back

³⁴ Michael Laurello. "About/Contact."

on the listener notions of solidarity. *Unity Synonym* is dedicated, with thanks, to Andrew and Daniel.³⁵

Introduction

I first heard Michael (Mike) Laurello's music at a University of South Carolina percussion ensemble concert during the first year of my Masters Degree. As the ensemble performed his piece, *Spine*, I found his use of textures, color, and groove captivating. A year later, I contacted him about a piece for saxophone and marimba. At the time, my percussion colleague and I were struggling to find repertoire for the genre with anything other than saxophone melody and marimba accompaniment roles. We wanted a piece where the roles were equally balanced. When Laurello sent us the initial draft, both parts were in melodic and rhythmic unison for almost half the piece. As the saxophonist of the group, and the only one who could adjust pitch, I was extremely worried. Later that week during our initial reading of the piece I soon realized that the composer had created an entirely different timbre that blended in a unique way, capturing exactly what we had asked for. *Unity Synonym* contains intense collaboration relationships, challenging the performer's mental toughness, musicianship, and aural skills. Laurello discussed the work's conception in an interview:

Most of the piece was just improvised, which is how I write most of my works. I will essentially just record myself for a really long time. I had an idea that I was just working with a single line for this piece, for the most part. I just recorded for a long time me playing single lines, all this material. I usually wait for a while, come back to it and listen, and see if there is a germ of an idea in there somewhere. I think when I listened back to this one, I heard those stacked fifths, and I thought, "Oh, okay. The melodic fifths... that's going to be the intervallic

³⁵ Michael Laurello. Unity Synonym. 2020

underpinning for the work." Then I started again, improvised again with that in mind. $^{\rm 36}$

Form: Unity and Synonym

Unity Synonym is a through-composed piece in two sections. Although no traditional form exists in each section, which the composer calls *Unity* and *Synonym*, performers can break down passages by motivic material to aid in analysis and rehearsal strategies. The title referrers to the idea that the music would be a synonym for the concept of unity. The togetherness expressed by the musical ideas of unisons, hocketing, and polyrhythms exude unity. Laurello states that a portion of the title can also be attributed to the commentary on the difficulty of playing something precisely together. "This can often be difficulty for people, in general, to be unified in a belief or action."

Part 1 centers around the concept of total unity, both rhythmic and pitch. Due to the changing melodic, harmonic, and rhythmic content this section can be broken down into seven smaller sections: the beginning to C, Block C to measure 51, measure 51 to F, Block F to measure 84, transitional material measures 85-H, Block H to I, and Block I to K (subsection at Block J).

Part 2 section, beginning at Block K, breaks up the prior section's monophony using symmetrical interlocking rhythmic structures. *Synonym* draws from part 1 for thematic material but remains independent within the form. This section can be broken up into nine smaller sections, with material from part 1 returning in in the latter half. Smaller sections include Block K to M, Block M to N, Block N to O, Block O to Q, Block Q to R, transitional material Block R to S, Block S to measure 248, measure 248 to V, and Block V to end.

³⁶ Andrew Hutchens and Michael Laurello, Unity Synonym Interview, personal, January 4, 2023.

Performance Suggestions

Before approaching *Unity Synonym*, saxophonists must understand and prepare for the intense intonation challenges the piece contains. The marimba cannot adjust intonation, leaving all adjustments to the saxophone. The saxophonist should work on a variety of intonation exercises; a chromatic descent may be particularly helpful. To practice this exercise, performers should begin on a B-natural above the staff and descend three notes chromatically with a drone, playing each three-note group very slowly twice, focusing primarily on the intervallic relationship and intonation of each descent. Clifford Leaman describes this exercise in his clinic handouts below:

Absolute timbre match between all notes is the ultimate goal, and while fourthline "D-natural" to third-space "C-sharp" is a generally recognized problem area, there are many other instances where the timbre will not match properly without some effort. *The key to making timbre match in all circumstances is intonation* [emphasis added].³⁷

In preparation for this piece, the author worked with *The Tuning C.D.* daily, tuning dominant seventh chords throughout the range of the saxophone.³⁸ Performers could easily condense this exercise to a simple tonic and dominant figure. Further instructions and exercises on how to use this intonation training tool can be found in the instructional manual.³⁹ The saxophonist should pay particular attention to the keys of E major, F major, B major, B minor, D minor, and Db major because the correspond the major tonal centers of the piece. *The Tuning C.D.* uses the A = 440hz frequency; however, when performing with marimba, the saxophonist must tune to A = 442hz. Tuning at this frequency may be achieved by using any common tuning device with a

³⁷ Clifford Leaman, "Tone Clinic," 2020.

³⁸ Richard Schwartz, *The Tuning CD A=440* (2019)

³⁹ Richard Schwartz, *The Tuning C*, Instructional Manual (2019)

drone. Figures 5.1 - 5.3 show fingerings the author used to facilitate ensemble intonation and blend. If performers work with intonation exercises at varying levels of dynamic range, they will achieve greater success with the unison figures in *Unity Synonym*.

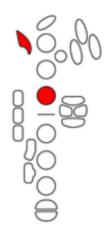


Figure 5.1 Alternate C-sharp used to raise pitch. Will not work on modern Selmer-Paris saxophones

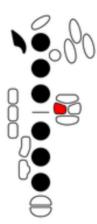


Figure 5.2 Cover fingering for D-natural (in staff) to lower pitch

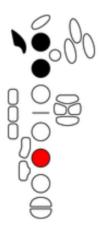


Figure 5.3 Cover fingering for A-natural to lower pitch. Performers may select either the fifth or sixth finger to cover the note.

The first half of *Unity Synonym* relies heavily on the effectiveness of both performers to create a blended sound and a compelling visual performance. The most important line of the work is the opening phrase, which establishes the unity between the two performers and creates a color palette that will continue for approximately half of the work. Figure 5.4 shows the initial phrase with the saxophone and marimba score, a piano dynamic indicated in each part



Figure 5.4 mm. 1-5. Opening unison melody

This section aims to create a soundscape that creates a sense of a single "hybrid instrument," a perfect mix of the saxophone and marimba timbres, out of two. In the case of the opening phrase and those following, the author found it extremely difficult to achieve this blend at the notated dynamic level. Performers should remember that dynamic levels are guidelines throughout the portions of unison in this piece and emphasis should be placed on maintaining a sense of cohesiveness and blend throughout each line. Specific to the opening phrase, the author found that increasing the dynamic of the saxophone to approximately *mezzo piano* enabled a much fuller blend between the two instruments.

Starting at letter F, the composer introduces quintuplets and mixed meter to develop prior melodic material. Figure 5.5 shows an example of the two quintuplets in measure 68 and surrounding measures. Throughout these and similar measures, the performers must continue a duple subdivision of the beat to prevent the quintuplets from dragging and maintain a consistent pulse while moving back into the groupings of sixteenth notes; the only exceptions are in the asymmetric measures such as those in measure 69. The alignment of the quintuplets with the marimba is one of the most important elements, as it is easy to inadvertently create a phasing effect. The author recommends that the saxophonist focus on the consistency and metronomic values of the larger intervals in each quintuplet. To best achieve this, an ensemble should collectively group each quintuplet in the same manner, either 3 + 2 or 2 + 3, with regard to the surrounding musical material. The quintuplets in measure 68 (see Figure 5.5) show a 2 + 3 grouping. The author has found that grouping any form of tuplet with the largest at the end provides a driving force into following musical material that would otherwise not exist.

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Figure 5.5 mm. 61-68. Quintuplets at letter F

At letter H, the composer notates the instruction Rubato. Although this section is

a significant style change, performers should not confuse it with an improvisatory feel.

The two lines must still be in unified. Laurello spoke about the section at H:

I knew I wanted it to move faster... You could look at this without any dynamics, mood markings, or slurs as some sort of mechanical exercise, where it's rigid and it doesn't feel like there's a lot of life in there, just the way that the rhythms are notated. I think with the *rubato*, I wanted to hopefully inject some push and pull, almost like with a watercolor, and washing over the surface a little bit, rhythmically, so that you did not feel, as a performer, that you were beholden to putting on a click track and trying to nail this thing out. That was about things speeding up and slowing down.⁴⁰

In the Rubato section, performers should pay close attention to the metric

modulations in and between each measure. These metric modulations influence the

⁴⁰ Andrew Hutchens and Michael Laurello, Unity Synonym Interview, personal, January 4, 2023.

amount of rubato a performance will create. Figure 5.6 shows the metric modulation in measures 85–88, which acts as an introductory phrase into H. Asymmetric bars such as these will cause nonalignment with the metronome and bar line.



Figure 5.6 mm. 84-88. Metric modulation leading into letter H

Performers should subdivide at the sixteenth-note level for nearly the entire work to maintain the direction of the line and alignment of asymmetric measures. If working with a metronome, the author recommends working in small phrase structures without the accent at the measure to reinforce the subdivision. Figure 5.7 shows the metric modulations in Letter H. Within the measure, the subdivision changes each beat, going from triple to duple, then quadruple.

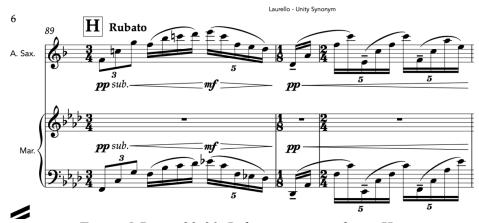


Figure 5.7 mm. 89-91. Rubato section at letter H

Going into Letter K, Laurello notates *attacca*. Performers should strive to keep an organic transition, to facilitate a seamless connection between the two sections. In part 2, performers trade symmetrical rhythmic figures offset from one another. Common pitches often complement these interlocking figures, recounting the prior section. Performers should carefully note the accent pattern in these interlocking lines as they create the melodic structure. Figure 5.8 shows the interlocking rhythmic qualities and melodic accent pattern in measures 121–122 of the *Synonym* section.

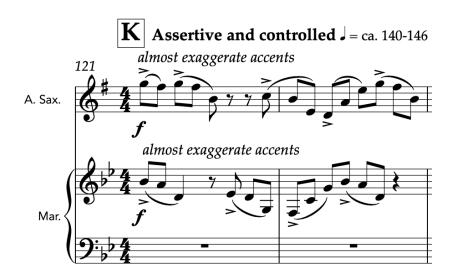


Figure 5.8 mm. 121-122. Interlocking rhythms at the beginning of part 2

Letter N is the first time the two performers come together in part 2. The melodic contour of this section relies heavily on the descent toward the open fifth interval, which is present at the end of each pair of groupings. The saxophonist must follow the accent pattern notated, not only to accurately match the sustain of the marimba, but to create a triple subdivision feel. Figure 5.9 shows the accent pattern and arrival of the open fifth interval at Letter N.



Figure 5.9 mm. 151-155. Perfect fifths in marimba at letter N.

Letter N's motive foreshadows the expanded motive at Letter S. Laurello indicates "powerfully" above this section, which modulates from a loose Bb major to E major (see Figure 5.10 below). In his interview, Laurello discussed the dramatic modulation of this section:

Well, it's like that moment in [Steve Reich's] *Electric Counterpoint*, when it modulates, and ... you get chills. It's basically, "Okay. I'm in this section, and we're humming and moving forward, and how can I create this chill generator that just keeps moving and moving?" Always be pushing forward so that when you arrive somewhere new the listener is like, "Oh... I don't care what happened before, this is it right now." You're constantly building energy and building energy, whether it's becoming softer or louder or whatever, but you're always bringing the listener forward. I think a key change naturally is just a caffeine injection sometimes.

Although the section at S appears to follow the same motivic structure as the music at Letter N, Laurello gradually begins to embellish both parts, interlocking the rhythms and adding in material from part 1n. Throughout this section, the saxophone should pay careful attention to the uppermost accented C-naturals. These notes are most often accompanied by octaves in the marimba (Figure 5.10) and can become very bright if exaggerated.

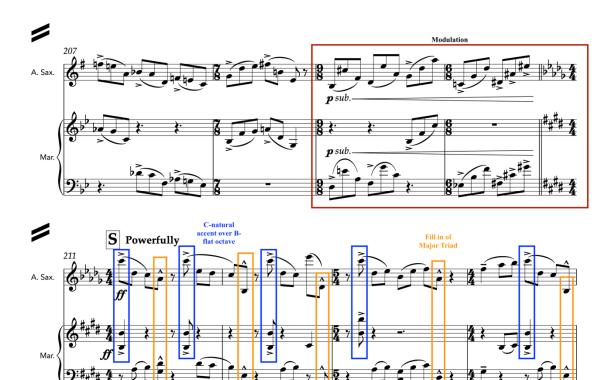


Figure 5.10 mm. 207-214. Modulation into letter S. Saxophone C-natural accents with marimba B-flat octaves

The expansive range, key changes, and unison lines within this section may contribute to many potential intonation problems. In addition, both performers must know exactly where they interlock. At the moments of pre- and post- alignment and interlocking, both performers must agree on the phrase structure and note groupings. As the quintuplets reenter in measure 241 the concepts of the two sections of the piece become more unified. Beginning in Section U, the saxophonist should remain in time but give way to the marimba as it fills in the rest of the saxophone line, as shown in measures 255-256 (see Figure 5.11).

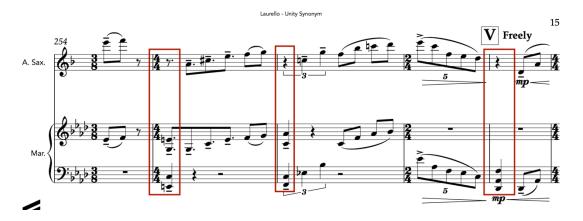


Figure 5.11 mm. 254-258. Interlocking metric modulations

The musical and visual interplay between each performer in Unity Synonym

creates an intense collaborative environment for both performers, providing a highly

engaging experience for the audience when done effectively. Laurello discussed the way

the piece engages the audience:

Just working with percussion in general, audiences understand someone hitting something. You can see it. And the same way, the piano. Okay, I see fingers down on keys. Sometimes, with other instruments it's not clear what's difficult and what's not, because you can't see it. I think the simplicity of how that operates is a little bit like the way this piece works. What you're saying, "Okay, they're playing together," is very easy. Any audience member of any experience level can understand that they're playing together. That tends to be very attractive to me, as far as the way that different pieces are organized. Is it an idea that is simple enough for really anybody to access it at any level. Whether you want to go really deep into it and analyze what's going on is optional, but [whether or not] the concept [is] accessible by virtually anybody is something that's very important to me.⁴¹

⁴¹ Andrew Hutchens and Michael Laurello, Unity Synonym Interview, personal, January 4, 2023.

CHAPTER 6

THIRD RAIL / REVELATION BY STEPHEN KARUKAS

| Year: | 2021/22 |
|--------------------|--|
| Duration: | 7' |
| Instrumentation: | Baritone Saxophone, Bass Clarinet, Marimba, and Piano |
| Alternate Version: | Baritone Saxophone, Marimba, and Fixed Media |
| Techniques: | Slap Tongue, Growl, Multiphonics, and Interlocking Rhythms |
| Publisher: | Stephen Karukas |

Stephen Karukas is a freelance composer based in Seattle, Washington. His work centers around the creation of layers using rhythmic tools such as delay, polyrhythms, and aleatory to create musical paradoxes. Karukas is a software engineer at Google with the Cloud AI team. He holds degrees from Indiana University (B.M. Music Composition and Percussion Performance; M.S. Computer Science).⁴²Karukas relates his conception of Third Rail / Revelation to the mechanization and technology inherent in urban life:

I wrote *Third Rail / Revelation* in Seattle in the summer of 2021. My primary interaction with most of the city was through public transit. Through this lens, the city to me was a symbol of freedom, but consequently of fear, whether from the subway racing by the platform at 50 miles per hour or from the very real terror, anxiety, or even ecstasy felt by another passenger whose violent shouting at an apparition brought their imagined reality to life. When writing this piece, the images that stuck in my mind were of the mechanical artifacts from an industrial age that persist into the present in our cities, as well as the ways in which rapidly accelerating technologies bring new anxieties into our lives.

⁴² Stephen Karukas. "Stephen Karukas Composition"

This piece was originally written for marimba, bari sax, piano, and bass clarinet. In the duet version with electronics, I used industrial-sounding prepared piano samples and noisy synths to reinvent these parts into a soundscape inspired by the gritty experimental techno that had served as a soundtrack to the bus rides I took between the International District and downtown Seattle.⁴³

Introduction

My collaboration with Stephen Karukas dates back to 2017. A percussion colleague and I were searching for a composer to write a piece for saxophone and marimba when we came across a string quartet that he had composed, *I Am Electric*. Our ensuing collaboration resulted in a fabulous piece for saxophone and marimba titled *It Flows*. The collaboration with Karukas on *It Flows* was so uplifting that it motivated the author to commission a second piece.

Of all the pieces included in this document, *Third Rail / Revelation* had the roughest path to conception. The project started amid the COVID-19 pandemic when chamber music performances were at an all-time low. I had initially requested a chamber concerto for alto saxophone and 12 instruments. Due to the pandemic, arranging a performance and producing a recording became nearly impossible. Because Karukas wrote so well for the instruments in *It Flows*, I suggested expanding the saxophone / percussion duo into a quartet. I had long envisioned commissioning a piece that played with the idea of instruments of similar timbres and ranges. Therefore, we pivoted to a quartet consisting of bass clarinet, baritone saxophone, marimba, and piano.

In early 2022, I approached Karukas about making an alternate version of the piece, for baritone saxophone, marimba, and electronics for my saxophone and

⁴³ Ibid

percussion duo project. This independent, secondary version of the piece allowed for increased portability, expanded saxophone and marimba parts, and the creation of a fixed time element. Karukas discusses the conception of the duo and electronics in relation to that of the original quartet version:

I think from my original conception of this piece, a quartet version almost seems wrong, because I originally was like, "Oh yeah. I love having these pairs of instruments." Especially the woodwinds just stepping over each other, especially, like, at 206, where it's the slap-tongue part. There, [they are] stepping over each other in range. I love things like that. On the one hand, it's a quartet. How do you turn it into a duet? It's already like a duo, but it was actually easier because of that fact because the parts were interlocking.

I found with the electronics, I could do a lot of things that I wasn't able to do with the instruments. Quite a few of the shapes of the electronic sounds are coming from nothing and getting really loud, which I think actually woodwinds can do pretty well, but on such a small scale the electronics are just able to go from nothing and just zip up to some sort of intense moment. And oftentimes, what they are zipping up to, what they are crescendoing to is some sort of hit in the instruments. I don't think I would have been able to achieve [these effects] with the instruments as well, like in the quartet.⁴⁴

Both the original quartet and duo versions of this piece were independently

funded. After proposing the idea of a quartet to Karukas, I polled some members of the new music community about their interest in a consortium of this instrumentation. This poll showed little to no interest due to the unique instrumentation and slim performance opportunities. The scope of a work of this nature is a prime example of a piece that does not lend itself to consortium funding. In 2022 when the duo and electronic version was commissioned, the author chose to fund the project independently rather than initiate a consortium.

⁴⁴ Andrew Hutchens and Stephen Karukas, Third Rail / Revelation Interview, personal, December 20, 2022.

Structural Motives

Third Rail / Revelation is a through-composed work that uses rhythmic and melodic motivic content, the simple chord progressions, and ostinato grooves to create the structure of the piece. As discussed above, the original version of *Third Rail / Revelation*, composed in 2021, is scored for bass clarinet, baritone saxophone, marimba, and piano; another version was released in 2022 for baritone saxophone, marimba, and electronics.

Both versions of *Third Rail / Revelation* center around the note G-Natural and the key of G minor. This centralized tonal structure provides a foundation for six motives that run throughout both versions in various forms, voices, and combinations. My analysis here centers on the use of these ideas. Motive 1, the *offbeat echo* (Figure 6.1), is the opening motive played by the baritone saxophone player.



Figure 6.1. Baritone Saxophone. Offbeat echo motive

This motive offsets the rhythm by one eighth note in order to obscure the metric qualities. To further this syncopated motive, Karukas notated, "Always bring out the bottom notes." This motive appears in various moments throughout both versions of the piece. In the quartet, the bass clarinet enters with the offbeat echo motive in measure 115, as shown in Figure 6.2.



Figure 6.2 mm. 115-116. Offbeat echo motive in Bass Clarinet (Quartet version)

Motive 2, the *5/8 groove*, is the most important transitional motive in the piece. In most cases, Motive 2 stabilizes the metric qualities of the already unstable *offbeat echo* or leads to a larger moment of the piece. Figure 6.3 shows the *5/8 groove* in the duo version of the piece at measure 32. This figure outlines the electronics' interaction with the saxophone and marimba lines.

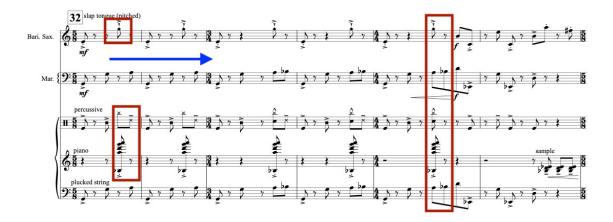


Figure 6.3 5/8 Groove motive. Duo. mm. 32-37

Motive 3, *disjunct sixteenths*, is a rhythmic motive in which the marimba has an exposed asymmetric groove with a central note of a G-natural. The *disjunct sixteenth* motive provides the clearest use of the centralized G-minor tonal center. After its introduction in measure 54, the motive takes on various forms with near-constant

integration with other motives. Figure 6.4 shows the *disjunct sixteenths* motive at measure 54.

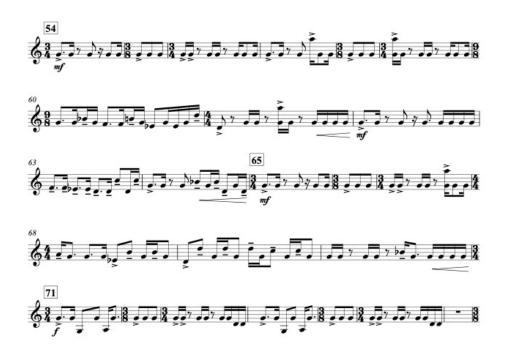


Figure 6.4 Disjunct Sixteenths Motive. Marimba part of Duo Version. Full motive, mm. 54-77

Motive 4, the *developmental groove*, is primarily used in larger scale moments of the piece either to develop or transition a section. The motive's initial entrance provides a groove to develop the *disjunct sixteenths* motive. Figure 6.5 shows the entrance of the *developmental groove* in measure 71 of the duo version as it interjects the *disjunct sixteenths* motive; Figure 6.6 is an example of a developed portion of the motive. Karukas expands the motive by combining the 3/4 + 3/8 metric phrasing into a 9/8 feel with an additive rhythmic structure. Figure 6.7 shows a portion of the *developmental groove* used in the piano in the quartet version.



Figure 6.5 mm. 68-72. Overlap of disjunct sixteenths and entrance of developmental groove motive



Figure 6.6 Embellished developmental groove motive. Duo version, Saxophone part, mm. 83-86



Figure 6.7 mm. 225-230. Developmental groove in piano line (quartet version)

Motive 5, *sixteenth note ostinato*, is a purely transitional motive occurring only in the marimba and piano parts of the quartet version and the marimba of the duo version. This motive, shown in Figure 6.8, is used to bridge melodic and harmonic material into new sections of the piece. Motive 5 also provides continuous sonic elements to support the surrounding material of bass clarinet and baritone saxophone (quartet version) or baritone saxophone and electronics (duo version).

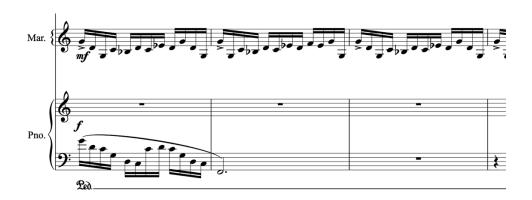


Figure 6.8. mm. 188-190. Sixteenth note ostinato motive. Quartet version

Motive 6, the *slap hocket*, takes on two roles depending on the version. In the quartet version, the motive occurs between the bass clarinet and baritone saxophone beginning at measure 198. In the duo version, these hocketed melodic lines combine into a continuous strand of notes in the baritone saxophone part. Figures 6.9 and 6.10 present the *slap hocket* motive in the quartet and duo versions, respectively. Karukas interjects several additional motives with this hocketed motive, such as the *disjunct sixteenths* and the *developmental groove*.



Figure 6.9 mm. 206-209. Slap Hocket motive. Saxophone and Bass Clarinet. Quartet version



Figure 6.10 mm. 220-224. Slap Hocket Motive. Duo Version. Interjections of ordinary notes

Performance Suggestions: The Quartet

The quartet version of *Third Rail / Revelation* can be broken down into a pair of duos. The bass clarinet and baritone saxophone lines correspond, interlocking and collaborating to form one portion of the score. Similarly, the marimba and piano lines form the second duo. This creates a cohabitation of duos that interact with one another to form a variety of timbral, textural, and technical layers.

The fundamental issue presented in the quartet is time. If performers do not establish a consistent pulse and play with great rhythmic clarity within the opening measures, the piece will not be successful when additional ensemble members begin entering the texture. In the opening measures, Karukas offsets the saxophone line by one eighth note, creating a motive that crosses the bar line, the *offbeat echo* motive. This syncopated figure (see Figure 6.11) is compensated for by the addition of downbeats in the bass clarinet. The baritone saxophone and bass clarinet must start and remain in time to achieve an accurate entrance by the marimba and piano in measure 8.



Figure 6.11 mm. 1-2. Bass Clarinet downbeats. Offbeat echo motive.

A primary example of these rhythmic issues across all parts of the ensemble is at measure 142. In this section, the marimba and piano begin to trade and interlock the *developmental groove* with the addition of a sixteenth note interjecting line. The saxophone and bass clarinet are playing dovetailed whole notes. Performers establish tempo for this section by the consistent eighth-note pulse of the interlocking marimba and piano line. However, in measures 148–149, the line is interrupted with the sixteenth-note figure (see Figure 6.12). Due to the timing variability of measures 148-149, the author found this section to be difficult to play accurately and in time throughout the entire ensemble. Although the bass clarinet enters before measure 150, the tempo should become reestablished with a clear downbeat at measure 150.

The saxophone and bass clarinet should use their entire dynamic range to collaborate and establish accurate dovetail figures. The figures should be exaggerated dynamic flares, covering the entire dynamic range and duration noted. Figure 6.13 shows the dovetailed dynamic flare figures in the baritone saxophone and bass clarinet lines.



Figure 6.12 mm. 146-150. Sixteenth note interjection prior to measure 150. Quartet version



Figure 6.13 mm. 151-155. Dynamic flares between Bass Clarinet and Baritone Saxophone. Quartet version

In measure 198, the bass clarinet and baritone saxophone begin to interlock in the slap hocket motive. The saxophonist should match the style of the bass clarinet throughout this section. Should one performer be unable to achieve the slap tongue technique before the performance, the performer should strive for articulation as close to a slap.

Karukas notates several multiphonic figures throughout the piece and suggests fingerings in the bass clarinet and baritone saxophone lines. The baritone saxophone fingerings come from Daniel Kientzy's *Les sons multiples aux saxophone*. Sarah Watts' book, *Spectral Immersions,* influenced the bass clarinet fingerings.^{48,49} Because the corresponding fingerings can yield varying results for different players, performers should experiment to find a multiphonic that works best for them and fits in the general structure of the written pitches. Notably, the multiphonics in this piece represent a form of psychosis that Karukas witnessed on public transit. Karukas discussed the conception of the section containing the multiphonics:

This section comes from an experience I had on a bus, where I was taking the bus from work to where I lived. There was somebody else on the bus who got on and I think they had some sort of episode where they were seeing some sort of demon or something, and they were shouting at it. They were really afraid of it. It was a really interesting moment for me because, of course, I was scared because this person was behaving abnormally. That feeling when you're just in a situation where somebody is just behaving not as expected. So, it was a scary moment for me, as it was for them. That inspired both the second part of the title as well as some of these shrieking sounds in these multiphonics.⁴⁵

Multiphonics should be as nasty as possible. It does not matter if they squeak or overblow; the elements only add to the intended effect. The author elected to couple the notated multiphonics with effects such as growling and flutter tongue to further enhanced.

^{48,} Daniel Kientzy. Les Sons Multiples Aux Saxophone, (Salbert, 1982.)

⁴⁹ Sarah Watts. Sarah Watts' Spectral Immersions, A Comprehensive Guide to the Theory and Practice of Bass Clarinet Mulitphonics, (Puurs-Sint-Amands, 2015)

⁴⁵ Andrew Hutchens and Stephen Karukas, Third Rail / Revelation Interview, personal, December 20, 2022.



Figure 6.14 Use of Baritone Saxophone multiphonics. mm. 131



Figure 6.15 Use of Bass Clarinet multiphonics. mm. 6-10

Performance Suggestions: The Duo

When performing the duo version of *Third Rail / Revelation*, performers should recognize the electronics as a third ensemble member. The marimba and electronics are

fixed instruments, meaning they cannot adjust elements such as pitch, sustain, and decay during performance. The marimba may change mallet hardness or softness to achieve heightened ensemble balance, but these changes do not affect the performer's direct control of pitch, sustain, or decay. The saxophonist must create a dialogue with both the marimba and electronics, matching the marimba's attack and sustain and the electronics' style. The author found that the best exercise to visualize the elements of the four parameters of the sound envelope (attack, sustain, decay, and release) was matching waveforms through frequent recordings. Performers are encouraged to record themselves on a digital audio workstation, such as Logic Pro. Performers should analyze the waveform against that of the marimba and/or electronic track waveforms. Figure 6.16 is an example of recorded waveforms of both saxophone and marimba where the sustain does not match; Figure 6.17 shows an example where the articulation of both instruments matches throughout the entire waveform. The author recommends performers utilize recording as a tool for aural and visual matching for all pieces that include multiple instruments, especially percussion. In many occasions the parameters measured within this exercise can be heard clearly by performers and audience members. The added aural and visual element of the exercise is meant to enhance the saxophonist's ensemble blend from all angles, as they must match all parameters of the marimba. Many times these parameters can vary slightly through mallet selection. (The author also used this exercise on other pieces examined in this document, including Unity Synonym by Michael Laurello).

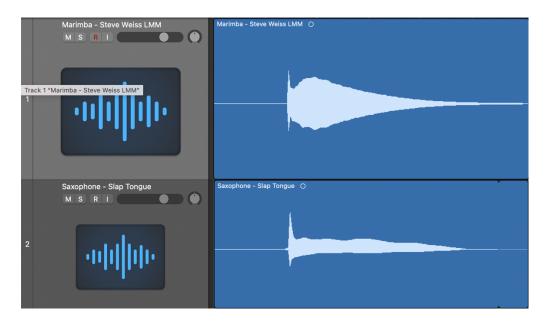


Figure 6.16 Recorded waveforms that do not match attack, sustain, and release

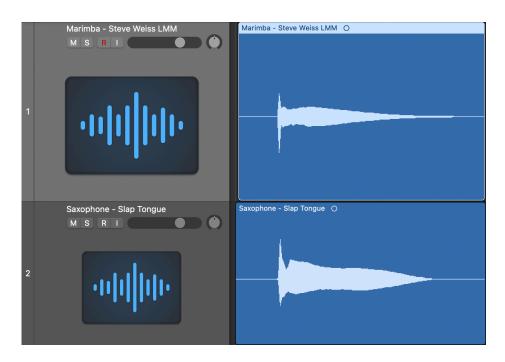


Figure 6.17 Recorded waveforms that closely match attack and sustain.

Several lines in the duo version have been expanded and/or lengthened to accommodate the redaction of both the piano and bass clarinet. Beginning in measure 18,

the expanded *offbeat echo* groove extends by incorporating bass clarinet lines from the quartet version. This continued groove eliminates all rests for the performer to breathe. If able, performers should maintain the groove while circular breathing throughout it. The author found that completing a circular breath between the ascending E-natural to B-natural interval provided the best, and most accurate, musical experience. Karukas made two notes optional going into measure 26 in case circular breathing is not possible for some performers.

The rhythmic motive in measure 220 is another example of the combination of parts from the quartet version. In this section, Karukas combines the bass clarinet and baritone saxophone lines from the quartet into one seamless line. Although Karukas did notate optional notes on Beat 3 of measure 225, this slap-tongued section continues 15 measures before the performer has a rest. The author recommends that the performer consider options to ease potential breathing issues. The saxophonist should avoid removing the optional notes, instead using them as emergency breaths. Removing this optional material breaks up the note grouping leading into measure 226. First, performers could consider adding quick breaths prior to the sixteenth notes in measures 226, 230, 232, and 237. This option must not affect the tempo and rhythmic structure of the part. Second, performers may use circular breaths in the sixteenth note slurs in measures 229 and 233. Selecting this option must not detract from the direction of the melodic line and primary accent on the downbeat of the following measure. Performers may also use a combination of both circular breathing and quick breaths which is the recommendation of the author.

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Karukas uses a variety of pitched slap tongue throughout the duo version of the piece. Performers should reference the surrounding material in the marimba and electronic parts to determine elements such as attack, amount of pitch, sustain, and decay. To facilitate these delicate changes in style, performers should strive to use the least amount of tongue possible when slap tonguing. On the baritone saxophone, increased use of tongue covering the reed could easily cause a delay in pitch production. Additionally, increased tongue when producing a pitched slap tongue requires an exponential increase in air. Considering the length of phrases that require slap tongue and ensemble continuity, it is imperative that the amount of attack be variable, and the production of pitch be immediate and controllable.⁴⁶ In measure 32, Karukas shifts the overlapped offbeat echo and developmental groove of the piece to the introduction of the 5/8 groove, led by the marimba and electronics. In the saxophone part, he notates "slap tongue (pitched)." This pitched slap comes with an effect in the electronics (see Figure 6.3, above). Performers should place more attack on this note while ensuring the pitches sustain does not outlast that of the electronics. In measure 198, the saxophonist begins playing continuous strands of slap-tongued pitches through measure 242. Although these are written as "pitched slap" throughout this section, performers should focus more on the attack of the slap tongue to create a stable rhythmic effect. Slaps should contain as much pitch as possible without causing issues in tempo and/or ensemble blend.

Karukas begins to introduce non-slapped notes in measure 222. These ordinary, or non-slapped notes, aid in outlining a macro-melodic line that corresponds with the

⁴⁶ Matthew Jeffrey Taylor, "Teaching Extended Techniques on the Saxophone: A Comparison of Methods" dissertation, University of Miami, 2012, https://scholarship.miami.edu/esploro/outputs/doctoral/Teaching-Extended-Techniques-on-the-Saxophone/991031447664002976.

electronic track. Performers should perform these notes as fully as possible to counteract the crispness of the slap tongue. If performers use too much tongue while slap tonging, the transition between pitched-slap tongue and ordinary articulation will be difficult to achieve. Figure 6.10 shows the transition between pitched slap and ordinary tonguing in measure 222.

Electronics Setup

The electronics for *Third Rail / Revelation* are fixed -- or predetermined and not subject to outside influence, including processed sounds or real-time triggering. Due to the interplay between parts and ensemble structure which requires a delicate balance, *Third Rail / Revelation* does not fall into the "plug-and-play." This section suggests only one electronics setup applicable to *Third Rail / Revelation* and any fixed media piece with a click track. There are many ways to set up fixed electronics, varying by case. The following setup is what the author found to be the most successful when performing *Third Rail / Revelation* and other fixed media pieces with a click track.

To create an effective setup for fixed electronics, any performer needs some form of digital audio workstation to effectively route the performance and click track to separate locations. The author selected Ableton Live due to its live performance and routing capabilities, yet any digital audio workstation, such as Logic Pro or ProTools HD, will work. Performers will also need to interface between the computer and speakers, perhaps with a mixer or an audio interface. Both devices will take the digital signal from the computer and convert it to an analog signal that can be processed through speakers. Performers should select an interface with fixed media with at least four outputs.⁴⁷ The author used a Focusrite Scarlett 4i4.

The main stereo output to the speakers will often occupy Outputs 1 and 2. Performers need two additional outputs to route an in-ear stereo click track into their ears. The author used a Focusrite Scarlett 4i4 with dual wireless in-ear monitors (IEM), such as the Shure PSM300 Twin Pack Pro, to route the click track back to the performer's ears. These IEMs use a fixed frequency of FM modulation to transmit signals at extremely minimal levels of latency,⁴⁸ providing freedom for both performers to move around on stage without the hindrance of cables. An alternative to a dual IEM is headphone extension cables that run directly from the interface. With this method, the headphone mix would be in mono, not stereo.⁴⁹ Figure 6.18 shows the stage layout used by the author when performing *Third Rail / Revelation*.

Third Rail / Revelation comes with various WAV tracks: click only, track only, track and click, and a collection of practice tracks. Figure 6.19 shows the configuration and routing of the author's Ableton Live Session, which controls both the main output and in-ear mixes.

⁴⁷ Matthew G Jordan, "Performing Live with Electronics: A Percussionist's Guide to the Performance Practice of Electroacoustic Percussion Music" dissertation, 2018, https://diginole.lib.fsu.edu/islandora/object/fsu:661150.

⁴⁸ Bill Gibson, "Wireless Systems," essay, in *The Ultimate Live Sound Operator's Handbook*, Third Lanham: Rowman & Littlefield, 2020, 205–22.

⁴⁹ Matthew G Jordan, "Performing Live with Electronics: A Percussionist's Guide to the Performance Practice of Electroacoustic Percussion Music" dissertation, 2018, https://diginole.lib.fsu.edu/islandora/object/fsu:661150.

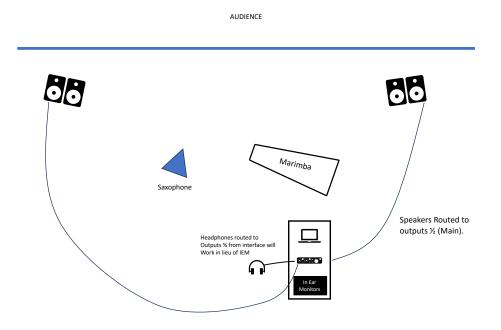


Figure 6.18 Stage and electronic layout for "Third Rail / Revelation"

| | Revelation [ThirdRail:Revela | ation] | | | | | |
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| 1 Third Rail _ Revelation [track, stereo] | 2 Third Rail _ Revelation [track, stereo] | 3 Third Rail _ Revelation [click, stereo] | 4 Third Rail _ Revelation [track+click, stereo] | A Reverb | B Delay | Master | |
| Third Rail _ Revelation [128 bpm, track | Third Rail _ Revelation [128 bpm, track | Third Rail _ Revelation [128 bpm, track | Third Rail _ Revelation [128 bpm, track+click, | | | • | 1 (|
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| Master | Master | 4-Third Rail Revelation [track+click, strv | 3-Third Rail Revelation [click, stereo] | | | | |
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Figure 6.19 Ableton live routing with click track for "Third Rail / Revelation"

Outputs 1 and 2, routed to speakers, contain only the stereo track mix. Outputs 3 and 4, routed to the IEM system, contain the track and click mix. Performers may also add the click-only mix into Outputs 3 and 4 to boost the click presence. Once routed in the digital audio workstation, performers should reference the routing in their specific interface control software. Because the author used a Focusrite Scarlett 4i4, the interface control software was Focusrite Control. Figure 6.20 shows the correct interface routing of Outputs 3 and 4 in Focusrite Control.

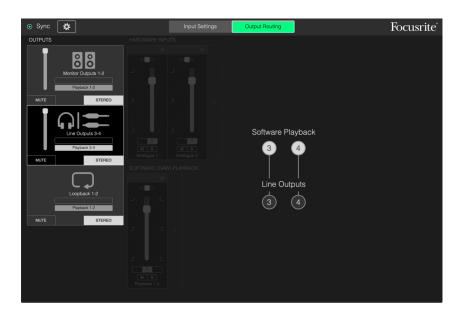


Figure 6.20 Focusrite Control output routing for click track

Conclusion

Commissioning new works for any instrument pose intense challenges for performers beyond that on the score. Performers undertake a binding legal agreement when commissioning any form of music. The creation of new music is an imperative part of the sustainability of today's musical economy. The four pieces included in this document represent a direct effort to create collaborations that produce works and case studies attainable to all levels of students and educators. From the connection of pitch and time within *At the Seams*, the narrative driven structure of *Intrepid*, the intense unison techniques in *Unity Synonym, and the* variety of motific cohabitation in *Third / Rail Revelation* any saxophonist aspiring to play this music will greatly benefit from these pieces. The author encourages all performers to continue, or start, the creation of new music. Vast personal and musical rewards await for all those who attempt this music or commission new works of their own.

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APPENDIX A

INTERVIEW WITH BALJINDER SINGH SEKHON, II

Andrew Hutchens: What other pieces have you written for saxophone?

Baljinder Sekhon: Gradient, Song of Change (solo alto), Sonata of Puzzles, Gradient 2.0, The Offering, Secret Corners, Trailing, and other chamber works that include saxophone (like stopping the world). Currently completing a sax quartet for capitol quartet.

Andrew Hutchens: What do you find interesting in the capabilities of the saxophone?

Baljinder Sekhon: Both the instrument and the community of players interest me. The community is open-minded and generally excited to explore new literature. The saxophone is flexible in range, dynamic, articulation, and timbre. I find the acrobatic nature of the instrument to be liberating as a composer.

Andrew Hutchens: How does this compare or contrast with other instruments?

Baljinder Sekhon: Communities with a deeper "classical" history don't tend to be as excited about new literature as the sax community. Also, with regards to everything I mentioned above I believe the saxophone to be superior to most instruments.

Andrew Hutchens: What do you define as your compositional style?

Baljinder Sekhon: I don't. Each piece is different. I love all types of musical styles and one exciting thing about composing for me is exploring new languages, styles, and techniques with each new work.

Andrew Hutchens: Lets jump to *At the Seams* now. This piece relies on the relationship between pitch and time. Can you explain this concept and the theory behind it

Baljinder Sekhon: I think I can explain it to you pretty easily, but I think that part of what's needed is a baseline of knowledge of something called the time-point system.

Andrew Hutchens: Okay.

Baljinder Sekhon: Because the time-point system is a system that essentially says that there's a correlation between intervals and pitch space, and attack point in time, that the distances between those things have a correlation, that they're isomorphic, that they can be mapped onto each other; That I could say, "Oh, this thing is three semitones apart. This pitch is three semitones apart from this pitch. Oh, and this attack is three sixteenth notes apart from that attack in time." So, there's a structural correlation between pitch and time. And that system is called the time-point system that was really first described by Milton Babbitt in 1955, and later explained a little better by Charles Wuorinen in a book he has called "Simple Composition." But that system is the system that I've, through several pieces, developed further, that I'm using aspects of that system. And again, the system really is a structural system that controls pitch and rhythm, but not separately. It controls them together.

And without getting too much into the history of it, this is something that we can see in music that has existed subconsciously for a long time. For example, in a classical era piano sonata, you might see that there's a diatonic scale, and maybe within that diatonic scale ... Let's say it's eighth notes, which would make sense. F, G, A, those three notes are a whole step apart, and so they could be an eighth note apart in rhythm if every half step is a sixteenth note. But if I'm playing a diatonic scale in a classical sonata and I have a chromatic passing tone, we usually see the chromatic passing tone appear as a sixteenth note in between those two notes. So, when the interval gets smaller, the rhythm gets faster.

And so, this kind of idea that if I map sixteenth notes onto half steps, I could have a chromatic scale represented as sixteenth notes in rhythm. So, I have two different realms here, right? I have the realm of pitch and the realm of time. And what happens in the realm of pitch affects what happens in the realm of time so that these rhythms are all the rhythmic equivalents of these pitch collections, and vice versa. I might start with rhythm. I might go (clapping). If I take that rhythm, and I say, "Oh, that's an eighth, sixteenth, eighth. Okay, that's an octatonic scale in pitch. Whole step, half step, whole step, whole step, whole step, "(Clapping).

So that there's an equivalency to be found between ... It's a structural equivalency to be found between intervallic distances and pitches and attack points in time. So Puzzles works that way, Gradient works that way, this piece works that way in a more interesting way I think. This is something I've been exploring for a long time, but what I thought about, and this will make a lot of things click right away. What I thought about when I set out to make this piece was, "What's some aspect of the time-point system that I could explore structurally in this new piece that I haven't done before, but also that I haven't seen somewhere else?" Well, usually we're dealing with periodicity when we're dealing with time-point music. There's a pulse that's pretty steady, and things fall somewhere within that grid.

Andrew Hutchens: Yeah

Baljinder Sekhon: What I was interested in was what if the pitch material could control ... Could bring a sense of slowing down and speeding up based on the intervals. So if the intervals go from being smaller to bigger, the music's going to slow down. If the intervals go from being really big to small, the music's going to speed up. And then what if there's

combinations of these things? And so then you get stuff like that falling apart section of the piece, where you're ritardando is going, and you follow ... Slowing down, but the intervals are getting bigger the whole time. So, the pitches are dictating the music slowing down as this happens.

Andrew Hutchens: And I bet that has something to do with the dynamics, too.

Baljinder Sekhon: Yes. So, energy ... All of this brings about a certain kind of energy that either lends itself to being louder or being softer or something that's trying to break through, like a low note that keeps repeating. It's trying to remind all of the other pitches that this is where the time is at, you know? So, let me show you ... If you don't mind, let me just show you something here (Figure 3.2).

Andrew Hutchens: Yeah.

Baljinder Sekhon: So, here is our A-flat, keeps repeating right here, right? And this is in C, right? So, that's your B-flat.

Andrew Hutchens: Yeah

Baljinder Sekhon: And so, this is going to get to your question about why that pitch is *central. So what happens in this ... This little collection of pitches is essentially a series of intervals that revolve around the A-flat. So, it goes A-flat, goes up by a tritone, then back down to A-flat, then down by a perfect fourth, up to A-flat. So, it got smaller. Up a major third, down. Down a minor third, up. Up a major second, down. Down a minor second, up. So, the intervals are closing in on this A-flat. Everything is revolving around the A-flat, sort of spinning around it, but getting tighter and tighter.*

Andrew Hutchens: It just gets tighter until the "phrase" ends.

Baljinder Sekhon: Yeah. Right. It runs into itself on the two eighth notes. I call that pitch collection number one, with an up/down contour. It goes from the largest intervals to the smallest intervals. The contour goes up, and then down, up, and then down. Instead of starting down and then up, which would give us something a little different pitch-wise, right? So this is the up/down collection, large to small.

There are four collections like this. The second collection is the same thing (Figure 3.4). It starts on an A-flat, but this goes down and up, and it goes from smallest to largest intervals. So, we get the minor second first, then we get the major second, then the minor third, the major third ... So this one's growing, so the rhythm is slowing down. And so what's happening here is every half step in this system is equal to an eighth-note. An A-flat up to a B-flat back down to A-flat is three quarter notes. Now, minor third is a dotted eighth note. The major third is a half note. Then we get a half note plus an eighth note, perfect fourth. Tritone slows down. So, the pulse stays, but the rhythm slows down around it, right? And so the pulse is kind of like that A-flat. And the rhythm around it is like the intervals getting bigger and smaller. So, that's number two.

Number three is going to be down/up but going large to small (Figure 3.5). So, it starts going down with the tritone, whereas the first one started going up with the tritone. So, those pitches are going to be the same, right? The tritone up or down around any pitch is the same pitch, but then the resulting pitches are going to be different. So, we go up, we have a D-flat. Okay, so a perfect fourth, then down. So, that's this little pattern. These are just little patterns, and what they do is they yield a little rhythmic string, They yield a little pitch string, and they yield a little rhythm. The rhythms are either going to slow down, or they're going to speed up, depending on whether we're going from large to small or small to large intervals because the larger intervals are pitches that are further apart. So, they have slower rhythms. They have more space between the attacks of the rhythms. So, you see right here I wrote, "TP." That stands for time-point. So, here's the time point. That's what I'm telling myself as I am designing this. Here's the time point rhythm of that pitch collection.

Alright, so the fourth one is the only combination that's left, which is the one that goes up/down contour, small to large intervals (Figure 3.7). From A-flat, A-natural, A-flat, G-flat, A-flat. B, A-flat, E, A-flat, D-flat, A-flat, D-natural, A-flat. Ends with the tritone, and it gets slower. That's the four building blocks of this little piece.

Andrew Hutchens: This makes much more since.

Baljinder Sekhon: But they all are also expressed as a palindrome. So, if I take this first one, and then I do it retrograde. So, it says here, I wrote. I said, "Repeat it backwards." After you get through that, repeat it backwards, right? So then, this is the entire pitch material. When it gets to the end, it's like a pivot, right? It goes backwards through all the pitches. So, this is just a palindrome.

Now, below that is the time point of the entire thing. And so you can see me now starting to compose the piece, where I wrote the rhythm out but underneath the rhythms I wrote the pitch names. Slowing down. And those are the accents for the whole opening of the piece.

Andrew Hutchens: Yeah.

Baljinder Sekhon: And the accents are on those exact pitches, right? The pitches that they get mapped onto through the time points. Just that little bit of stuff is a little complicated, right? So, these four collections right here are the building blocks of the whole shebang. There are four collections that each have their own rhythm, but one thing that's interesting about it is that the ones that start with a tritone have the same rhythm. So, number one and three have the exact same rhythm, because the interval pattern's the same tritone, perfect fourth. Even though they have different pitches, because the contours are different. This one goes up, that one goes down. But these rhythms are going to be the same rhythm.

It's really interesting to me from a structural standpoint to say this string of pitches and this string of pitches are different. They have the same correlated rhythm, because the interval content's the same. And that was something that I just kind of stumbled upon.

And so that's the beginning of designing the piece. And then I have those things and it's like, "Oh what do I do?" What do I do with them? It's pretty cool that the pulse stays the same, but the music around the pulse slows down, just like having a pitch that's the same, like an A-flat, but the intervals around the pitch get bigger or get smaller.

And so, the other thing to say about this is that those time-point strings that I was just showing you, they map the eighth note to the half step, but you don't have to map the eighth note to the half step. You can map a quarter note to a half step if you want to, and then you're going to end up with something really wild.

Andrew Hutchens: Can you describe the ending of the piece in relation to the interaction between both lines?

Baljinder Sekhon: So, this is the quarter note. It's the same thing, but it's slow, right? This is the ending of the piece.

Andrew Hutchens: The ending is one of the more challenging portions of the piece collaboratively because there is no sense of pulse.

Baljinder Sekhon: Yeah. There is a tempo, but there's no pulse. Periodicity goes away, right? That's what you noticed. And the reason is because It's using this string of pitches, one and two, but it takes the A-flat out. And so you don't find the A-flat anymore. The A-flat, which everything was central to, is the thing that was keeping it pulse-oriented. And when the A-flat's gone, the rhythm disappeared. The sense of downbeat disappears, because the anchor of the piece is not there anymore. It just sneaks back in. And it also has this sense of finality at the end, which is interesting because it's the pitch that we haven't heard in a long time in the piece. Comes back.

Andrew Hutchens: It feels final. But it also feels like ... Because we haven't heard it in so long, it feels like it has more to say, in a way.

Baljinder Sekhon: Yeah.

Andrew Hutchens: So, it's a really neat ending when you understand it.

Baljinder Sekhon: Yep. So, one thing I found in my notes when I was looking through them I kept writing down the words, "presence," and "absence." That was something that was on my mind. I was thinking about presence and absence. And the difference between the things that are present and things that are absent, and some things that are absent and you know they're not there and you wish they were. And some things that are absent that you don't know are absent. You don't know they exist, maybe, or you've forgotten about them. And when that A-flat disappears in the piece, and what's left of the things that are floating around it, there is an absence. There's an absence that's felt in the piece. Something is empty. It's almost a sadness kind of emptiness.

Andrew Hutchens: Then you've also told the performer to go behind, turn into. Is that because the A-flat goes away? And you're trying to make the absence amplified?

Baljinder Sekhon: Yeah, there's a couple things. There's three things that were on my mind there. One was I had this idea at first, which I semi-followed through with, which was that the performer was looking for something in the music, like something was missing. Part of my idea of visual was the performer going somewhere. My first idea was, "Oh, the performer is going to go look somewhere for something, and we don't know what they're looking for, but we can feel that that's missing." That's one part of it, is like, "Hey, you're looking for something." But then yeah, that absence of the performer, where they usually are, they've also disappeared. But they're last thing is like, "Hey, I found it." And here's the A-flat, so it completes things a little bit.

But then there's a third thing, which is that I was thinking about... The thing about the seams of the piece, is that the piece is always living at the seams. At the seams of what, though? So I was picturing these two fabrics. One is pitch, and one is time, and you're sewing them together. And then you're undoing them, and you're sewing them together again, and you're undoing them again. That's what all of these little things are like stitches, right? You're stitching it together, and then you're taking it back apart. So, it's getting closer, and it's coming back apart again. So there's a breathing that's happening also.

But part of my visualization of those two realms is one of them is on this side of the piano, and one of them is on this side of the piano. So you're going to a different place. You're going to a different ... I was thinking of them like dimensions. The dimension and the dimension of pitch. You actually go to the other side. You go to another place that you haven't been in the piece, and you discover something there, and it's time. And the A-flat is sitting back there, or sitting in the piano, whichever one the performer decides to do.

So it became less important to me, actually, that the performer went behind the piano and more important that they just went somewhere else. It could be just turning around to the piano, it could be going somewhere else. They could leave. But the point was that they were looking for this thing that's missing, and they find it.

Andrew Hutchens: I mean, I think that a lot of us ... I had that image in my head because ultimately that starts in a section of the piece that is drastically different than the rest, with the flourishes. But one of the main things that myself and probably a lot of the other performers of this was considering, when making that choice, was how is this going to affect the timbre of whatever I'm doing and am I going to make the right color change? Because when turning into the piano, I'm going to get a lot different color than going behind the piano. So, when doing this, were you thinking of a specific timbre that you were looking for? Or was it just the separation?

Baljinder Sekhon: Well, I was thinking of the timbral change. I combination of darkness and distance. It's already a dark kind of instrument, and by not directing your playing towards the audience, by even just turning around or by going behind the piano, there is a filtering that takes place. So, part of that has to do with sound, but part of it also has to do with the perception of it. As an audience member, seeing someone do it already changes psychologically what this is that's happening. The change in the timbre is amplified by the visualization of the thing, by the visual aspect of it.

Andrew Hutchens: I recall us having several discussions about the notation within this section. Specifically, how to interpret the flourishes and trills. Can you describe these flourishes and how a performer should interpret these from a notational perspective?

Baljinder Sekhon: Yeah, so I'll preface this by saying that something I tell my students all the time is the worst thing about composing music is having to write it down. I always say, "Well, if I didn't have to write down my ideas, it would be better." They get ruined. They become quantized or square when I have to write them down, because in my head I hear something going a very particular way and it doesn't always abide cleanly by the notation system that we have at our disposal, which is why some people go into indeterminate notation or text-based notation or other types of music notation, picked a graphic notation.

I'm not the kind of composer that does that unless I need to. Usually I try to make things fit into the western standard system of notation that most people know, because I also have a performance background, and I try to be performer-friendly. Clearly that doesn't always work, because my ideas don't fit into that.

So, a couple of things about the flourishes. I wrote a piece called Compass, that was for viola and percussion duo, and I wrote it for John Graham, who was then the viola professor at Eastman. I was supposed to premiere it with him. I did premiere it with him. But we rehearsed a lot, a lot more than what I was used to rehearsing. John Graham had this philosophy that basically said when you go on stage to perform piece, if it looks like or sounds like you're doing anything other than improvising, then you haven't rehearsed it enough. And he said, "We need to get this piece to the point where everyone's convinced we're just making it up, that we're not reading music, that we're not counting, that we're just making up stuff as we go along, that it needs to be really fluid." I really like that idea. I really like the idea of knowing something so intimately that it just seems like I'm improvising. I think about that when I write.

The sections with the flourishes is one of the sections where I was thinking about that. I didn't really want the performer to worry too much about the details of that section of the piece, like counting and stuff like that. It was just kind of something that happened, but then it turned out everyone worried about it more than the other sections.

Andrew Hutchens: I agree that many times the notation gets in the way. Especially bar lines. This section definitely has the improvisatory quality to it.

Baljinder Sekhon: So I thought, "Well I want them to do these little …" Nonchalant gestures. I was thinking of effortless flourishes. And these will be the pitches that they use. And the thing about the trill is that it mucks it up. The trill, rather than just going up and down, which some of them you have to do that for, but the idea that it's fluttering the whole time. It's unsteady, to me, it helps free it from this sense of control, from the sense that you're trying to do it. I've said to other people, "Well, it's not really supposed to be anything. You're just playing a trill, and it starts to float away, and it comes back. It floats away really far away, and comes back, or just floats a little bit and comes back." That it's not supposed to be precise.

Andrew Hutchens: I agree. The addition of the trill definitely adds an element that creates not only a technical challenge but a challenge of clarity within the music. In the end, I just ended up just playing what was written with a heightened emphases on note groupings and the trills.

Baljinder Sekhon: Yeah.

Andrew Hutchens: It is very quick so having the focus on the trills seemed to create the improvisatory feel that you are speaking about.

Baljinder Sekhon: Yeah, the tricky thing for me is that there is a piano there, too. If it were just a sax solo piece, it would have been different to notate that.

Andrew Hutchens: Yeah.

Baljinder Sekhon: There are two things that were important. One, the pitches did matter. It's not like you're going to improvise the pitches. It needed to be these pitches. And I should say something else. The pitches are being pulled away, like there's a gravitational pull from this trill. So, you have this trill that is the center note of the piece, right? And the pitches are being pulled away from it as if they're being stolen from it or leaving it behind. And in fact, they do leave it behind, and the end of the piece, that pitch is gone. All the way to the very end, where they find it behind the piano or somewhere else. But that image of these pitches being pulled off of this structure, almost like a universe separating or something. It's that stretchiness of it is where I was thinking there can't be pulse here. It just needs to pull off of it and go back and pull off of it and go back.

Andrew Hutchens: I agree. In the closing section the piano comes back with this flourish. That was the tricky one, because we ended up playing it two different ways, because ultimately the ergonomics of the saxophone are a lot different than what the piano can do.

Baljinder Sekhon: Correct. The thing is there's a fine line between the performers wanting to be told what to do ... On the other hand, me wanting them to do what they're told to do during this part of the piece, but in this part it doesn't matter. Just let it go. Come out. And that's hard to reconcile. Andrew Hutchens: Once you conceptualize how this works and the style of the flourishes, the fundamental issue becomes knowing exactly where to start and stop the flourishes in time.

Baljinder Sekhon: Because of the pianist.

Andrew Hutchens: Everything between that just happens.

Baljinder Sekhon: Yeah.

Andrew Hutchens: It's ... Even amongst all the notational challenges, that aren't really a thing once you dive into, you begin to understand that the piano is the most important thing, that those little two beat, one beat, however long, they amplify this theory going through the whole piece. "Okay. We're breaking apart here. It's splitting the seam for a minute," but then it's sewn back together for moment before it happens again." It's this moment where you're super scared, but then you have the feeling of relaxation.

Baljinder Sekhon: Exactly

Andrew Hutchens: You have a lot of experience doing both consortia and independent funding things, plus you are a co-founder of the Global Premiere Consortium. As a composer, can you talk about the benefits and drawbacks of consortiums?

Baljinder Sekhon: It depends on the piece, the circumstance, the community, and the person. I really like working with soloists, and that doesn't mean I like writing solo pieces, but I like having a person who's the lead or the person I work with. In a traditional commission model, if it's an ensemble piece, well that's the conductor of the group. That's your collaborator. If it's a concerto, it's probably the soloist of the concerto. If it's a piano and instrument piece, it's probably the instrumentalists that you're working with the most.

In a traditional consortium model, you have one person in your mind. There's one person that you're thinking about. When it's a model like this one, like a consortium model and there's thirty people involved and you see the names, and some of them you know who they are, some of them you don't, you might go watch videos of them play. I did. I looked up everyone who I didn't know who was on the consortium. I want to watch them play, because it's a much bigger challenge to write a piece that somehow fits thirty people, than it is to write a piece for one person that maybe nobody else will get, you know? Part of it's a responsibility, as a composer, we want to have the freedom and do whatever we want, be creative, every composer would say that. In the end, what I do isn't just for me. I don't compose music for me. I compose music for people to play it, for people to listen to it.

My first step away from myself is the performer. In this case, in a consortium case, it's performers. That responsibility to the performer is much greater in a consortium commission, at least I feel that it is, than it is in a traditional model because I'm

responsible for writing a piece for all of these people. I want them to play it. I want them to be able to play it. I'm not very good at that part.

Andrew Hutchens: It's really great to hear you say that. A lot of times when I was younger, I joined a consortium just to get my name on it. That is no longer the case. As a consortium lead it's always great to find a way to show members that they are more than just a spot to meet the consortium fee.

Baljinder Sekhon: Well, that's part of the thing of looking up the people, is the first question that I had was, "Well, what level are all these people at? Are there a bunch of undergraduate Music Ed majors joining this thing, or are they all professors? Are they DMA students?" Which DMA student, a professor, pretty much the same level of writing. So, clearly, I didn't write an easy piece, because I knew these people were all very good. But then the other part of it was this isn't my first saxophone piece.

Andrew Hutchens: The consortium members should also know what they are getting into.

Baljinder Sekhon: Yeah. What pieces of mine have these people played? I can look at a list and pretty much know ... Oh, that person played Gradient, that person played Puzzles, that person recorded Gradient. Whatever it is. I know the difficulty level of those pieces, so I can know where this should sit. And all this stuff like music structures that I'm designing, I'm not thinking about difficulty at this point in the composition. I'm not looking at this, saying, "Oh, this is going to be difficult," or, "Oh, this is too easy." The gauging of the difficulty comes towards the realization of the musical structures for me.

Andrew Hutchens: Yeah.

Baljinder Sekhon: Okay, I need to make it this difficulty, and it needs to be for that instrument. This is really a tenor saxophone piece. This isn't a piece that you could play on bassoon. This isn't a piece that would work on, really, another saxophone. This is a piece for tenor sax.

Andrew Hutchens: I think that the difficulty level is super relative, because we could say that this piece is technically not very difficult, but the musicianship requirements are extremely high.

Baljinder Sekhon: correct.

Andrew Hutchens: So, when people ask for a very hard piece, that is very relative to a composer, and whatever you want. So, the fact that you're going through and being very tedious about not worrying about difficulty and worrying about who's in there and what the foundation of the piece is before we go in there. That is very, very great to hear. I think more people should do that, definitely.

Baljinder Sekhon: Yeah, the thing about writing a piece that's just whatever I want to do without regard for difficulty or style ... I do that. Those aren't commissions, those aren't pieces I have responsibility to someone in.

Andrew Hutchens: What was kind of interesting about our work together was that I did not approach you with many guidelines at all. I knew I wanted the work to be part of my dissertation but I wanted you to come up with some things that you wanted to do before we started talking. So, why did you end up wanting to do tenor sax and piano? Because I know you had some reservations at that time about wanting to write for saxophone again.

Baljinder Sekhon: Yeah. I have this problem where people commission a piece from me, they want the same piece I already wrote. This happens with any composers who have one piece that gets played a lot for an instrument, and then other people from that instrument say, "Hey. We want to commission a piece from you." And they want, really, that piece again. My piece Gradient is a piece that everybody seems they want me to write that piece again, or something. But also, I'm always confronted with the mystery of the expectation is from people. But then the second part of it is, I have Gradient, I have the percussion ensemble version, 2.0. I have Sonata of Puzzles, I have The Offering. All these pieces are alto saxophone. Well, The Offering, the third movement is soprano. I have this sax quartet and electronics piece. I also have a piece called Colors of Light that's alto sax, concerto for band. So then my saxophone writing had been surrounding alto sax, and I just burned out on doing that.

So after we first talked, and I was not really wanting to do that, I was just thinking about, "Well, what do I have? What can I do to contribute to the saxophone community that's not just more of the same stuff?" And I had been aware of the tenor sax repertoire being kind of thin. I knew that there was a Stacy Garrop commission that recently happened for tenor sax. I remember someone commenting to me, "We don't have any tenor sax music," or "There's very little tenor sax music." So there's that. That came in my mind. I was thinking about that. But also I had been a big fan of the tenor sax. I actually knew tenor sax sound before I knew the alto sax sound, intimately, from my time ... Actually, in my time in South Carolina, there was a jazz place called "Speakeasy." Maybe it's still there. And there was jazz every Monday night, and Friday night, and Saturday nights. And I went every time, and Robert Gardner, you probably know ...

Andrew Hutchens: That sounds very similar to either Chayz Lounge or Pearls Upstairs here now

Baljinder Sekhon: Robert Gardner was running those gigs at the time, and there was a guy named Rudy Rodriguez in town, who is a tenor sax player. Rudy was really great. And Rudy and Robert would always play tenor. And of course, we're talking about jazz. We're talking about jazz stuff, not classical. But I really loved listening to the tenor sax, the color of the tenor sax, even with a jazz mouthpiece. This is a really nice instrument. I had that sound in my ear for a while. And so, it just dawned on me, like, "Yeah. Why don't I write a tenor sax and piano piece? I love that instrument, and they need pieces." And I think that's when I then proposed that to you or something. Or the other way around.

Andrew Hutchens: Yeah. I had experience with *Gradient*, *Sonata of Puzzles*, *The Offering*. All tremendous pieces and additions to the saxophone community. I don't think I walk into any commission with any expectations anymore. What really drew me to you was the style you write in and the depth within each one of your pieces.

Baljinder Sekhon: yeah

Andrew Hutchens: That's one of the reasons I experimented with such minimal guidelines entering into this project. I really wanted to give so much freedom to create what you were passionate about at the given moment. I wanted to know exactly what you were interested in. We talked a lot, and you said "I don't know if I can do this." I'm really glad that you came back with this. I think it turned out fabulous. I think it is a great addition, and it's exactly what the community needed. And as soon as it becomes open the public, a lot of people are going to enjoy it.

Baljinder Sekhon: Yeah. I'm really happy with the piece.

APPENDIX B

INTERVIEW WITH RUSSELL WHARTON

Andrew Hutchens: What was your influence behind the piece?

Russell Wharton: Well, let's see. So, writing for any instrument, I'm always trying to consider why write for that given instrument. Why write this piece specifically for saxophone? Or why write a piece for percussion? I'm trying to be better about using the instrument's strengths, especially as I grow as a composer. For me, what a saxophone does that percussion can't do in the same way is have long, lyrical, expressive lines. The saxophone has a very human voice-like quality to it. The sci-fi story narrative that I discuss in the program notes is a base, but I really felt like the saxophone has a way of capturing the quality of "the individual," like an archetypical standpoint. All throughout this piece, I was thinking of the saxophone as a "protagonist," really just representing an individual human being. I tried to make that come through in the narrative, and the different moods we're creating. That was probably the biggest thing, is just the expressive, human quality of the saxophone.

Andrew Hutchens: The way I found my way to you was through your percussion music. When I reached out to you, I didn't really have a lot of guidelines for you, other than liking your electronic writing, and wanting a piece with electronics. What made you want to take on the piece, not having written for saxophone before?

Russell Wharton: Yeah. I thought it was a fun challenge. It was cool and I appreciated you asking me. I just found the challenge exciting. It was a different sort of workflow for me. I think you specifically referenced my piece Metro and Kingdoms. Those were the ones that led you to ask me to write this. So, when I was writing this, I'm like, "Okay. I guess can put it in that style," which that style of electronic writing is very on rails. You're playing to a click track. There's a lot of it that's supposed to line up exactly. It has that ... I just call it an "on rails" quality to it. It also was cinematic, I guess. Both of those pieces, Metro and Kingdoms, I was writing for something that my mom would enjoy. Some of it is not super deep, or I'm not trying to get as complicated as I can harmonically. I'm not trying to make myself look like a really fancy composer, I'm just trying to write something that I think is accessible and I like the sound of, and other people will like the sound of as well. I hesitate to put it this way, but there's a little bit of a "popcorn" quality to it, that I was excited to embrace when it came to this piece. Now it's got this whole Science Fiction narrative.

You gave me some guidelines, and I can't remember if you mentioned Sci-Fi, but you did mention Interstellar. You said, "I like that." My reaction when I saw that was ... I'm so

continually inspired by film scores, and probably Hans Zimmer more than any of them. My reaction was, "Andrew, it would be impossible for me to write something that doesn't sound a little bit like "Interstellar".

Andrew Hutchens: I do remember that, and I remember you talking about how *Blade Runner* made its way into everything that you wrote. That was full of irony, because at that time I had assigned my students to watch and make cue sheets for *Blade Runner*. Throughout all of this project, I didn't really give many guidelines at first to anybody. And you were like, "I need this. I need the structure. I've not done this before." And so we had this really, really great dialogue back and forth, to the point where you were like, "What software instruments can I go buy to help with saxophone?" And as we all found out, that MIDI saxophone is not great, but you were super willing to explore the saxophone's characteristics both acoustically and digitally, just to dive deep into this project. I found that to be really, really great, and the piece benefitted from it.

Russell Wharton: Yeah. It helped me to be able to get a clearer mockup. I mean, I know it doesn't really sound like a saxophone, but I was able to get a mockup where it wasn't distractingly bad.

Andrew Hutchens: In your program notes you talk about five different sections. Can you describe how each of these sections fits into the overall narrative of the piece?

Russell Wharton: I divided this narratively into five chapters, and we're calling those chapters, "Dreaming," "Exodus," "Wandering," "Contact," "Integration." Now, I think that that alone, if we were to just tell people that those are the five little chapters, or movements, that's evocative enough alone, and gives people enough direction to where they could come up with a story in their head. "Dreaming." that can be a lot of things. "Exodus." Someone is leaving somewhere. "Wandering." That's a pretty clear narrative so far. Maybe they were dreaming of leaving, and then they left, and now they're wandering. And then, "Contact." That has a little bit of an ominous quality to it. We all, of course, think of the alien movie with Jodie Foster? Right. "Contact." And then "Integration." So they were integrated with whatever it was they made contact with. To me, I like that structure of a story. I mean, that's enough of a story on its own and we all can come up with that.

So, I was intentionally brief with my explanation of it. I wanted the audience to fill it in themselves. So, the "Dreaming" section is I'm the dreamer, or the hero, of this story. I'm at home, and I'm dreaming of leaving. It's your classic story. I'm home and it's comfortable, but I want to leave and see what else is out there. And as that section progresses, that dream ... It starts a little bit unconfidently, and it begins to take shape and grow in confidence and complexity as the dream becomes a plan.

"Exodus," especially if we're talking about space travel is meant to be really violent and intense and really ... There's a lot of work. There's a lot of bombast to it. Just think of a

rocket taking off. That's basically what we were going for, the feeling of leaving the atmosphere.

"Wandering," we're finally free of the atmosphere, we're free of all the chaos of below. But that's meant to feel like we're traveling very quickly, but also there is a stillness to it, because space travel, speed is relative. So, if I'm going whatever speed I'm going, I'm also standing still. My speed is only relative to some other body. There's supposed to be an incredible velocity happening in the track there, but a stillness and a calmness in the actual player, but also a little bit of fear. Toward the end of that section there's a turn, something changes, we break through something.

Then the "Contact" section arrives, and that is just meant to basically sound like we're having a conversation with an alien. I mean, I tried to go for something that was, well, just alien and foreign and really in your face and violent. I'm imagining communing with a being that is just perhaps massive, ancient, or something beyond our comprehension. Almost in a Lovecraft-ian sort of way. Something that is so different than anything we've ever seen before that is literally mind-blowing. We recorded snare drums and then just processed them as much as we could. The snare drum was good, because not only am I comfortable on it, but we could do these really weird, angular rhythms. We could make it huge, put a vocoder and all sort of distortion on it. The saxophone is meant to be a meek little human against the terror of this massive voice, essentially. But then toward the end of that, the voice melds in with our voice.

And then the end of the piece is just meant to be jubilant, almost as if we're flying through space drunkenly, or something, and just pure ecstasy. Its if maybe whatever that thing we were talking to let us in their home, or maybe it gave us some of what they know, like the movie Arrival. Not to spoil that, but the ending...We don't need to spoil the movie. I guess if you haven't seen Arrival by this point, it's a little too late. But you end up getting something from the aliens. Or 2001: A Space Odyssey. That's probably a more apt comparison, right? Then we are given some sort of new abilities or access, and then we're just joyously flying through space and experiencing that.

So, you could say it's a bit of a ... I don't know if it fully counts as a hero's journey, but it's very much an exodus story. It's meant to be extremely optimistic. There is danger within all this, but it ends up all living happily ever after, I guess you could say. Or maybe the hero is so transformed by the "integration." Maybe there's a darkness to they are no longer themselves, and they're happy in their new form, but their old form is dead. So, I guess you could say this entire thing follows" 2001: A Space Odyssey." I wasn't really trying to do that, but that's basically what is happening.

Andrew Hutchens: Yeah. I think the other interesting thing about the progression of the narrative and getting closer to the concept of integration is the further we progress through each section, the more and more the saxophone gets "integrated" into the electronics. Finally, in the last section it is almost full unison with the synthesizer.

Russell Wharton: Exactly.

Andrew Hutchens: Yes. Let's go through a few of these sections a little bit more in depth, starting with the first one. In "Dreaming," this is one of the more challenging sections to get that dream-like quality. Can you speak briefly on your ideas on conceptualizing in terms of the harmonic and phrase structure? How should a performer interact with the click track?

Russell Wharton: Yeah, great. Well, I want to clarify. When I'm thinking of dreaming ... I guess you can take it a lot of ways. I'm thinking more of day-dreaming, really. Just imagine Matthew McConaughey at the beginning of Interstellar, right? He's working on his farm, but he knows there's something more to this. So, I mean dreaming in a day-dreaming, wishful sort of way. Not necessarily like sleep dreaming. There are lots of ways you can take it. Just sitting there in your mundane life and just thinking about what else you could be doing. What else is out there?

So, as this section progressed, we start at measure five through to these little lines. Harmonically, what is happening is I'm freely switching between modes to try to create a little bit of unpredictable nature to it. We're just switching between major and minor freely. That's the, "Huh." The way your thoughts can turn. The way like, "Huh, I wonder what else is out there? But maybe I could. And maybe if I do this, that will work." When you create these plans, you have these tiny little moments of, "Oh, that's not going to work." Right? "Oh, but then that's how I solve that." You reach these ... I guess you could call it a negative direction and a positive direction, so that's what I was trying to capture. It's just the uncertainty of someone who basically has a crazy idea, that's what's happening harmonically there. When it comes to rhythmically, it's not until measure 45 that is says, actually, in time.

And so what's happening before this? What literally happened is I came up with what I want in the track, and I just wrote that. I thought that was a cool bed of tension to just play on top of. Yeah. It's tense, it's unsettled. It's meant for the audience not to be able to tell it's in 4/4, by the way. It's supposed to feel like this weird, odd meter, like 5/16 groove, maybe, or like that. So we got this bed of tension and unease, and then we're just sitting and we're dreaming on top of that. What I'm literally doing, when I'm writing this for this section, is I'm sitting, I'm listening to that groove, and I'm just really trying to put myself in the mood, almost like I'm acting or something. I was an actor playing this part. Then I just play the line on my keyboard a couple times in a way that feels honest to me, in a way that feels like I'm an actor and I've delivered that line with the correct emotion. And so that's a lot of trial and error. It's a lot of just sitting the thing, just looping it on my DAW, playing this and being like, "No, it's not patient enough," or, "No, we hang on this note too long. It doesn't really make sense." It's a lot of just doing it until I get the one that feels emotionally correct.

Andrew Hutchens: In other words, time is just there and we just need to be there at measure 45, essentially. More or less. The chord changes at 31. That's important to know.

Russell Wharton: You have to hit 31. Yeah, for sure.

Andrew Hutchens: That's was extremely important to know from the performer perspective. Measure 31 is also a larger moment.

Russell Wharton: Yeah. Well, so I'm sitting there, I'm improvising, coming up with this stuff. And then I go, "How am I going to get that to the performer?" How is the performer ever going to do that? So, there's a lot of ways that I could approach that, right? I could do that with feathered beams, right? Or I could do that by just writing, "Here's the groove, a repeat sign, play this over it. Take roughly this much time." What I opted for was to write out a pretty close approximation of how I played it. A version where if you just played exactly what's on the page, it would work. It would be good. So, I wanted to make your job really easy. You can just play this. The performer is also free to improvise within that. Start this a beat or two earlier. You don't have to play these exactly rhythms. It doesn't work if it's super exact. But I wanted to give the performer as much help as I could, and then let them know that they are free to break out of that if they're comfortable.

Now, that's hard when a click track is going on, because the click track keeps you in that on rails mindset, but I wanted to give it something, like at measure 20. When measure 20 hits, boom, right on that downbeat, we can enter there. That's a nice checkpoint that keeps me on track. So, if I were performing ... Obviously I can't perform this, not being a saxophonist, but if I were performing this, I would be keeping really strict track of what's happening within each measure. I would make sure that the first line begins somewhere in measure 5, and that it ends somewhere in measure 10 or 11. So, I'm having to count measures as I go.

Andrew Hutchens: There were always checkpoints within each measure. Measure 20, seemingly, was a checkpoint early on because it worked well, and that accent was very important. Fast forward to the *crescendo* up to *forte*. That's very important leading into that next accent. The next checkpoint was 31, but seemingly we're just toying with this improvisatory feel versus this *rubato* feel, and how much the performer is giving and taking in specific places before they get to improv and just wipe the *rubato* out.

Russell Wharton: Yeah, I imagine when you were learning it, you learned the rhythms that were on the page, basically exactly, and started like that. But I'll say to you, and I'll say it to this so that it's on the record. For me, my MIDI recording to you was a better guide for what it should sound like, or to me, a clearer guide than the written page, The MIDI recording had some micro-nuances to the rhythm or the dynamics that the notation disguised. Up until 45 it's really meant to sound like a slam poetry session or something. Someone just jamming behind us and we're just freely singing on top of that. The audience is not really supposed to be able to tell there's any sort of time, really until the drums come in at 52. 45 is more to make sure we're on so that when we get to 52 and the drums come in, we are on rails and there's a clear beat. I like it when music does that. Tigran Hamasyan is an artist that does that a lot. He's an Armenian jazz pianist, and it's a metal, very percussive inspired music. He'll write stuff where it sounds like there's no time to it, and then a beat will come in and you'll realize it was this cool, syncopated groove. It just adds layers to it. It's very satisfying. That's what's supposed to happen when the drums come in at 52. It's like, "Oh, okay. This was a beat the whole time. I just didn't realize it until I got there." I like stuff like that.

Andrew Hutchens: We can't really portray it exactly how we feel it in our head when you look at the page and see bar line, bar line, bar line, bar line. And you have a click track going in your ear. There's really no good solution to it. The more you play it the more comfortable it feels. We have to make checkpoints here to do it. It's how we approach it in the moment because no matter what we do when we're on stage, we're going to have that, instantaneous reaction to whatever is happening. Things are seaming moving a million miles a minute. In this specific case, what we see and what we hear do not line up and it becomes a case of a mind over matter.

Russell Wharton: Well, and that's a nature of the medium. And hey, maybe that's me trying too hard to fit a square peg in a round hole or something, but as long as we're doing these pieces where you basically hit play on an audio track and you try to play to it, you're going to have to have some way of sticking with the track. This opening section would be a lot easier if there were a player, maybe a bass player, playing that little groove behind us. And we could just cue them when we're going to 31 and we could just cue them. Then we could cue the drummer. This whole opening section...actually quite a lot of it might have an easier with a small jazz combo.

Unfortunately we have this version where we have to hit play, but I'm writing for these electronics. They're created in a computer. It's exported. There's no variation. If you play this piece, and if I play this piece, and a bunch of people play this piece, everyone's going to hear the same track. Something I've been trying to do in the past year or so, is allow pieces with electronics to have more room for the individual. If it's supposed to be perfect, if you have this track that's obviously the same every time, and then you have the individual performance, and then individual performance is supposed to just play it perfectly in time and in tune, in these exact dynamics, then why write for a live performer? That doesn't make sense with the medium. A live performer is always going to have more variation, so we should be writing for that. So, this section and then the section at 109, The "Wandering" section, I wanted to allow the performer to express themselves. I wanted to allow the performer to feel like they were improvising, so that your performance is unique to you, because there are parts of this where the goal is pretty much to play exactly what's on the page. There are parts of it where that is what we're trying to do. It's just play perfectly, but sometimes that's at odds with individual expression, if that makes any sense.

Andrew Hutchens: A lot of this can be perceived as improvisatory. Even the section at 174. Even though it's meant to be very strict, because of the processed snare and the dialogue back and forth. You even described it as flat ... Flat, not as in intonation, flat as in flatline with no vibrato.

There are little falls, even though you've notated them very specifically, like in 226. Those are super improvisatory. I remember playing these very precisely. Knowing they're just supposed to fit into the style of the piece goes a long way into capturing the individuality and narrative behind the piece. It helps each section build off one another. Not only does that happen, but the last section reflects back to other sections. I think that's what makes this structure so unique and well-built.

Russell Wharton: I don't think of myself as trying to compose in an improvisational style, but I suppose it's what I do in most of the music I write, has that quality to it. But for me, what it really is, I'm just trying to write something that connects with me emotionally. I'm just trying to write something that I think sounds good and works for me, and tells the story. That's just what ends up happening in the end. I'm writing these lines, like at 174, The "Contact" section. That's just a sentence, a phrase. This is my opening phrase to this other being. Yeah, it could be seen as improvisational. For me, it's just what feels good and what sounds good to me.

Andrew Hutchens: How does being a percussionist influence the rhythm and groove of the "Contact" section?

Russell Wharton: Yeah. I had a lot of fun writing the snare drum part in this section, because I actually think those are some of the cooler snare drum licks I've ever come up with. These little phrases here, which is funny because they're hidden in a saxophone piece, and many percussionists will not hear them. I really like some of this material. Like I said, it's an alien talking. At least you can think of it like that. I'm just trying to come up with rhythms that are so out there, that it's alien like. There's a very clear pulse, almost like a heartbeat going on underneath this section. Like the rest of it, I spent a lot of time just playing stuff and being like, "No, that's not weird enough," and just trying to come up with something that was really, really weird and surprising and violent and out there. I think because I'm a percussionist, I'm more comfortable working in that. I just had a lot of fun trying to come up with some of the weirdest rhythms I could think of.

Andrew Hutchens: Let's talk about the ending section a little. This is something that is challenging, because as saxophonists we're so used to playing big, playing colorful, with vibrato. This ending is really challenging because you are at the constant mercy of the synthesizer.

Russell Wharton: Well, yeah. That goes back to the beginning, in that we have this groove, and it's supposed to sound like the saxophonist is just improvising on the groove. But now, when they play one note, ten notes come out. That's the effect we're going for.

We discovered you have to eliminate vibrato all together in order to get the saxophone to blend with the synthesizer. That was not something that I realized right away, but the

synth and the saxophone have to be as close sonically as we can so they actually blend in the live performance.

Andrew Hutchens: I play this with in-ears, and not a monitor facing me. So, the click is blaring, so you don't hear everything that you think. That's one of the things that anybody who gets this into a live performance, or down the road wants to record this piece, needs to be aware of. This synthesizer, and the synthesizers anywhere, are really important just for blend. There are a lot of low frequencies, especially in the beginning, that we're matching unison with and if you're not perfectly in tune and matching timbre with them, it doesn't go well for you. Especially in the "Wandering" section.

In each section there's a pretty noticeable shift in how the electronics are interacting with the saxophone. I think it's pretty noticeable how the performer is supposed to interact with them. I think one of the more noticeable changes, and one of the more interesting and cool changes, is in the "Wandering" section. So, it's how we interact there that really sets the style for the remainder of the piece. How do you view the transition into the *Wandering* section?

Russell Wharton: Yeah. So, we have the arpeggiated synth and it's flying all around. And I'm just imagining Star Wars light speed. There's stars whizzing by us. So, we've achieved our goal. We've left. In the "Exodus," we have finally left, and now we're wandering. But the saxophone is a little fearful and a little bit unconfident. It's a little bit like, "Okay. I achieved my goal. I left. Now what? Am I going to starve to death out here?" And at first it's also intentionally harmonically at odds with what is going on in the track. It should have this meek quality to it to start. Just like, "Oh, god. I left. I've left home. Now, I'm afraid." That's scary, right? You leave Tatooine for the first time or whatever. It's frightening. But as it goes, the performer grows in confidence, and they ... So to speak, they end up knocking on the door. And then right at the big fortissimo note, at 156, we break through. I leave that open to interpretation.

Andrew Hutchens: Yeah. I think that's really evident, especially when we get into the 137 mark. We start really blending with the synth, or responding to the synth at that point. That is one of those unison moments where we are coming in at the end of the phrase unison with them. The *nientes* are extremely important at that point, because it's at a lower level. As we get up to the *mezzo forte* and have these *rubato* rhythms the color characteristics that the saxophone is shooting for shift alongside it. Like you said, you're seeing the stars.

Russell Wharton: In the track, it's smearing. You have the really fast arpeggiated synth, but it's getting distorted and it's smearing. Coming out of this ... I keep thinking of this smeary quality texture. We're traveling through light speed, and we're seeing the tail. We're holding our hand in front of our face and it's distorting. We're coming in and out of existence, almost, or of being able to perceive ourselves. It's this very intense, high velocity thing, but also very weird and unsettling. Getting the dynamics right there, and getting that right with the track, it should sound like we're coming in and out of clarity, and then back into just being smeared. Andrew Hutchens: Your emphasis on the performer element within this piece comes across immensely. Often performances with electronics and click track can just become repetitive. Can you briefly talk about your influence in this practice and how the collaborative process aiding in building this feature?

Russell Wharton: Okay. It certainly is a challenge for me, because when you're starting as a musician, you're young. You're in lessons, you're preparing these etudes or whatever. The goal usually is play this perfect, right? Play exactly what's on the page. Of course, I spend time in the marching realms too, and there the goal is to play this perfect, and play it the same every single time. So, learning to embrace the imperfection of being a human ...with the whole AI art thing happening right now, and people are wondering, "Okay. What is the future for artists in a world where AI can create great quality art?" Well, the human is imperfect. Humans are endlessly varied. And that is maybe something that can never be replicated by AI, or whatever. I'm trying to learn how to embrace that more as a musician and as a composer. I was trying, of course, to just try to be perfect. Try to play it perfectly every time. A good performance is one that is perfect. This was ... I'd say, when I wrote this piece, of all the pieces I had written so far, this is probably the one that embraced individual variants the most. And everything I've written since then has had more of that. But this was me trying to allow the performer more room to be themselves. So, I hope some of that came across.

Andrew Hutchens: It was a challenge. We talked a lot about articulations in this, especially throughout the drafts and recording. Narrative based pieces like this are always a challenge to get the right style of articulation to fit each individual narrative or section. Not only are you thinking, "Okay. We have to be rhythmically and pitch accurate," but then you also have to be able to perform expressively within each section's style. It's not just a technical difficulty, it's multiple-level musical difficulty. Then you must play with a click track while you are playing something that doesn't exactly align with it. Ultimately, it just comes together really, really nicely, and tells the story, and not just music, across.

Russell Wharton: This was a risk and a challenge for me, writing for an instrument I'm unfamiliar with. Just to say one more thing on the human element of it. We have this obvious Science Fiction inspiration. I'm a big fan of that genre. Hans Zimmer has made a lot of scores in that genre like Interstellar, Blade Runner 2049, and now Dune. There's a lot to take from that, but all of those stories ... I have been asking myself recently why am I drawn to that genre? Other than being a nerd and growing up playing a lot of video games, why am I into that? Because great Science Fiction is always asking what does it mean to be human? It's always something about the very essence of humanity. Blade Runner, of course, deals with the idea of being a human, or being basically a copy of a human, and what bestows someone with humanity? Dune is what is the future for humanity if we take technology out of the equation? Right? Or we take computers out of the equation. I find that just endlessly fascinating, just explorations of what it means to be human. I think that fits really well with what we're trying to do with this piece, to imbue this with a sense of individuality and humanity. I think that ties in very well with the Sci-Fi aspect to it.

APPENDIX C

INTERVIEW WITH MICHAEL LAURELLO

Andrew Hutchens: What other pieces have you written that include the saxophone?

Michael Laurello:, I wrote a piece in 2018 called Mosaic, that was commissioned by Grand Valley State University, New Music Ensemble for their National Parks Project. That included alto. That was for flute, alto sax, violin, vibes, and piano. That is it as far as classical music goes, but my initial training as a musician through high school and college was as a jazz pianist. I wrote charts for sax players all the time. Yeah. But as far as classical music goes, this would be my second piece that includes saxophone.

Andrew Hutchens: What do you find interesting about the characteristics of the saxophone?

Michael Laurello: I think there's this interesting tension coming from jazz. There's some sort of cultural baggage that the instrument has that it's really difficult to separate genre from it. I think all instruments have some kind of visage of where they came from. What I find interesting is when you use the saxophone not in a situation like that, you take it out of whatever context you might think a saxophone belongs in and you put it in another context. I think there's something very interesting about that.

Andrew Hutchens: I agree. That also helps engage listeners and performers on a higher level.

Michael Laurello: Totally, yeah. And there's something that's fascinating about that, because saxophone just really pulls on that. In almost the same way when you have a violin existing in some sort of jazz context. You're signaling the exact opposite, is, "Oh, what are you bringing to that ensemble by including that instrument?"

Andrew Hutchens: Yeah. Saxophone is established enough in the classical world now that it's standardized, but at the same time it's so established in the jazz world where when you put it in a context that's correct, it's can take on many different roles. It really is one of the most versatile instruments

Michael Laurello: The thing that's so great about the instrument is that it's so easy to write for as far as there's very few things that I have to be aware of with saxophone and sax players in general. They're a lot like percussionists, where they're not wrestling with centuries of problems and solutions that have already been made, is that they are just down for anything.

Andrew Hutchens: Yeah. We're very adaptable creatures. And usually we'll be very upfront and very honest, but usually it doesn't come to that. We'll just do anything...within reason (laughs).

I think that's a big reason that the saxophone's piquing in new music now, because a lot of composers are seeing that instrument can do a lot of different things. It can function in all four voices, soprano, alto, tenor, bass. No matter where you put it in, and that's one reason that I am so dedicated into creating new music, because composers feel free to experiment any way they want to. And that leads to a lot more active collaboration between the composer-performer relationship.

Michael Laurello: Absolutely. The way that the instrument works timbrally is, I think, in a lot of ways the way percussion works, where I don't have to give specific literal instructions on how to approach a passage or how gritty I want something. With percussion, I don't have to say, "Switch to these mallets in this section." The percussionist knows intuitively, given this massive range of possibilities, what might work. The saxophone, for me, has the same sort of massive timbral possibilities, and I also don't have to literally articulate, "This is what I want you to do here." Whereas I think when I'm writing for strings, I do often find myself having to sometimes be very, very literal because that instrument demands, to a certain extent ... Or the performers, perhaps, are accustomed to a much more detailed.

Andrew Hutchens: Can you speak a little on the conception of this collaboration?

Michael Laurello: I think if I remember correctly, you reached out to me and had proposed a project. I think I took the cue. Yes, of course I'll write you a piece. Sounds like a great instrumentation. You guys sound great. And then the idea of, "Oh, well we don't want a melody-accompaniment relationship." Oh, perfect. You just wrote the piece for me. I know exactly what I'll do. So, that was I think how things got rolling.

Andrew Hutchens: So, at that time, and to some extent now, we were super interested in really balancing our roles. A lot of the pieces in the saxophone-marimba canon have very unbalanced roles where the saxophone played the melodic voice and the marimba played the accompaniment role. We didn't really like that. We view our ensemble as one that paves the way for something new and are equals in the ensemble. So we said, "Hey. We want something that really balances out the two roles." And then you really gave us complete unision.

Michael Laurello: Literally.

Andrew Hutchens: I recall getting the score the first time, opening it and thinking it was a joke.

Michael Laurello: This is what I asked for. That's funny.

Andrew Hutchens: But yeah, because our inclination was that it was just copy-paste score. We played it, and we were astounded at the product. "Oh. He's created a timbre that is so unique, and so challenging for us." This idea of musical togetherness, other than us telling you we wanted something that did not split the roles, what was the inspiration behind that?

Michael Laurello: One of my former teachers was David Lang, and he very often in his music, finds some sort of essential kernel of an idea, and really pushes on that idea. Pushes the players, and pushes the concept as far as it will reasonably go. Not to say that Unity Synonym does that, but that made me feel confident about taking an approach where there was literal togetherness, and that the unison rhythm was such a simple idea, but that being the unifying principle was something that was okay to do.

Andrew Hutchens: Yeah. So, for me, when I approached it, it was always like this onesided joke that started and just didn't end until the second part. And then it just laughed as it went along, and then it was like, "Okay. The joke's over. We got to the end." It's a comic that pushes the joke right until the audience can't take it anymore, and then it breaks. But they seem to get the most laughter that they can out, which is the result.

Michael Laurello: Yeah. That's a cool way of looking at it.

Andrew Hutchens: Yeah. So, there was always this, "Am I going to make it?" And then there's this, "Wow. I got this instant gratification," because of that, because the progression through the piece is such this intense collaboration. At the time you wrote it, I really think, because this is 2019/2020, if I'm correct., I really thought that this piece needed to be written at that point. We premiered this at The 2020 NASA Biennial Conference at Arizona State University and the COVID lockdown started as soon as the conference ended. We were at this big loss of musical togetherness at that point. I think that this piece was what needed to happen, It's unfortunate that our performances got cancelled, but I think that you sparked a sense coming out of that, in a way, for us.

Michael Laurello: Yeah. I appreciate that. And I was thinking of that time as well, obviously, with COVID, and really the political situation in the United States, this division. What's the antidote to that? Or what's the flipped, the mirror image, or whatever, of that represented musically? And I like pieces which have a strong internal concept, unison or non-unison. Very easy. But something that also has an extra-musical resonance. Pieces that can operate on more than one level. With this piece, like most of my work, I try to find that. What is that idea which works on both of those levels? Musically and also extra-musically, and all wrapped up in one idea.

Andrew Hutchens: Yeah. I think that partially the lack thereof really gave us the opportunity to create what we needed to out of it, because it was such unity between us. So, I think you leaving space for the performer to create that togetherness was such an important thing. Not putting too many bounds on that, because in your program note, it was just, "I wrote this because they said we wanted this. The aspect of unity is important. I'm not giving you much more." Ultimately, there was communication between us, but

it's up to us to determine how we have to make it through that together, because when you're playing in rhythmic and pitch unison, everything is obvious.

Everything, nearly, in that first section, is in unison. So, you use a lot of rhythm and pitch unison, which creates a very large challenge and a very unique challenge for both the performers and the audience, at first. So, how do both the elements of pitch and rhythm play an important role in developing the narrative of the work?

Michael Laurello: Yeah. That's a really good question. So, most of that beginning section ... Well, most of the piece was I just improvised, which is how I write most of my work. I will essentially just record myself for a really long time. I had an idea that I was just working with a single line for this piece, for the most part and so I just recorded for a long time me playing single lines, all this material. Then I usually wait for a while, couple days, come back to it and listen, and see if there is a germ of an idea in there somewhere. I think when I listened back to this one, I heard those stacked fifths, and I thought, "Oh, okay." The melodic fifths. And oh, okay. That's going to be the intervallic underpinning for the work. So then I started again, improvised again with that in mind and then as I record little bits, I am much more conscious about ... Okay, this line will expand. This will contract. This will move up in register. This will move down. This will change its tonal center from one area to another. But I didn't give a lot of thought beforehand, and I didn't map out where it was going to go or what it was going to do. It was just a intuitive, chronological start at the beginning, write to the end, through mostly improvisation.

Andrew Hutchens: Okay. I can see that. On the surface, it looks like a clear form. You had this idea...pause...then this idea. It transitions. But at the same time, there is such an element of freedom to it that you can tell that there's something else happening.

Michael Laurello: Exactly

Andrew Hutchens: The sections themselves feels so structured because of the progression of the rhythms. You start having different phrase groupings and slur groupings until you get to quintuplets, sextuplets, which really help make that section develop. Can you talk about, even though you said it was improvised, the metric properties of this section and speeding up these rhythms?

Michael Laurello: Yeah, sure. A lot of where you do start getting the -tuplets, and especially that section where there's that measure of 1/8, which I hated to put in there. A lot of that was I just couldn't figure out how to connect ideas and transcribe it. I knew I wanted to move faster. So, this would be at Rehearsal H, the rubato section. I knew that I wanted to move faster, but I couldn't find a better way to transcribe what I had, so that's why it looks the way it does, is that I couldn't find a different way to transcribe that.

Andrew Hutchens: Rehearsal H is a really interesting part, and I'm really glad you brought it up, because this is a really good section that, as performers, we struggled to understand how to connect the prior section and the section after it. When you look prior

to Rehearsal H, there is different ideas that immediately throw you off. There is a very clear tempo for the most part, and then we have a 12/32 bar out of nowhere. That creates this different atmosphere, which now that you've told me it's very improvisatory, that makes much more sense why that is there.

At letter H you notate the word *rubato*. Can you speak on this concept within this section?

Michael Laurello: Yeah. I think that's a great question. And when I was looking back at this when I was doing that revision a couple days ago, I think I looked at H and I said, "Oh, rubato." I think the reason that I put that there, and I don't recall exactly, but it was really just because this could be interpreted as … You could look at this without any dynamics or mood markings or slurs as some sort of mechanical exercise, where it's rigid and it doesn't feel like there's a lot of life in there, just the way that the rhythms are notated. I think with the rubato, I wanted to hopefully inject some push and pull, almost like with a watercolor, and washing over the surface a little bit, rhythmically, so that you did not feel, as a performer, that you were beholden to putting on a click track and trying to nail this thing out. That, really, was about things speeding up and slowing down, and speeding up and slowing down.

Andrew Hutchens: This is the checkmark for us when we perform the piece. Other sections, we knew we had to be right in time. We knew we were collaborating together, we knew what we were doing. When we got here, it was, "Okay. We're pushing and pulling." The time is different. So, it's like this breath of fresh air, but the air is tainted, because we're not used to it. But at the same time, it provides the audience something different to latch onto. I'm going to go back to when we first got the piece and we opened it and were like, "Oh, copy paste." Before I even played it, so this was a preconceived notion of how is the audience going to stay tuned to this? Because we got maybe a five second window before they start thinking about squirrels, what they're going to have for lunch, all this.

I think you did a really good job of tackling that, especially since we're both playing single lines in unison. When that's happening, we have relatively short phrases that really utilize the time and space of both sound and no sound effectively. Letter H arrives and the time is no longer as strict. So, I think that balancing out with the improvisatory features really helps keep the listener interested throughout.

Michael Laurello: That's a really interesting point that I hadn't thought about, is this disconnect between that really well-executed, for whatever that means, this should feel like an effortless flowing whatever. Meanwhile, the performers are working so hard. That's such a heavy task to give the performers, is make this feel like it's mellow and wonderful, where I'm needling the most vulnerable part of what it is that you do as an ensemble.

Andrew Hutchens: Yeah. So, it's not just the fact that by playing in unison, we've created a sound that fits into each other. Let me be specific, the alto saxophone and marimba

sound are very similar in timbre. They can be, rather. So, the saxophone sound fits really nicely into the register that is written here. And it creates this multi-textured timbre that comes out, and doesn't sound like any one particular instrument when balanced correctly, which poses some ensemble problems in the beginning. Trying to find the right balances, but when done correctly, you get this beautiful timbre that an audience member might not have heard before, because we don't typically play in unison for that long.

But at the same time, it's the performer's job to not show that we are playing in unison. And it's the saxophone player's job, because the saxophone player is the only one that can physically move the pitch to not play out of tune, and to not show that this went wrong. If all goes well, or if ninety percent goes well, the audience sees and hears great things. And that just adds and adds to the benefit of the piece, and that's why I think this piece is such a great success with audiences, because the aural and the visual elements complement each other so wonderfully.

Michael Laurello: Right. Just working with percussion in general, audiences understand someone hitting something. You can see it, just same way you can the piano. Okay, I see fingers down on keys. Sometimes, other instruments it's not clear what's difficult and what's not, because you can't see it. Oh, yeah, you're hitting something. I think the simplicity of how that operates is a little bit like the way this piece works. What you're saying, where, "Okay, they're playing together," is very easy. Any audience member of any experience level can understand that they're playing together. And so that tends to be very attractive to me, as far as the way that different pieces are organized. Is it an idea that is simple enough for really anybody to access it at any level? Whether you want to go really deep into it and analyze what's going on is optional, but is the concept accessible by virtually anybody, is something that's very important to me.

Andrew Hutchens: Yeah. I think that was the approach we take. Our philosophy is to see how well we can do it, and make them wonder who is actually playing.

Michael Laurello: Right, that's really cool.

Andrew Hutchens: Let's move on to the second section. There is a really clear break to transition between sections at this point. Can you describe the connection between the two sections of the piece and how they work together?

Michael Laurello: Yeah. So, I do this with a lot of my works. I've written a lot of pieces that have two sections. I'm not sure why that is, other than I tend to think, "What happened in the first section? What's the opposite of that? And could that be sustained as a possible contrast in a second section or a second movement, almost?" That's what I did here, is I thought, "Okay. Here's unity, and here's disunity." In just a purely mechanical sense. The whole thing's a canon, for the most part. I knew that I did want to circle back at some point and try to get back into that original material at some point toward the end, to cap things off. That was the one thing I had in my mind as I was putting together these canons and these hockets, is how am I going to get back to something that resembles the beginning section to end the piece? Andrew Hutchens: I know you said you didn't think much about overall form, but you have some really impactful key changes. The first one leading into letter C in the first section. Letter S is the other really large one. Can you speak on those at all, and your thought process behind why these huge key changes?

Michael Laurello: It's like that moment in Electric Counterpoint, in the Reich one. When it modulates, and you're like, "Oh, crap," and you get chills. It's basically, "Okay. I'm in this section, and we're humming and moving forward, and how can I create this chill generator that just keeps moving?" I had a teacher, that showed me wherever you go in a piece, when you're writing, that the listener doesn't wish that you were where you just came from. Never go somewhere and make it be like, "Oh. Okay, yeah. This is cool, too." Always be pushing forward so that when you arrive somewhere new that the listener is like, "Oh. I don't care what happened before. This is it right now." And so you're constantly building energy and building energy, whether it's becoming softer or louder or whatever, but that you're always bringing the listener forward. I think a key change naturally is just a caffeine injection.

Andrew Hutchens: I think that these key changes do outline some sort of subconscious form, but it's less about a form, and more about where it's going. And the *Electric Counterpoint* reference is perfect. That is such an iconic moment in the piece that it almost any musician can relate to it.

Michael Laurello: Yeah. We have this huge section of unison, and then you've got this hocketing rhythmic section, but I think being able to modulate to a different, let's say, modal plane can be really one of the few devices that you have in a piece that's this straightforward to really give energy, because dynamics can only get you so far. So, what other tool do you have if you're trying to stay within these two contrasting ideas pretty closely? You've pretty much got, "Well, I can modulate." That's what you've got.

Andrew Hutchens: Exactly. What really begins to tie everything together is recapping the melodic themes from the past at the end.

Michael Laurello: Thank you. Yeah. The fifths make an appearance right around U, and then you're back into that what was rubato but is now called, "Freely," for whatever reason. It is the same concept just a little more conclusive.

Andrew Hutchens: It's one of those things where a text is just like a vehicle for expression. It's always about the line of the music, and less about the preciseness of the music. If I played this piece perfectly with a metronome, it would not be a great example of togetherness. That takes away all the human element of it and that's what this piece is about. If we were perfect every single time, it would not be good.

Michael Laurello: Yeah. Absolutely. I mean, even looking at the beginning section, when we talk about needing to match the intonation, having your intonations so you're exactly with the marimba, part of what's interesting when you're recording is when you double track vocals and you record a vocal line, and then you just record the exact same vocal line, the pitches are never matched exactly, but the chorusing effect you get from that makes it feel bigger than if you did have it exactly the same pitch. So, there's an intentional effect to it. To your point, if it were perfect, you would lose a whole lot. You wouldn't get the shimmering quality that you get when you have these subtly different pitches rubbing against each other. So, imperfection is at the heart of it, in some ways.

Andrew Hutchens: I'm not saying that the human element of imperfection should outway the intense collaboration and technical journey of the piece. It just inherently happens. I did spend quite a long time figuring out different fingerings that I could work with to help balance at that volume, and things to help bring out the timbre of the saxophone to balance with the marimba. They weren't crazy, but these were things that helped us have conversations about, "Okay, we're starting out here. Where is this going? Is it stopping here or is it going here? What is the intention of this?" Because with a piece that's just unison, we're trying to create something that the audience can connect with further. Whether that's the dynamic moving here, adding this little swell here, is something that we can do, even if it's just like, "Okay. We know that this peak at this *crescendo* is not going to go well. Let's start it later. Let's do this." Something that we could do to help compensate for us just being mind-boggled by everything.

Michael Laurello: Yeah. Well, I'm always so glad to work with performers who naturally will take that approach, because the first page of the music, there's just a piano at the beginning, and there's no other dynamics. There's some phrase markings, so where is the music in that? I'm clearly expecting, or hoping, that there's some conversations about, "Okay. Let's taper this off. Let's slow down a little bit here." I want to return some of the authority, or some of the agency, to the performer.

Andrew Hutchens: It's always a difficult decision, as a performer, saying, "Okay. They wrote *piano*. How wedded are they to that? And for how long?" But as musicians, we have to know that they wrote that for a purpose, but any time we see a dynamic ... A *piano* has so much window in it that we have to be able to exploit. And so us being able to have the conversations, oftentimes hard conversations, when you're playing this together are really what sways the performance between good and great. And that's especially when you're making new music, and it's not always super friendly to an audience right off the bat. Luckily, this piece is not so deep into that audience not-friendly music, because this piece is a really great palate-cleansing piece. It's easy listening. It's approachable for everybody, all ages.

APPENDIX D

INTERVIEW WITH STEPHEN KARUKAS

Andrew Hutchens: I'm glad you joined me today for this interview. First of all, great piece. We really enjoyed playing it and commissioning it too. This was the second piece we did that I worked with you on, right?

Stephen Karukas: Yeah. Well, I worked with you guys a lot, actually. Actually, the same piece with you, because we did It Flows, which was alto sax and marimba duet. It was in 2017. Much different piece, but yeah. I think that was the beginning of our collaboration, I think.

Andrew Hutchens: That was your first piece for saxophone too, was it not?

Stephen Karukas: I think it was. I mean, of course I went to school for composition. So, I did these assignments where I would write a two minute thing for saxophone, but that was basically it before that piece.

Andrew Hutchens: Now having written two pieces that include the saxophone, how you feel it contrasts when writing for it and other instruments?

Stephen Karukas: I like the saxophone. Well, I guess I should mention that we're talking about the collaboration. This really does seem like the perfect combination of instruments, because compared to percussion. It's very similar to percussion in that neither of them is really fully accepted in the orchestra, I guess. So it's like a sibling. I guess I'm more talking about culture here, but you're more open to new music. You like playing with other saxophonists and other instruments. It makes it super great to work with saxophonists, is a big part of it.

As far as the actual sound of the instrument and the way that people play it ... There's this thing I've always loved about clarinet, actually, which is it can just create these perfect, pure tones that just come out of nothing and just seem to grow without any sort of grittiness, and you can sometimes get the breathiness in there. The saxophone has that built in. I guess the style is more so to add some vibrato, but you can create sounds that are as clear as that, or you can create things that are rougher. To me, it's a more raw version of the clarinet and so that's what really sold me on saxophone. It's like if you upgraded from a normal car to a sports car. It's got all the bells and whistles.

Andrew Hutchens: I like that analogy. I think I'll have to start using that.

Stephen Karukas: Yeah.

Andrew Hutchens: So, I think that we can both agree that based on that first collaboration with *It Flows*, we both learned a lot about the characteristics of the duo of saxophone and marimba, and how we can collaborate effectively. We had FaceTime's, Skypes, and talked a lot about saxophone technique and writing effectively for it. So, how did that first big piece that we worked on together affect writing for the new piece, *Third Rail*, the quartet version?

Stephen Karukas: It's interesting trying to look at myself even as a composer from then versus basically now, or in 2021 when I wrote that piece. We went back and forth on It Flows. I learned a lot from that. One of the things I did with that piece is I wrote a lot of really melodic things and more slurred sextuplets in the saxophone, and not really any sort of rhythmic things in there. I don't think I wrote a single staccato, or maybe I wrote an accent somewhere. But it was pretty just like, "Oh, I'm writing for a woodwind. I got to make it accessible" which is a really bad take, because you guys are so good at articulation. I underutilized that.

Andrew Hutchens: I would definitely say that much like any composer, any performer, that your compositional style is starting to develop as a unique voice. You now, obviously, have moved on to a great job at Google and you were doing your Amazon thing, but you're still actively composing and performing. But I don't think our collaboration ever stopped for it to process in. And that is what I think is the landmark of a great composer-performer relationship that really stands out in commissioning pieces. So, we just talked about the style changing back and forth. When you were writing *Third Rail* in this period of your life, how do you define your compositional style?

Stephen Karukas: Yeah. I guess I've always seen myself in a post-minimalist style. I guess you can fit so much stuff in the word post-minimalist that I guess it doesn't hurt to have that name. Growing up I was really influenced by Steve Reich. I am blanking on other influences historically. I guess that's the percussion music that I grew up on, was very rhythmic and generally very repetitive. And so when I think of writing a piece of music or writing a section of music, I think about something that's constant, and then how we can play with it. And if you listen to ... More so It Flows, but also Third Rail, it doesn't sound like it's a piece of minimalist music, really, I don't think. But within the microcosm, the shorter time periods, I'm thinking about how can I take this repeating idea and mess with it a little bit. So in the small scale, I'm doing these things like repetition or canon or augmentation of rhythms that I think are pretty standard in minimalist or post-minimalist, that kind of style.

Andrew Hutchens: I definitely agree that your music definitely has a post-minimal, but you are correct in saying that the term post-minimal is an extremely broad term. The term minimalism is even more so broad. I also agree that these two pieces, the one we're focusing on being *Third Rail*, doesn't confine to that, but has moments of, "Yeah, it's there." That's influenced by this. And when I hear the piece, when I perform the piece, I definitely hear your percussion background coming out. And having played a lot with

percussion. Now, five, six years, playing with my colleague, Daniel. I've been exposed to a lot of percussion music. So, I hear the Ivan Trevino, Michael Burritt, and several other key percussion influences in there.

So, it's interesting, the development here. Even though *It Flows* presents itself as a much deeper piece, I think this one presents itself as a fun, energetic piece, but it has a lot deeper context than this less rhythmic, more flowing piece. Also, this is a much more crowd-pleasing piece. We play it as a closer. *It Flows* ... I'm not saying *It Flows* is not a crowd-pleaser, because people love that too. It's just it's the opener. It's the middle piece. This one is just electronics, or there's four people playing together. Audiences love chamber music and seeing collaboration on stage. People love high energy pieces.

Stephen Karukas: I guess another word to describe my style is that I want to write music that I just like to hear and jam to. And I think that's pretty common among percussionists, too. It's a more intuitive and less academic approach to composition. So, my music is very harmonically oriented. This piece, Third Rail, is centered around G, and it's basically just G Minor. And another things that's characteristic of my music is that I just like beefy sounds. Especially in It Flows, I guess, there's always really low, rumbly sounds in the marimba that are these voicings that I just spent hours trying to come up with, because I just love living in that sound there.

And also to talk about Third Rail, it's really interesting. Thinking about that, as something that I've written now ... I wrote it a year ago. At that time, or I guess in 2020, because I wrote a piece in 2020 that was more like this. At that time, I hadn't really written anything that was even close to being a crowd-pleasing, end of show piece. I think I realized at some point in the period between 2019 and 2020 that there was something about the music that I liked and I wasn't really bringing forth in my music. It was a boldness that I think the really short notes in Third Rail really bring out, as well as the changing registers, from one eighth note to the next. Things like the tag or the sudden changes from soft to loud. Those kinds of hard edges are nothing like the music I used to write. Though my music follows certain similar veins, but that's something different about Third Rail, is that I just wanted to write something that was groovy and it had these rough edges. And I don't know if you want me to talk about my specific influences for this piece, but I can go on and do that as well.

Andrew Hutchens: I want to dig a little bit more into the conception of the piece. I approached you about this piece, knowing that we had collaborated before and we had a really positive experience. You had worked with Daniel aside as well and you wrote a really great multi-percussion piece for him as well. So, we wanted another one. I really didn't give you much to go off of. I left it open-ended, seeing what you wanted to write. At the time you were doing an internship at Amazon in Seattle, correct?

Stephen Karukas: Yeah. I actually can't remember exactly when we were talking about this piece. It might have been slightly before the internship, but the piece is totally within the internship and a little bit after. Based around my experience in Seattle, I think it was slightly before.

Andrew Hutchens: Yeah. So, could you talk a little bit about why you chose the specific instrumentation you did and what the name means? The name itself is very interesting. *Third Rail / Revelation*.

Stephen Karukas: Yeah. So, Third Rail / Revelation, it's Third Rail slash Revelation. It's not like those are two different things in the piece or anything. It's just two different ideas that I'm trying to combine. Two different things that are scary and sublime, this big end, and a bit scary to think about. If you're on the subway and you've got this train going past you and you're five feet from the edge, and you're like, "I don't know if I'm going to get sucked in." It's an intrusive thought you have, but it's scary to be in these situations.

And altogether, this piece is about the fear of living in a city. Living in a city is not a thing that I experienced until I moved temporarily to Seattle last summer, and now I live here full-time. One thing I highlighted in the program notes was that a big part of my experience in Seattle, because I didn't have a car is I would have to take public transit. It's a big city. You got to find a way to get to work, you got to find a way to get to where you go to your groceries. Public transit is really interesting. I mean, I don't want to go on a rant about how important it is to a city, but it's a melting pot of people that just are buzzing from here to there. It represents a regular schedule that people take in the morning to work, and then away from work. In my mind, there's this image of a robotic motion on subways. I guess there's not really that many subways in Seattle, but on buses, things like that.

A lot of my experience with Seattle was through public transit. And I was living in the International District, then I worked downtown. So, I would take a twenty minute bus. One of the most striking parts of my experience in Seattle was one day, just riding a bus and somebody gets on. They just walk on, and they start screaming at somebody. I'm looking to see who they're screaming at, and nobody's there. There were a few people on this bus and all look a little afraid. The bus driver's shouting, "What are you talking about? Work it out or get off the bus." I guess this person was just having some sort of episode on the bus, and just the fear I felt in that moment amplified something I've been feeling, which is the anxiety of living in a city and trying to get around and be on my own. And also, I was thinking in an empathetic way to this person having this experience. They're probably very scared, because they appear to be afraid, they appear to be angry. I'm afraid too. It was a weird experience, because I didn't feel like I was in danger, but it was I'm sharing this experience of fear with someone. That was a striking experience I had.

I didn't want to make a representation or parody of somebody's lived experiences on that bus, but what I took from it ended up being a lot of the inspiration for this piece. There's some explicit references to anxiety and screaming in the actual music itself. So, that's my long answer to where the word Revelation came from, as well as some of these shrieking sounds in these multiphonics. Then, in the duet version, those became growls. And I guess there was some sort of screechy sounds as well in the electronics. But those sounds are a combination of some sort of screy screaming and also maybe some hissing and squeaking on the mechanical parts on a bus or a train. I was imagining that there was a demon in this person's mind and they were afraid of the demon, and they were angry at it. The piece is just mainly about the anxieties of a city, and how industrial it all is.

Andrew Hutchens: I think this comes across very affectively throughout the piece. One key element within our collaboration was creating a duo version with electronics for this piece. Can you talk about what the purpose of that duo was, and how you decided to condense the parts?

Stephen Karukas: Yeah. I really liked writing the duo. It was so much fun. I'm trying to even think about where exactly the idea came from. Maybe you can remind me about where exactly the idea came from that we would make it into a duo, but I think it might have been that you were just like, "Hey." I had written It Flows for you two, and it might have been just natural that it turned into another duo.

Andrew Hutchens: So, I think this goes back into how we have this long history of working together and collaborating. Daniel and I are always looking for different pieces and different mediums. The quartet version was specifically commissioned as a mixed chamber ensemble to create a diverse palette of works for this project. But you can only play that in so many venues. You have to find a bass clarinet player and pianist. But Daniel and I can travel anywhere, instrument permitting. And we know you're a great composer and collaborator, and we thought that the piano and the marimba could easily condense, and the bass clarinet and the bari sax could be condensed. One of the things that we had talked about, as we got into the process of discussing instrumentation for the quartet is our shared interested in instrumentations that have really similar timbral centers. So, the bass clarinet and the bari sax have very similar ranges, even though the bass clarinet and the clarinet have some of the widest ranges. They have really close timbres because of the ranges that they can do. The piano and the marimba, both keyboard instruments, and can function the same ways. So, it would be really easy to pair those and create a harder version for the individual. But we still need another element, which would make it more portable and create much more inclusivity for groups wanting to play it. Electronics

So the question then becomes how did you decide what to put where, when you're taking four parts of different timbre instruments, and making it two parts and electronics?

Stephen Karukas: Totally, yeah. I think actually from my original conception of this piece, a duo version almost seems wrong, because I originally was like, "Oh yeah. I love having these pairs of instruments." Especially the woodwinds just stepping over each other, especially like at 206, where it's the slap-tongue part. There, it's stepping over each other in range. I love things like that.

Andrew Hutchens: Yeah, because in its essence, the quartet version is two duos. And so that's what's unique about it. There are parts where the piano and marimba are really together, and they're playing almost in complete unison. Almost all the time, the Bass clarinet and the Bari sax are locking in with each other in a hocket. We are not often

playing in unison, but we're interlocking within that. And the other two members of the ensemble are providing the motor behind that. So, the conceptualization of the two duos creates a macro-duo, if you will.

Stephen Karukas: So, yeah. There's the one part of yeah, it's a quartet. How do you turn it into a duet? It's already like a duo, but it was actually easier because of that fact, because the parts were interlocking. I blended the Bass clarinet/Bari sax and piano/marimba parts together as much as possible. The electronics gained some excess material that was leftover, but it was really made up of new material that complemented the saxophone and marimba. Mainly effects and some light harmonic material. The parts did become expanded and therefore more difficulty. It's good that I did this, actually, because you wanted the duet part to be a little more exciting. So it was a lot of just unifying those lines.

Andrew Hutchens: I think the premise is that two duo parts condensed into each other. So, Bass clarinet and Bari sax condensed. And then the piano and the marimba condensed. And then there's some outlier notes and things in there that just made their way into other parts. And then the electronics themselves became the supporting role, sometimes taking on the main roles sometimes. Correct?

Stephen Karukas: Yeah. There was the keyboard instruments and the woodwind instruments. And for the most part, I just ended up keeping the woodwind parts in the saxophone and keeping the keyboard parts in the marimba. And it's blending them together. But in some sections, I really wanted to have both acoustic instruments playing together. So, I'm not able to think of the part, but there's a few instances where I actually took the bass clarinet part and put it in the marimba. Things like that. But for the most part, it was condensing those two duets. I started with the electronics filling in the gaps of what needed to be added, but then I started adding more layers on that, which is how I ended up with more percussive stuff.

Andrew Hutchens: What's interesting, that happened when you combined these parts is we talked about, again, making the part a little bit more exciting, because we have two parts and electronics, versus four parts. One of those ways was creating longer phrase structures. Something that you added were accents within that phrase structure. And so that outlines the melodic structure.

For example, measure 19. Yeah. 19, anywhere that comes up. You have accents that outline the melodic structure. But those accents also create this disjunct meter within it. But it goes right along with what the marimba is doing. But it doesn't feel disjunct, unless you're playing the straight notes that the Bari sax is. In some ways there's this metric dissonance happening throughout a lot of these motives in the piece.

Stephen Karukas: Yeah. I guess, the beginning of the piece is you don't know where the time is, really, because you're playing in groups of three, but you're offset by an eighth note. And there's all these 3/4s or 9/8s in there. And then 19 through 32 is pretty much a transition into making more metric sense. So, yeah. There's definitely a lot of, like you

said, rhythmic dissonance in there. Even in the keyboard parts, or really the marimba here. It's a half note beat, but then the Bari sax is all in threes.

So, it starts with a group of three. Three plus two. Yeah. And then later when it goes to those sixteenth notes in the marimba, like 3/4 and 3/8. These groups of three are the clash there.

Andrew Hutchens: Yeah. So, every time you have these accents in a part that is offset the section is in simple meter. Eventually just compress themselves back to the original meter to set up another form. So, it's almost as if you're thinking of it, in a tonal harmony setup, as a link. But you're using accents to link a form together.

Stephen Karukas: Yeah. I think I see what you're saying. Yeah. There's an intentional motion to and from this rhythmic dissonance that sort of resolves at the 5/8.

Andrew Hutchens: I think that comes across really good. So, let's dive now into the electronics just a little bit. I want to know your process in creating a little bit, because you have such a big background in technology. How did that influence what you're doing with this?

Stephen Karukas: You know, I don't know if it did, because I didn't write a program to make the electronics or anything. I actually was a little lazy with them, which I think was pretty helpful. I would say that it really helped me. I hadn't really written a lot of electronic music before, so this was a good opportunity to dive into it, but I had taken some classes in electronic music when I was in school. So, I knew about how to do the things, but in a way this was pretty new to me, actually. So, I'm not even sure that I can say that this was something I was set up well for, but I knew that it was something I should do because it just felt like a really exciting possibility. Once I got a few demos out, I knew it was the right choice. Once I got a few of those sections flushed out with electronics, I thought it sounded great.

I was trying to figure out how can I fill in these gaps of the piano's going to be gone, the bass clarinet's going to be gone. So, for the piano a lot of what I did there was I used this prepared piano sample pack, which is basically a very noisy version of a piano. It's got the piano sounds on top of it, but then there's some noise. Some really unique noises for each key, for each pitch that are attached to it. And that was a really cool thing to play with, because it was like you're playing with a drum set and you're playing with a piano at the same time. That's probably the most prominent feature of the electronics in the duo and electronics version.

This is a bit spacey, but my ideas about musical aesthetic have definitely changed now that I have spent more time with technology, and typing a command and seeing the text flow, like the stereotypical image of a program where they type a command and it prints a bunch of output, and it's a black screen with white text. It's just going all the way up. That kind of mechanical or automated experience has ... I think it's shifted my aesthetic, actually. So, there's a lot of noise in the piece that's created by some FM synths, that I wanted to sound really mechanical. To really get across the idea that whatever this electronics part is, whatever this music is, is greater than a human. It's more powerful and you just have to submit to it. So, that's how I wanted to get across the fears, by making the electronics pretty intense.

It's worth mentioning that a lot of the electronics in this piece were inspired by some music that I'm a fan of, some music that I listen to. I recently got into some electronic, experimental techno. And a lot of the electronics in this piece were actually inspired by some music by Grischa Lichtenberger and also Andy Stott, who are two producers that make similar noisy sounds. That's where my mind was. That was my soundtrack that summer, and it still is today. I listen to these guys all the time and it just shaped my aesthetic, more so than the experience of doing technology itself, is this listening to this music that was, at least to my understanding ... I've read a little bit about these producers. To my understanding, it's about living in a city, and it's about this mechanical life. It sounds like it's mechanical. It sounds like it's a printer, or it sounds like it's a train, which I think is really interesting. I just wanted to replicate that in the electronics part.

Andrew Hutchens: Yeah. I think I can hear that clearly. I find the electronics to be a supporting third performer that adds effects that grabs creates extra layers within the texture. It really grabs the audience's attention.

You use slap tongue pretty frequently in both the quartet and duo versions. This effect radically shifts the texture and timbre throughout the piece. Your use of it also changed between the quartet and duo versions. Can you speak on your use of slap tongue in both versions and the creation of different textures with the slap?

Stephen Karukas: It's actually a pretty simple answer. I wanted to provide some sound that's a little more sinister. And I think the way to accomplish that was to get something that contained that same amount of energy that was in the previous section or the rest of the piece. The rest of the piece is pretty intense. I wanted to have something that was high energy, but the actual melody of it is sneaky, and it's a bit in the background. I figured if it was just a drop down to piano or mezzo piano, it might be hard for some of those notes to speak with the intensity I wanted them to. So, I was looking for a sound that's clack-y, or funky and sharper, but also a bit lighter when it comes to comparing it to what it could be. I guess when I say what it could be, I mean right at 206, 207, and basically throughout this whole section, there's these crescendos to a low note. And actually, in the quartet version I write that as slap tongue too, and that transitions out of it. But the idea is just to have a contrast between these softer, really short chattering's of the woodwinds and then when they hit these low notes, it's like bam. They just emerge from this little ball and get really intense, and then go back in. I don't know if that's at all a meaningful thing though

Andrew Hutchens: Yeah. That makes sense. It's almost as if it's an outburst. I think it ties back into that narrative of this revelation that this person had on the bus. It's a form of outburst, maybe not as robust, but something that definitely attracts attention.

Stephen Karukas: Yeah

Andrew Hutchens: In the duo, specifically at 220, the saxophone part its much busier than in the quartet. It is essentially a running line of slap tongue. This is probably the largest change in the saxophone part between versions. In the quartet part, the bass clarinet part is more active in that moment. And then the Bari sax has the slaps, and then the low notes on the beat. The interesting part here is once again the accents. The accents once again outline the off kilter metric qualities of the section, but here you have marked them with *tenutos* and to not be slapped.

Stephen Karukas: Yeah. Sorry.

Andrew Hutchens: It's a really neat effect. Can you explain that?

Stephen Karukas: Yeah. I just thought it was cool. Whenever I listen back to this section, for some reason it sounds to me like it's in 3/4. It is in 3/4, but nothing is hinting at that at all. And I was really happy to get that sort of result from this. 3/4 or 6/8, I guess. I was really happy to get that result from this, because I want it to sound super off-kilter, but there's also this chugging along feeling to it. I think in the duo version, there actually are some things that hint more at it being in 3/4. Maybe there's a click on beat three or something. My main reason for having all these weird accents is actually to make the parts interlocking. And it's not perfect, but if you look at a fair bit of the eighth notes in a section of four bars, they're alternating between different instruments. It's actually not as much the case as I thought, but I wanted to ... Oh, this is what it is. The electronics fill in a lot of the eighth notes that aren't accented by the instruments. So, basically every eighth note. Something is happening that's a new sound.

Andrew Hutchens: I will agree that a large difference between the quartet and the duo comes in the electronics. And that should be pretty obvious, because it's a new factor in there. But rhythmically and metrically, it plays such a large role because it puts these clicks and these little white noise elements and static right in the spots where you would either expect something to be for this rhythmic stability or where you exactly not expect it to be. To decrease the stability of everything. Luckily, the performer has the luxury of a click in their ear. So, as the performer in this section, it feels super stable when you hit those accents. You can do it. Any performer can hear those little subtle things in there, but you're locked into this 3/4 in there. We're not really focused on this long-scale polyrhythm that's happening, although it is important to know it is there.

But the electronics take an even playing field to what everything in the quartet played, I think. When you listen the electronics alone they are obviously missing something, because you just hear these clicks, this white noise, and empty space. When you add the other parts it just gels, and you understand that the click is with this. The white noise, even though it doesn't line up, it's meant to cause this. And a lot of times, those sounds are super intentional and meant for the performer. Other times, they're just meant for the

audience. Those are the things that we can pick up just by hearing in the in-ears. Now, when we go back out and listen to ourselves do it, this sound world that we've created with the acoustic instruments and the electronics together create a much different story than the quartet.

Stephen Karukas: Yeah. You said it pretty well. Basically, what I did for this duet is I added a drum set part, or a percussion part, and then I put it in the electronics. Not explicitly, but that's the effect that it ended up having.

Andrew Hutchens: You know, that's a great way of thinking about it that's as simplistic as it gets. I hear that now. It's like the biggest electronic drum set that you could actually get.

Stephen Karukas: Yeah. I found with the electronics, I could do a lot of things that I wasn't able to do with the instruments, which can explain some of the changes. Quite a few of the shapes of the electronic sounds are coming from nothing and getting really loud, which I think actually woodwinds can do pretty well, but on such a small scale the electronics are just able to go from nothing and just zip up to some sort of intense moment. And oftentimes, what they're zipping up to, what they're crescendo-ing to is some sort of hit in the instruments. So, things like that are things that I was able to achieve with the electronics. I don't think I'd be able to achieve with the instruments as well, like in the quartet.

Andrew Hutchens: Yeah. The piece actually functions as a trio, the electronics being the third part, because it's so integrated into creating this sense of rhythmic unison, rhythmic dissonance. A harmony, not so much in the mix in the electronics part, except for supporting these bass notes in parts. It's really much more of a rhythmic electronic part, I would say. Wouldn't you?

Stephen Karukas: Yeah, I think so.

Andrew Hutchens: It's a great note to say that this duo should not be limited by the electronics. The electronics function as an extra part. So, finding that balance takes time. It's not one of the pieces that you can just plug and play at the last minute. It takes time to find the correct balance, especially because the form of the piece progresses so much within all the parts. So, it took us a decent amount of time, the last time we played it, to just get the levels of it and find how each section of the piece was going to interact with it. And then you ultimately have to make a decision of what's it going to be. It's a give and take. As a performer, you have to know where to do both things. I have to know that when I do the slap tongues, those are going to come out softer. So, do I bump those up? Who bumps up where? And those performing it after, this is a great tool for them. When we record the piece, the same thing applies. It is a duo, but it is actually the trio.

Bumping back to the quartet version, it's got its own set of problems when performing. You are dealing with four people. And then those people are playing in unison. So, when we performed that one, the metric issues present itself much more. With that one, the percussion and piano duo are your driving force. And if they are not together, then nobody's together.

Stephen Karukas: These are all great points that performers should know. That's what I want. I mean, that's what I want all my music to be, honestly. For this one, I took away the harmonic complexity and added the complexity to the rhythm. One thing for the electronics that I did was I sampled the live performance of the quartet version. I don't know if you know this, but there's some crescendo bits in the tag at the end.

Andrew Hutchens: Oh. That was our live performance?

Stephen Karukas: That was your live performance. Yeah. There's a sample. It's a half note sample or something that. There's a long multiphonic that's always stretched out. And there's also these shorter segments that are the crescendo-ing eighth notes that I sampled and put in various places around the electronics. Fun fact.

Andrew Hutchens: Really Cool! I'm glad it sounded like that.

APPENDIX E

NOTES FROM THE COMPOSER: INTREPID ELECTRONICS

The digitally-created audio accompaniment for "Intrepid" has few literal or strictly programmatic elements, but rather aims to evoke and support the emotional narrative of the piece. Many different sound sources and processing plug-ins were used in the creation of the sound world. We will break down each section one at a time and take a closer look at the techniques used in the sound design.

Overall technical notes:

- The composition and mixing of the digital accompaniment took place in the composer's home studio office.
- All sequencing and effects were done "in-the-box" inside Logic Pro X. A wide variety of plug-in effects and synthesizers were used.
- The processed snare drum (5:30-6:30) was recorded in a professional recording studio in Nashville.
- Mastering was done by Nick Mason of Mason Audio Solutions.

I. Dreaming (0:00-2:00)

- The syncopated bass ostinato was created using Output Substance, a bass-specific soft synthesizer. The irregular pattern conveys a sense of tension or unease with one's current situation, leading one to dream of other worlds.
- A light soundscape was created using an audio sample of gentle wind, layered on top of a descending Shepard tone.
- Combined with the pining, repetitive melody in the saxophone part, the overall effect of this section is that of a young would-be explorer, at unease with their current home and situation, dreaming of leaving and starting a new life.
- The sampled drums have been treated heavily for an intense, fun, and "squashed" character. Heavy use of compression and distortion, as well as bit of room reverb, was key in achieving this sound.

II. Exodus (2:00-3:00)

- The main goal of this section is to build tension, as the "dream" becomes a reality through great effort.
- The first half (2:00-30) features a sampled hi-hat that is run through a resonator (kHs Resonator), giving the hi-hat an almost "auto-tuned" effect to contribute to the harmonic content. The same effect is used on drums elsewhere in the piece.
- The syncopated rising bass ostinato was created using Output Signal, a soft synth that specializes in rhythmic textures.

- At 2:30, a running bass line enters. This was also generated using Output Substance. Many different parameters are automated to help the sound evolve and build throughout the section.
- Throughout the rest of this section, many distorted wind samples are layered on top of one another to create a soundscape evocative of a rocket launch.

III. Wandering (3:00-5:38)

- As the rocket-launch soundscape reaches its apex, we finally break free of the atmosphere, and we begin drifting through space.
- As the wind dissipates, a soft flurry of synthesizer notes gradually enters the texture, evoking a starry light-speed experience.
 - This synthesizer loop was created using Kilohearts Phase Plant, a creative soft synth with many similarities to the more popular Serum.
 - This is then processed using an auto-panning plug-in (the speed of which is manipulated throughout), a resonant distortion, and two layers of reverb.
 - A "smearing" effect is used to convey some of the visual and time distortions associated with high-speed space travel. This is achieved using a fascinating reversing plug-in called Backmask by Freakshow Industries. When the mix knob is turned up, the synth loop seems to smear and blur.
- After a long period of "wandering", something in the bizarre synth space seems to "respond" to the saxophone. That sound is a reversed cello sample, created inside a soft synth called Output Rev.
- That communication continues until a "breakthrough" occurs (4:50), which is indicated quite literally with a sound effect created using a recording of glass breaking.
- After the breakthrough, a different synthesizer begins to swell. This is a softwaremodeled version of the Yamaha CS-80, known for its massive and recognizable sound, and used famously by Vangelis on the soundtrack to the movie Blade Runner. This simply conveys a certain science-fiction quality to the piece, as things are about to become much stranger.

IV. Contact (5:38-6:38)

- The primary effect in this section is that of a "conversation" between the saxophone and a bizarre, "alien"-like sound. That sound was created by recording three different snare drums playing jarring, rhythmically complex figures. The recordings were then heavily processed using delay, resonators, distortion, compression, and reverb, to render them almost unrecognizable.
- The choice to use a snare drum was made in order to convey a sense of intensity, of size, and of something totally different in nature than the saxophone. The saxophone should feel small and plain in comparison to the processed drums.
- A background soundscape was created using a recorded delay from the demo MIDI sax. This should give a faint impression that the saxophone is being liveprocessed, putting it in an other-worldly space.
- As the "conversation" progresses and ultimately concludes, tension gives way to elation as the high saxophone note is supported with joyous chords in the CS-80.

V. Integration (6:38-end)

- The goal of this section was to create a feeling of "transformation" the saxophone has been changed and recontextualized in a way that is strange, but not unpleasant.
- As the sampled drums play a drum-and-bass-like groove that attempts to convey a sense of velocity, the saxophone enters in tandem with chords from the CS-80. The effect should be that of the saxophone being run through a vocoder- one note of input generates many notes of output an "alien" effect.
- After the saxophone and CS-80 finishes its breathless sequence of phrases, the drums build to a final impact, with the help of the kHs Resonator from earlier.
- The ultimate effect is that the "subject", represented by the saxophone, met with an "alien" entity, and was transformed into something new. Though the subject doesn't seem to mind, the audience may be left with a sense of unease. Was this transformation consensual? Is it permanent? Did the subject expect to ever return home? The subject began the piece dreaming of a new life, and one way or another, the subject got what it wanted.⁵⁰

⁵⁰ Russell Wharton. Intrepid electronics. Email correspondence, September 04, 2023

APPENDIX F

SAMPLE COMMISSIONING CONTRACT TEMPLATES

MUSIC CONSORTIUM COMMISSIONING AGREEMENT

This is a COMMISSIONING AGREEMENT (hereinafter referred to as AGREEMENT) between [INSTERT NAME] (hereinafter referred to as COMPOSER) and [INSTERT NAME] (hereinafter referred to as COMMISSIONER) for a new music composition via a consortium commissioning agreement.

COMPOSER and COMMISSIONER hereby agree as follows:

1a. COMMISSIONING AGREEMENT

Subject to the terms and conditions of this AGREEMENT, COMMISSIONER requests COMPOSER to write a work for [INSERT INSTRUMENTATION] (hereafter referred to as SCORE), of approximately [INSERT LENGTH] in total duration including any and all movements/segments or silences/breaks between sections.

COMPOSER warrants that to the best of their knowledge that I. the SCORE is an original composition and II. COMPOSER is legally authorized to enter into this agreement, including obtaining any necessary permissions or licensing for usage of text, etc.

1b. COMMISSIONING CONSORTIUM

The SCORE shall be commissioned by COMMISSIONER as part of a consortium commissioning agreement (hereafter referred to as CONSORTIUM). The joining period for the CONSORTIUM shall be: [INSERT CONSORTIUM WINDOW]

COMMISSIONER shall assume responsibility for soliciting members (hereafter referred to

as CONSORTIUM MEMBERS) to join the project, as outlined by the terms in this agreement.

2a. DELIVERY AND DEADLINES

COMPOSER will deliver the SCORE to COMMISSIONER by [INSERT COMMISSIONER DELIVERY DATE].

COMPOSER will provide COMMISSIONER with progress/updates on the SCORE leading up to said deadline. Additionally, revisions or adjustments to the SCORE may be requested by dates agreed upon by both parties.

COMPOSER will deliver the SCORE to CONSORTIUM MEMBERS by [INSERT CONSORTIUM DELIVERY DATE].

3a. PAYMENT

COMMISSIONER agrees to pay COMPOSER a minimum total fee of [INSERT FEE].

In the event that the CONSORTIUM is particularly successful, and the monies collected from CONSORTIUM MEMBERS exceeds the minimum total fee as outlined above, COMPOSER and COMMISSIONER will mutually agree on how to use the surplus funds.

3b. CONSORTIUM PAYMENT

The agreed upon fee(s) for consortium members is as follows:

I. STUDENT: [INSERT CONSORTIUM ENTRY FEE]

II. PROFESSIONAL: [INSERT CONSORTIUM ENTRY FEE]

CONSORTIUM MEMBERS shall join the consortium by making payments to COMPOSER via PayPal on COMMISSIONER's website, COMPOSER's website, or directly to COMPOSER's PayPal account [INSERT PAYMENT DELIVERY METHOD]

COMMISSIONER assumes responsibility for the full amount of the minimum payment, and COMMISSIONER understands that it is COMMISSIONER'S sole responsibility to enlist CONSORTIUM MEMBERS, though COMPOSER will make a reasonable effort to engage them also. COMMISSIONER hereby agrees to pay the remaining amount of the minimum total fee in the event that the total monies collected for the consortium does not meet the target amount of [INSERT FEE], due upon delivery of the SCORE. COMMISSIONER may make payment either by mailed check (to the COMPOSER's address at the end of this agreement), or via PayPal account.

4. DATE OF WORLD PREMIERE

The publicized world premiere of the score by COMMISSIONER shall be [INSERT ANTICIPATED PREMIERE DATE...OPTIONAL].

5. PERFORMANCE EXCLUSIVITY AND PERFORMANCE OBLIGATIONS

COMMISSIONER will have the exclusive right to give the world premiere of SCORE and to perform the SCORE an unlimited number of times for a period of [INSERT EXCLUSIVITY LENGTH. TYPICALLY, 1 YEAR] from the date of the delivery of the score (INSERT DATE OF SCORE DELIVERY).

Once COMMISSIONER has performed the world premiere, CONSORTIUM MEMBERS will have the exclusive right to perform the SCORE an unlimited number of times for a period of [INSERT LENGTH OF EXCLUSIVITY] from the date of the WORLD PREMIERE of the score [INSERT ANTICIPATED WORLD PREIMERE DATE].

After said exclusivity period, the COMPOSER will have the right to rent, sell, or distribute the SCORE to any third parties for performance or publishing. The COMMISSIONER and CONSORTIUM MEMBERS shall receive and maintain appropriate credit on any and all performance materials in perpetuity (see article 6).

COMPOSER will not license the SCORE for other performances during the exclusivity period. All other rights are reserved for COMPOSER'S unlimited use once the exclusivity period has ended.

If, for any reason, COMMISSIONER fails to give the world premiere within the exclusivity period, COMMISSIONER forfeits the sole right to give the world premiere and COMPOSER may choose to engage with other performers and/or presenters to give the world premiere, as reinforced by the terms in this section.

6. WRITTEN CREDITS

I. COMMISSIONER AND CONSORTIUM CREDIT

The SCORE and all applicable parts shall bear on the title page:

Commissioned by and dedicated to a consortium of [insert number] saxophonists [INSERT COMMISSIONER NAME], Lead Commissioner

In the front matter of the SCORE, there shall be a complete list of names of CONSORTIUM MEMBERS. This list will remain in the score/front matter in perpetuity, regardless of updated versions or different publications.

COMMISSIONER shall also be acknowledged accordingly in any and all press releases, program books, and other written or promotional materials which involve performance of the SCORE, whether involving COMMISSIONER or third parties. COMPOSER will make reasonable efforts to ensure said acknowledgment, and will make reasonable efforts to acknowledge CONSORTIUM MEMBERS whenever possible. COMPOSER will not be held liable to COMMISSIONER for any licensee's failure to make said acknowledgements.

II. COMPOSER CREDIT

COMMISSIONER agrees to acknowledge COMPOSER in any and all press releases, program books, publicity, and written or promotional materials, whether in print or electronic format, which involve performance of the SCORE, with such verbiage as "[INSERT COMPOSER CREDIT VERBAGE]."

COMMISSIONER will make reasonable efforts to ensure said acknowledgment, and COMMISSIONER will not be held liable to COMPOSER for any presenting company's failure to make said acknowledgements.

7. DISTRIBUTION OF SCORE

COMPOSER will provide the SCORE to COMMISSIONER and CONSORTIUM MEMBERS in **ELECTRONIC**

format for use only by COMMISSIONER/CONSORTIUM MEMBERS.

COMMISSIONER/CONSORTIUM MEMBERS may make an unlimited amount of physical copies of the SCORE for the COMMISSIONER/CONSORTIUM MEMBER's

use only.

Sharing of electronic or hard copy materials for the SCORE, including the full score and parts, with any third parties (including outside performers and presenters) is strictly prohibited, as indicated by US Copyright Law.

If third parties express interest in the SCORE, COMMISSIONER/CONSORTIUM MEMBERS will direct them to contact COMPOSER.

8. ARCHIVAL & PROMOTIONAL RECORDING

COMMISSIONER agrees to, at minimum, provide an archival quality audio recording of the world premiere performance to the COMPOSER. COMMISSIONER will also make reasonable effort to provide a video recording of the world premiere performance.

COMMISSIONER shall have the right, at their own expense, to record a performance (audio and/or video) of the SCORE for archival and/or promotional purposes. COMMISSIONER shall acknowledge COMPOSER as the creator of the SCORE in any such recordings.

COMMISSIONER shall notify COMPOSER of intent to publish such recordings and COMPOSER reserves the right to decline permission for reasons such as performance accuracy or recording quality.

COMMISSIONER will make available any such recordings/files to COMPOSER upon request, so that COMPOSER may also use them for archival and promotional purposes.

COMMISSIONER shall have the right to distribute the video on the internet, contingent on the COMPOSER'S approval, including websites such as YouTube, SoundCloud, Facebook, Instagram, Twitter, and on the COMMISSIONER'S own website.

COMPOSER reserves the sole right to claim monetization on any and all such recordings.

If the COMMISSIONER intends to release a professional recording of the SCORE (such as on an album), the COMMISSIONER will abide by terms outlined in section 9.

9. PROFESSIONAL RECORDINGS

COMPOSER shall remain the sole owner of the copyright of the SCORE. The

COMMISSIONER reserves the right to release the premiere professional recording of the SCORE within [INSERT COMMISSIONER RECORDING EXCLUSIVITY LENGTH] of delivery of the SCORE.

If/when COMMISSIONER elects to record and release the premiere professional recording of the SCORE, CONSORTIUM MEMBERS will have the exclusive right to professionally record/release the SCORE for a period of [INSERT CONSORTIUM RECORDING EXCLUSIVITY LENGTH] from the date of the DELIVERY of the score.

The mechanical license fee for recording the SCORE shall be waived for the COMMISSIONER and each CONSORTIUM MEMBER. In future engagements with the piece, performers (who are not COMMISSIONER or CONSORTIUM MEMBERS) shall be required to obtain a mechanical license to professionally record the piece.

COMMISSIONER and CONSORTIUM MEMBERS will make available any and all such recordings/files of said professional recording to COMPOSER upon request.

COMPOSER reserves the sole right to claim monetization on any and all such recordings.

If the COMMISSIONER intends to release a professional recording of the SCORE (such as on an album), the COMMISSIONER will abide by terms outlined in section 9.

10. PROFESSIONAL RECORDINGS

COMPOSER shall remain the sole owner of the copyright of the SCORE. The COMMISSIONER reserves the right to release the premiere professional recording of the SCORE within [INSERT COMMISSIONER RECORDING EXCLUSIVITY LENGTH] of delivery of the SCORE.

If/when COMMISSIONER elects to record and release the premiere professional recording of the SCORE, CONSORTIUM MEMBERS will have the exclusive right to professionally record/release the SCORE for a period of [INSERT CONSORTIUM RECORDING EXCLUSIVITY LENGTH] from the date of the DELIVERY of the score.

The mechanical license fee for recording the SCORE shall be waived for the COMMISSIONER and each CONSORTIUM MEMBER. In future engagements with the piece, performers (who are not COMMISSIONER or CONSORTIUM MEMBERS) shall be required to obtain a mechanical license to professionally record the piece.

COMMISSIONER and CONSORTIUM MEMBERS will make available any and all such recordings/files of said professional recording to COMPOSER upon request.

If, for any reason, COMMISSIONER fails to give the premiere professional recording within the exclusivity period, COMMISSIONER forfeits the sole right to give the premiere recording and COMPOSER may choose to engage with other performers to give the premiere recording.

The COMPOSER shall receive appropriate credit on any such electronic and physical materials pertaining to the recording. If the event of a commercial release, the terms will be determined between COMPOSER and COMMISSIONER and/or CONSORTIUM MEMBERS at that time.

Any negotiations pertaining to recording or synchronization licenses that may be required for distribution in connection with radio, television, or other outlets will also be negotiated between COMPOSER and COMMISSIONER/CONSORTIUM MEMBERS at that time.

All rights herein not granted to COMMISSIONER or CONSORTIUM MEMBERS are reserved to the COMPOSER.

11. ASSIGNMENT

Each party agrees that it shall not assign this letter AGREEMENT or any of the rights granted in this AGREEMENT without the prior written consent of the other. This AGREEMENT shall inure to the benefit of and shall be binding on the heirs, legal representatives, successors, and assigns of each party.

a. GOVERNING LAW

This AGREEMENT shall be governed by the laws of the [INSERT GOVERNING STATE, COMMONWEATH, ETC].

b. INDEPENDENT CONTRACTOR

COMPOSER is an independent contractor in relationship with COMMISSIONER. This AGREEMENT shall not be understood as an employer/employee or principal/agent relationship, partnership, or joint venture between parties.

c. TAXES

Any taxes required to be withheld and/or paid under any local, state, or federal laws including but not limited to FICA and income taxes, shall be COMPOSER'S sole responsibility. COMPOSER agrees to indemnify and hold harmless COMMISSIONER with regard to the aforementioned tax obligations.

d. NONFULFILLMENT OF TERMS

If COMPOSER fails to fulfill the terms of this AGREEMENT for any cause beyond their control, including but not limited to illness or accident, family tragedy, and/or unforeseen acts of nature, their sole liability to COMMISSIONER shall be the forfeiture of any sums owed in accordance with section 3. In the event the COMMISSIONER elects to not fulfill this contract, they forfeit any payments already made as outlined in section 3. COMMISSIONER is also entitled to cancel and terminate this AGREEMENT, or suspend the world premiere performance, in case of war, rebellion, terrorism, strike, fire, flood, or any "Act of God" or other circumstance beyond control, making the completion of this AGREEMENT impossible.

e. INDEMNIFICATION

COMPOSER does hereby indemnify and hold harmless COMMISSIONER (and its employees, agents, directors, and representatives) from any and all claims, liabilities or damages, including cost of litigation and attorney's fees, incurred by or arising from the performance of duties under this AGREEMENT, except for claims, liabilities, or damages arising from the gross negligence of COMMISSIONER and its employees, agents, directors, and representatives.

f. ARBITRATION

In the case of any controversy or claim arising out of or relating to this AGREEMENT, or breach of this AGREEMENT, a good faith negotiation shall first occur between COMPOSER AND COMMISSIONER to resolve the disagreement. If a resolution is not reached, the disagreement shall be settled by arbitration, in [INSERT GOVERNING STATE, ETC], in accordance with the rules of the American Arbitration Association. Judgment upon the award rendered by the arbitrators may be entered into any court having jurisdiction. In any such action, the prevailing party shall be entitled to recover reasonable attorney's fees. If the above provisions meet your understanding of our AGREEMENT, please sign one copy of this document and return to COMMISSIONER at the address below or via email.

g. MODIFICATIONS

Modifications or amendments to this agreement may be made. Any such modification must be in the form of a written rider to this contract, countersigned and dated by both the COMPOSER and COMMISSIONER.

AGREED AND ACCEPTED BY:

| | COMPOSER | | COMMISSIONER |
|-------------|------------------------------|----------|--------------|
| PRINT | | PRINT | |
| SIGN | | SIGN | |
| EMAIL | | EMAIL | |
| ADDRES S | | ADDRSESS | |
| | INDEPENDI COMMIS AGREE | SIONING | |

This is a COMMISSIONING AGREEMENT (hereinafter referred to as AGREEMENT) between [INSERT COMPOSER NAME] (hereinafter referred to as

COMPOSER) and [INSERT COMMISSIONER NAME] (hereinafter referred to as COMMISSIONER) for a new music composition via a consortium commissioning agreement.

COMPOSER and COMMISSIONER hereby agree as follows:

1. COMMISSIONING AGREEMENT

Subject to the terms and conditions of this AGREEMENT, COMMISSIONER requests COMPOSER to write a work for [INSERT INSTRUMENTATION] (hereafter referred to

as SCORE), of approximately [INSERT LENGTH] in total duration including any and all movements/segments or silences/breaks between sections.

COMPOSER warrants that to the best of their knowledge that I. the SCORE is an original composition and II. COMPOSER is legally authorized to enter into this agreement, including obtaining any necessary permissions or licensing for usage of text, etc.

2a. DELIVERY AND DEADLINES

COMPOSER will deliver the SCORE to COMMISSIONER by [INSERT SCORE DELIVERY DATE].

COMPOSER will provide COMMISSIONER with progress/updates on the SCORE leading up to said deadline. Additionally, revisions or adjustments to the SCORE may be requested by dates agreed upon by both parties.

COMPOSER will deliver the at least fifty (50) percent of the SCORE, in a working draft form, by the date of [INSERT DRAFT DELIVERY DATE]. This may be done in smaller percentages with an overall total of fifty percent.

3. PAYMENT

COMMISSIONER agrees to pay COMPOSER a total fee of [INSERT FEE].

COMMISSIONER agrees to pay COMPOSER in two installments of [INSERT FIRST INSTALLMENT FEE]; one prior to [DATE DUE], one at the delivery of the final SCORE.

In the event of financial burden, the COMMISSIONER reserves the right to initiate a consortium with guidelines to be agreed upon with the COMPOSER.

INSTALLMENT FEE]; one prior to [DATE DUE], one at the delivery of the final SCORE.

In the event of financial burden, the COMMISSIONER reserves the right to initiate a consortium with guidelines to be agreed upon with the COMPOSER.

4. DATE OF WORLD PREMIERE

The publicized world premiere of the score by COMMISSIONER shall be [INSERT ANTICIPATED WORLD PREMIERE DATE]

5. PERFORMANCE EXCLUSIVITY AND PERFORMANCE OBLIGATIONS

COMMISSIONER will have the exclusive right to give the world premiere of

SCORE and to perform the SCORE an unlimited number of times for a period of [INSERT PERFORMANCE EXCLUSIVITY LENGTH] from the date of the delivery of the score [INSERT SCORE DELIVERY DATE].

After said exclusivity period, the COMPOSER will have the right to rent, sell, or distribute the SCORE to any third parties for performance or publishing. The COMMISSIONER shall receive and maintain appropriate credit on any and all performance materials in perpetuity (see article 6).

COMPOSER will not license the SCORE for other performances during the exclusivity period. All other rights are reserved for COMPOSER'S unlimited use once the exclusivity period has ended.

If, for any reason, COMMISSIONER fails to give the world premiere within the exclusivity period, COMMISSIONER forfeits the sole right to give the world premiere and COMPOSER may choose to engage with other performers and/or presenters to give the world premiere, as reinforced by the terms in this section.

6. WRITTEN CREDITS

I. COMMISSIONER CREDIT

The SCORE and all applicable parts shall bear on the title page:

Commissioned by and dedicated to [COMMISSIONER NAME].

COMMISSIONER shall also be acknowledged accordingly in any and all press releases, program books, and other written or promotional materials which involve performance of the SCORE, whether involving COMMISSIONER or third parties. COMPOSER will make reasonable efforts to ensure said acknowledgment. COMPOSER will not be held liable to COMMISSIONER for any licensee's failure to make said acknowledgement

7. DISTRIBUTION OF SCORE

COMPOSER will provide the SCORE to COMMISSIONER in **ELECTRONIC** format for use only by COMMISSIONER.

COMMISSIONER may make an unlimited amount of physical copies of the SCORE for the COMMISSIONER use only.

Sharing of electronic or hard copy materials for the SCORE, including the full score and parts, with any third parties (including outside performers and presenters) is strictly prohibited, as indicated by US Copyright Law.

If third parties express interest in the SCORE, COMMISSIONER will direct them to

contact COMPOSER.

8. ARCHIVAL & PROMOTIONAL RECORDING

COMMISSIONER agrees to, at minimum, provide an archival quality audio recording of the world premiere performance to the COMPOSER. COMMISSIONER will also make reasonable effort to provide a video recording of the world premiere performance.

COMMISSIONER shall have the right, at their own expense, to record a performance (audio and/or video) of the SCORE for archival and/or promotional purposes.

COMMISSIONER shall acknowledge COMPOSER as the creator of the SCORE in any such recordings.

COMMISSIONER shall notify COMPOSER of intent to publish such recordings and COMPOSER reserves the right to decline permission for reasons such as performance accuracy or recording quality.

COMMISSIONER will make available any such recordings/files to COMPOSER upon request, so that COMPOSER may also use them for archival and promotional purposes.

COMMISSIONER shall have the right to distribute the video on the internet, contingent on the COMPOSER'S approval, including websites such as YouTube, SoundCloud, Facebook, Instagram, Twitter, etc, and on the COMMISSIONER'S own website.

If the COMMISSIONER intends to release a professional recording of the SCORE (such as on an album), the COMMISSIONER will abide by terms outlined in section 9.

9. PROFESSIONAL RECORDINGS

COMPOSER shall remain the sole owner of the copyright of the SCORE. The COMMISSIONER reserves the right to release the premiere professional recording of the SCORE within [INSERT RECORDING EXCLUSIVITY LENGTH] of delivery of the SCORE.

The mechanical license fee for recording the SCORE shall be waived for the COMMISSIONER. In future engagements with the piece, performers (who are not COMMISSIONER) shall be required to obtain a mechanical license to professionally record the piece.

COMMISSIONER will make available any and all such recordings/files of said professional recording to COMPOSER upon request.

If, for any reason, COMMISSIONER fails to give the premiere professional recording within the exclusivity period, COMMISSIONER forfeits the sole right to give the premiere recording and COMPOSER may choose to engage with other performers to

give the premiere recording.

The COMPOSER shall receive appropriate credit on any such electronic and physical materials pertaining to the recording. If the event of a commercial release, the terms will be determined between COMPOSER and COMMISSIONER at that time.

Any negotiations pertaining to recording or synchronization licenses that may be required for distribution in connection with radio, television, or other outlets will also be negotiated between COMPOSER and COMMISSIONER at that time.

All rights herein not granted to COMMISSIONER are reserved to the COMPOSER.

10. ASSIGNMENT

Each party agrees that it shall not assign this letter AGREEMENT or any of the rights granted in this AGREEMENT without the prior written consent of the other. This AGREEMENT shall inure to the benefit of and shall be binding on the heirs, legal representatives, successors, and assigns of each party.

11.GOVERNING LAW

This AGREEMENT shall be governed by the laws of the [INSERT GOVERNING STATE, COMMONWEATH, ETC].

12. INDEPENDENT CONTRACTOR

COMPOSER is an independent contractor in relationship with COMMISSIONER. This AGREEMENT shall not be understood as an employer/employee or principal/agent relationship, partnership, or joint venture between parties; this is not a work "for hire."

13. TAXES

Any taxes required to be withheld and/or paid under any local, state, or federal laws including but not limited to FICA and income taxes, shall be COMPOSER'S sole responsibility. COMPOSER agrees to indemnify and hold harmless COMMISSIONER with regard to the aforementioned tax obligations.

14. NONFULFILLMENT OF TERMS

If COMPOSER fails to fulfill the terms of this AGREEMENT for any cause beyond their control, including but not limited to illness or accident, family tragedy, and/or unforeseen acts of nature, their sole liability to COMMISSIONER shall be the forfeiture of any sums owed in accordance with section 3. In the event the COMMISSIONER elects to not fulfill this contract, they forfeit any payments already made as outlined in section 3. COMMISSIONER is also entitled to cancel and terminate this

AGREEMENT, or suspend the world premiere performance, in case of war, rebellion, terrorism, strike, fire, flood, or any "Act of God" or other circumstance beyond control, making the completion of this AGREEMENT impossible.

15. INDEMNIFICATION

COMPOSER does hereby indemnify and hold harmless COMMISSIONER (and its employees, agents, directors, and representatives) from any and all claims, liabilities or damages, including cost of litigation and attorney's fees, incurred by or arising from the performance of duties under this AGREEMENT, except for claims, liabilities, or damages arising from the gross negligence of COMMISSIONER and its employees, agents, directors, and representatives.

16. ARBITRATION

In the case of any controversy or claim arising out of or relating to this AGREEMENT, or breach of this AGREEMENT, a good faith negotiation shall first occur between COMPOSER AND COMMISSIONER to resolve the disagreement. If a resolution is not reached, the disagreement shall be settled by arbitration, in [INSERT GOVERNING STATE, ETC] in accordance with the rules of the American Arbitration Association. Judgment upon the award rendered by the arbitrators may be entered into any court having jurisdiction. In any such action, the prevailing party shall be entitled to recover reasonable attorney's fees. If the above provisions meet your understanding of our AGREEMENT, please sign one copy of this document and return to COMMISSIONER at the address below or via email.

17. MODIFICATIONS

Modifications or amendments to this agreement may be made. Any such modification must be in the form of a written rider to this contract, countersigned and dated by both the COMPOSER and COMMISSIONER.

AGREED AND ACCEPTED BY:

(Signature/Date)

[INSERT COMMISSIONER NAME] (COMMISSIONER)

(Signature/Date)

[INSERT SECONDARY COMMISSIONER NAME] (COMMISSIONER)

(Signature/Date)

[INSERT COMPOSER NAME] (COMPOSER)

APPENDIX G

DEGREE RECITAL PROGRAMS

| ANDREW HUTCH in DOCTORAL Thursday, Oct 8:30PM • Re | I CAROLINA usic nts IENS, saxophone RECITAL ober 1, 2020 |
|--|---|
| Dew of the Moon (2012) | Molly Joyce |
| Recession Pieces (2010) 1 2 | Mario Gaetano (b. 1955) |
| Deconstruct (2015) | Jenni Watson |
| News Flash! (2015) | Andrew Hannon |
| Indian Hedgehog (2015) | Stephen Andrew Taylor (b. 1965) |
| Random Access (2015) | John Mayrose |
| Mr. Hutchens is a student of Dr. Cliffo partial fulfillment of the requirements J in Perforr | for the Doctor of Musical Arts degree |

| TY OF HCAROLINA fusic ents | School of Musi presents | CAROLINA | |
|--|--|---------------------------------|--|
| IENS, <i>saxophone</i> RECITAL h sera, <i>piano</i> , <i>percussion</i> h 22nd, 2021 ecital Hall | in DOCTORAL RF with Claudio Olivera Daniel Myers, <i>pe</i> Monday, March 2 | DOCTORAL RECITAL | |
| Marilyn Shrude (b. 1946) | Lacrimosa (2006) | Marilyn Shrude (b. 1946) | |
| Benjamin Boone (b. 1963) | PsychoTherapy (2000/04) Anger: Anger Management Angle of Repose Attitude: Fun with Funk Action: Vandermarking | Benjamin Boone (b. 1963) | |
| Michael J. Calamas (b. 1998) | Ego Death (2021) *Denotes World Premiere | Michael J. Calamas (b. 1998) | |
| Girard Kratz (b. 1970) | Monster Studies (2012) Scavenger's Daughter The Wake of Juda's Cradle Heretic's Fork Scold's Bridle Breaking Wheel The Virgin of Nuremberg | Girard Kratz (b. 1970) | |
| ford Leaman. This recital is given ents for the Doctor of Musical Arts ne Performance. | Mr. Hutchens is a student of Dr. Clifford in partial fulfillment of the requirements degree in Saxophone I | for the Doctor of Musical Arts | |

OF CAROLINA c

NS, saxophone

percussion

ER RECITAL

ber 1, 2021 al Hall

Nathan Daughtrey

Robert Honstein

Michael Laurello

Stephen Karukas

s clarinet , piano

l Leaman. This recital is given for the Doctor of Musical Arts Performance.

| | UNIVERSITY OF | INA |
|--|---|-----------------------|
| | School of Music | |
| | presents | |
| DAI | EW HUTCHENS, saxopho and NIEL MYERS, percussion in DRAL CHAMBER RECIT | |
| | lnesday, December 1, 2021 6:00PM • Recital Hall | |
| Azul (2009/transcribed Cerulean Ice Sapphiric Fire | 2021) | Nathan Daughtrey |
| *Echolocation (2021) Call Reflect Return | | Robert Honstein |
| Unity Synonym (2020) | | Michael Laurello |
| 11 | (2021) sse Winslow, <i>bass clarinet</i> Claudio Olivera, <i>piano</i> | Stephen Karukas |
| *world premiere perform Mr. Hutchens is a stude | mance ent of Dr. Clifford Leaman. 1 | This recital is given |
| in partial fulfillment of t | the requirements for the Doc e in Saxophone Performance | ctor of Musical Arts |

| LIVERA, piano | ANDREW HUI CLAUDIO (|
|---|--|
| in AL RECITAL April 14, 2022 Recital Hall | Thursday, |
| Paul Creston (1906-1985) | Sonata, Op. 19 (1939) with vigor with tranquility with gaiety |
| Russell Whartor | Intrepid (2022) *World P |
| Baljinder Sekhon, I emiere* | At the Seams (2021) *World P |
| Michael J. Calama emiere* | agnosthesia (2022) *World P |
| Olivier Messiaen (1908-1982 Arr. Curtis Allen Ga | Vocalise-Etude (1935/2019) |
| Francis Poulenc (1899-1963 Arr. Matthew Hes | Vocalise-Etude (1927/2019) |
| Erwin Schulhoff (1894-1942 | Two Pieces (1933/2009) Valse Brillante (WV 108) |