

Exploring Dimensions in a New Work for Clarinet:
Incorporating Digital Sounds, Movement, and Video

by

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A Research Paper Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Musical Arts

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ABSTRACT

Research in fulfillment of the degree of Doctor of Musical Arts in performance has included CD recording projects, commissions of new pieces, as well as papers on existing pieces that push the performer beyond traditional playing by incorporating extended techniques, multimedia, technology, or movement. This study attempts to synthesize these ideas by commissioning a new work for clarinet and electronics that can be performed alone, combined with movement, or with an interactive video accompaniment. Primary work for this project has been the audio recording, music video, and live dance performance of the new work, entitled *Agents of Espionage*, which can be viewed at:

<http://www.youtube.com/watch?v=SAZ20kCb0Qg> or

<http://www.youtube.com/watch?v=94->

[C7wWTeKs&context=C4063fdcADvjVQa1PpcFPv1fBtuWcqgV638q_BRacH7XWR-xy1B7A=](http://www.youtube.com/watch?v=C7wWTeKs&context=C4063fdcADvjVQa1PpcFPv1fBtuWcqgV638q_BRacH7XWR-xy1B7A=).

The entirety of the project, including creating the music, video, audio recordings, and dance was completed on a limited budget of under \$500USD, using all student performers and creators.

The accompanying written document outlines the various steps for completing each portion of the project, interviews with the artists involved, including Zachary Bramble, composer; Jason Mills, videographer; and Jacquelyn Achord, choreographer; and an analysis of the music from the performer's

perspective. This paper should convey ideas about how future undertakings of this sort are possible.

This work has been greatly inspired by Martin Fröst and his collaboration with Fredrik Hogberg on the piece *The Invisible Duet*.

ACKNOWLEDGMENTS

I wish to thank the members of my committee for their time and support through my journey at ASU. A special thank you to my committee chair, Dr. Robert Spring, for his constant support and guidance. I am very grateful to Zach Bramble, Jason Mills, and Jacquelyn Achord, who have put in countless hours in the preparation of this project, and without them, this project could not have been accomplished. Finally, I wish to thank my family and friends for their endless love and support.

TABLE OF CONTENTS

CHAPTER	Page
1 INTRODUCTION.....	1
Statement of Purpose.....	1
Rationale for the Study.....	1
2 LITERATURE REVIEW.....	4
3 DOCUMENTED INTERVIEWS	8
Zach Bramble, composer	8
Jacquelyn Achord, choreographer	11
Jason Mills, videographer	13
4 METHODS AND PROCEDURES FOR RECORDING.....	17
5 NOTES AND PERFORMANCE SUGGESTIONS.....	19
BIBLIOGRAPHY	24
APPENDIX	
A ARTIST BIOS	25
B AGENTS OF ESPIONAGE SCORE	28
C IRB APPROVAL	42

CHAPTER 1

Statement of Purpose

The purpose of this project was to record and discuss a newly commissioned work for clarinet and CD. The piece, entitled *Agents of Espionage*, was written for the author and was completed in 2011. The composer, Zach Bramble accepted the commission with the understanding that the work may be performed in conjunction with other similar pieces or stand alone, and that the only requirement was that the piece be written for clarinet and CD, without any possibility of live manipulation of electronic sounds. The piece was premiered in Birmingham, Alabama, on November 8, 2011, and recorded January 24, 2012, at Tempest Recording with Robert Spring, producer, and Clarke Rigsby, recording engineer. The video recording was made using three Canon DSLR cameras – a T3i, a 7D and a 5D, using a 24mm wide angle lens, a 50mm prime lens, and numerous telephoto lenses. Videography was completed at both the Arizona State University Film Studio and in Tempe, and edited by Jason Mills using Final Cut Pro on a MacBook Pro. The video projected on-screen during live performance was produced by the author and Jason Mills, and the directors of photography were Kristine Morgan, sABIO rAMOS, and Taurean Reynolds. Choreography was designed by Jacquelyn Achord, and performed by Jacquelyn Achord, the author, Heather McCaul and Lauren Tauten

This document includes information about the work gained through interviews with the composer, videographer, and choreographer, and through the

author's personal experience with the work. For those readers interested in performing this piece, the music is available through Potenza Music; contact information can be found in Appendix A.

Rationale for the Study

Agents of Espionage was composed especially for this project. The writer hopes that this study leads to a further expansion of the clarinet repertoire, and cultivates an awareness of and interest in this particular medium. The preparatory process, the performance of the work, and the interaction with the composer produced information incorporated in this document that the writer hopes will promote this style of music and future collaboration among this type of group of artists.

Some performers are reluctant to approach new music. The writer hopes the recording and information comprising this study will create interest in and awareness of new works and convince performers of their accessibility. Though the piece is not technically easy for clarinetists, it should be playable by serious college music majors. The tonality and instrumentation of the electronic track would be categorized more in the pop/rock or film score genres, and the insertion of several words in the electronic track connects the audience to the music on both a musical and verbal level.

Delimitations

The writer does not attempt to glorify this new work. The work is to stand on its own merit. The writer does not supply an all-encompassing analysis of the work, but discusses certain aspects of the work and notes of interest to the performer. Other works are not studied in depth, but are mentioned only as references to style, genre, and when the works supply insight regarding the respective composer's writing.

CHAPTER 2

LITERATURE REVIEW

This literature review contains information about pieces from dissertations that assisted the author in designing the scope of this project. Whereas the papers reviewed in this section generally focus on single aspects of this project, the reader should find that the natural next step is to synthesize these different sections into a single unified theme.

Swing Bridge is a concert video commissioned by F. Gerard Errante and composed by Reynold Weidenaar in 1997 as a “video art music celebration of the Brooklyn Bridge.”¹ Performance of this piece requires an amplified clarinet for audio processing and a computer-processed video with digital sound, an audio mixer, video projector and screen, amplifier, and speakers. *Swing Bridge* requires either a foot-pedal controller or an assistant for the audio processing during the performance. From the outset, audiences at performances at the University of Alabama-Birmingham and Samford University enjoyed this piece and many of its components influenced the author’s guidelines to the composer of *Agents of Espionage*. First, *Agents of Espionage* needed a very simple setup. This meant being able to perform the piece either acoustically or with amplified clarinet, and with a minimum of electronics. The piece stands alone well using only speakers and a CD player, but with the addition of dancing and dancers and projections, it achieves its completed form. Performances of *Swing Bridge* can easily become

¹ Reynold Weidenaar, performance notes to *Swing Bridge* (New York: magnetic music publishing, 1997): 1.

video-centered, as the performer should not obstruct the view of the screen, and light levels in the performance hall must often be adjusted so that the video is visible, which can be too dark to see the clarinet performer. While the balance between the live performance and the recorded parts is improved in *Agents of Espionage*, this area must be continually assessed for future projects.

Jonathan David Aceto's dissertation, "A Compact Disc Recording of Selected Works for Midi Violin and Electronics," completed in December of 1998, is a thesis in two parts: a written document and a recording. Aceto supplies background on the Midi violin, biographical information on the composers of the recorded works, and extensive notes regarding the recording process. The purpose of the project was to "generate new repertoire for the instrument and to increase awareness of the instrument and the genre of interactive electronic music."² The current project is similar to Aceto's in that it was also designed to aid in the creation of new repertoire. However, it is different in that instead of changing the instrument being played from acoustic to electronic, the demand is placed on the performer to become not only a musical performer, but also an actor and a dancer.

Mindy Pyle's dissertation, "A Compact Disc Recording of Four Contemporary American Women Composers,"³ completed in 2008, is also a thesis in two parts. Pyle commissioned four new works for the purpose of

² Jonathan David Aceto, "A Compact Disc Recording of Selected Works for the Midi Violin and Electronics" (D.M.A. diss., Arizona State University, 1998).

³ Mindy Pyle, "*A compact disc recording of four contemporary works for clarinet by american women composers*". (D.M.A. diss., Arizona State University, 2008).

expanding contemporary clarinet repertoire, and includes detailed performance notes, biographies of the composers, and a compact disc recording. The current project also includes performance notes, biographies of the composers, and a compact disc recording; biographies of the choreographer and videographer, and a DVD recording.

Gary S. Dranch's dissertation, "A Performers Approach to New Demands in Selected Contemporary Clarinet Compositions,"⁴ written in 1981, notes that while the exploration of contemporary extended techniques has been treated exhaustively, the area of interdisciplinary collaborations and extra-musical demands is a topic that is virtually untouched. Fingering charts and particular performance problems have been addressed, but given technical competence with respect to his instrument on the part of the performer, little has been done to help the performer expand beyond the realm of his or her musical specialization. Dranch then covers pieces for clarinet alone, clarinet and electronic tape, and self-prepared pieces, electronic tape with some theatrical aspects, and self-prepared pieces with larger theatrical aspects. He concludes that future genres of music must include more careful collaborations between clarinetist and composer, as well as any other artist involved in the final product, i.e. sound designer, mime, etc. The current project includes these types of collaborations, while at the same time requiring many of the contemporary clarinet techniques.

⁴ Gary S. Dranch, "*A performers approach to new demands in selected contemporary clarinet compositions*". (D.M.A. diss., University of Illinois at Urbana-Champaign, 1981).

Much of the inspiration for the current project comes from the collaboration between clarinetist Martin Fröst and composer Fredrik Hogberg. The piece is performed using a CD player and stereo speakers, and the clarinetist is asked to perform several specific movements, such as pointing the bell up towards the audience or assembling and disassembling the clarinet on stage. The artists have collaborated on a video as well, though it is not available for viewing except in live performance. As of February 2012, the piece has not been recorded, and the rights to record have been reserved for Martin Fröst.

CHAPTER 3

DOCUMENTED INTERVIEWS

Zach Bramble, composer

BV: Tell me about your background in composition.

ZB: I didn't actually start composing until I was 12. My parents bought me music notation software for Christmas one year, and I haven't really done anything else my entire life, so that's kind of how I got started. I started playing the piano when I was five, and my parents put me in lessons. I kind of composed my first piece when I was five, but it was only a phrase. It was this pentatonic craziness on the black keys, and it was pretty elementary, but it was pretty good, I think, and I might write a piece of it someday. I applied to the music college two years into my acceptance at Arizona State University, got in, and it took me two tries to get into the composition department.

BV: Which direction in composition do you ultimately want to go in?

ZB: I want to be a film scorer.

BV: How has what you have/have not done influenced this piece?

ZB: I've always wanted to do something that was electronic, but didn't really have an opportunity to compose a piece. And I didn't really have experience in electronic music, so that was my motivation for doing the piece.

BV: How did you go about creating this piece?

ZB: It took me four months to figure out what I was going to do, because I had never really written out a graphic score, or anything like that, and I ultimately

decided I was going to take a safer route. I would try to notate the piece, which worked out in my favor, I think. I created the electronic track using Digital Performer and Absynth. I put together a bunch of sounds that I created, and if they work together I kept them, if they didn't, I threw them out. I had two different orchestras that were really two different groups of eight tracks and they took turns playing the different sounds. At the very end, they came together, and this was the electronic track. I also came up with the graphic score as an outline, and I followed it pretty closely. Form in music is extremely important. I actually used to be opposed to form, at least when I was new to composition. I didn't think it lent anything to music, and that it restricted you, but in actuality, I think it gives you a starting point. You automatically have an idea of how your piece will sound or feel. Form gives an architectural grounding to the composition.

BV: What were the particular challenges for writing this piece?

ZB: Everything was challenging when writing this piece! I'm still worried about its reception. Coming up with the idea of the form, and putting it together was the hardest part. The electronic sounds were a lot different sounding when I put them into the electronic processor than what I had intended them to be. So I sometimes had to work backward with the electronic sounds, because when I added the note values to them, they sounded different than I was expecting. I created them on a sustained sound, so I could hear what was going on, but when I made them shorter, it sometimes worked out in my favor to hear all the different sounds. Putting them all together was also very difficult.

BV: Is there any element of the piece you consider very individual to you?

ZB: I want to say all of it. The clarinet part alone, I feel is very unique to me. I favor the clarinet part over the electronic part a little bit more, because I feel like it represents me as a composer. When I was younger I had a difficult time writing flashy pieces with a lot of notes, and I feel like I have conquered that fear.

BV: What is the meaning of the title?

ZB: Originally, the piece was going to be called “Evolution,” because it was supposed to be a piece that evolved, which I still think it does to an extent. At least within each section. My idea was that the piece would start small, almost from nothing, and grow into something big. But I had this little 16th note idea, like something you might hear in a spy movie. And I was like, “oh my God, I can’t let this go. “And it spurred the entire idea of the piece. So I threw out everything I had already done, and started fresh in order to create the piece off of this one little idea. I thought it sounded like spies, so the title serves the piece well.

BV: Would you write for this medium again?

ZB: Absolutely! Even though it was a lot of work, it was a lot of fun.

Jacquelyn Achord, choreographer

BV: Tell me about your background in dance.

JA: I've been dancing for the past 17 years, including ballet, jazz, and tap, some modern/contemporary, clogging, musical theatre, and hip-hop.

BV: Which direction do you want to move in professionally?

JA: I'd like to pursue a career in Musical Theatre while choreographing productions.

BV: How has what you've done previously influenced your work on this piece?

JA: Dance works that I have done previously which influenced this piece is my entire history of dance. Each piece teaches you a lesson or evokes a specific feeling while you dance. Each piece builds on top of another and influences the pieces that will come after.

BV: How did you go about creating the choreography for this piece?

JA: I began the choreographing process by listening and analyzing the music. Then I looked into the emotions of the music and the story it was telling. Through the music and unraveling of the story I began to put the movements that matched the music. Once all the elements were in sync I refined and clarified each movement. That way the dance would be true to the music.

BV: What were the particular challenges for this project?

JA: Particular challenges that I have faced with this piece is working with multiple elements. I wanted to tie in the visual and audio elements together while staying true to the music.

BV: Is there any element you consider very individual to you?

JA: One element that is very individual to my choreography is the quality of the movements. I like to have a constant tension between slow and fast. These qualities keep dancers on their toes and keep the audience guessing what movement will be coming next.

BV: Would you participate in a project like this in the future?

JA: I truly enjoyed working on this project. I most enjoyed creating something new and original that no one else has done. Watching the work unfold and form into what I imagined was more than I could have hoped for. I would be very excited to work on a project like this again.

Jason Mills, videographer

BV: Tell me about your background in film

JM: I started when I was 16, I got my first job at AMC movie theaters. I worked for the theater for five or six years because I really enjoyed going to see movies. I could've had better paying jobs, but the perk of watching free movies and being in that atmosphere really took off for me. After a couple of years working there, I started working in the projection booth, splicing and editing reels, and putting together the films and commercials. That was my first taste of what it would be like to be a real film editor, if you will. It really took off after that when I took my first film class at Glendale Community College. It was just an intro to film class to satisfy requirements, but I enjoyed it so much that I went out and bought screenplay books, and ironically, I bought the books that were required at the ASU [Arizona State University] screenplay class. So I was a couple of years ahead of the program when I joined it. So I started writing my first screenplay at 18 or 19, I just didn't realize that there was a venue or outlet for it. I thought you just had to start by writing a screenplay on your own and continue on your own from that point, until I realized that ASU has its own class. The program offered all the requirements I really wanted to do, so, if you want to say, I quit my day job to start up at school and pursue a passion in my life.

BV: Which direction in film do you ultimately want to go in?

JM: Professionally, I would do anything to be a part of the film set or process.

Ultimately, my favorite part is conceptualizing whatever the film will be, whether

it's a music video, or a story, whatever it is, I like conceptualizing. I really like to see the finished product. I like to get my hands on as much stuff as I can do, and for my own projects, I'll spend all night working on a costume, or it doesn't matter what I'm doing, I just like to be part of the process. And if I can do that every day, making money and being on set, I'll enjoy it.

BV: How has what you have/have not done influenced this piece?

JM: Previously, I've done several music video contests for rock band and to direct a Foo Fighters music video. Not to say that this is a music video, but it's a video influenced by music, and a lot of times edited by music. That is always a big addition to a music video that you do, you know, downbeats, upbeat, whatever other kind of beats, and I think that has really helped me to organize this. I took a music video class maybe two years ago now, and we learned to listen to the music over and over and over again, and that really helped me because I listened to *Agents of Espionage* probably 100 times, and every time I listen to it, I would visually see this in the music, and after listening to it a couple more times I came up with a couple of concepts, and it's evolved from there to be what it is.

BV: How did you go about creating this piece?

JM: I downloaded the piece and put it on my iPod, and since I work as a courier, I'm in the car all day long. I just put it on repeat, and listen to the piece over and over again. I drive to Tucson, which is a two-hour drive and I would listen to the piece the entire way down and back. That really helps to solidify the music in your head, and helps to visualize the piece.

BV: What were the particular challenges for writing this piece?

JM: I would say there are a combination of things that are unique to what I am used to. Communicating via emails and phone calls rather than the personal interaction that I am used to was different. But that was great, because it's something that is guaranteed going to happen in a professional atmosphere. Communicating over Skype, or even having no personal interaction with the person you are making a video for. So to set things up over email and phone calls was something that I had never faced, but I think it worked out really well. Getting enough help and support from friends and classmates was a challenge. I particularly preferred to have classmates help as opposed to just friends, because they understand the language a little more, and are able to put their perspective and opinions into things. Filmmaking is not just a single person, that's for sure. And though there's a thin line between butting heads and collaboratively working things out, I think sharing ideas and trying out things is very healthy. Especially for a project like this, where we did have enough time to try things out and to experiment and try to get the best result possible.

BV: Is there any element of the piece you consider very individual to you?

JM: I think the minimalist aspect of it is part of what I like. Now, that is something that is used widely, and maybe something that I take from. But in today's day and age, there isn't that much originality; so much of what you see in the film medium is something you've already seen before. But what I tried to put in there was very minimalist, just a light on what we want you to see, and

everything else pitch black. Video and cinematography is all about directing the audience's gaze, and so by putting one light above each instrument, I have basically told you what you were going to watch, and when we walk in and out of the light, that's where the audience focuses, so that approach is something that I really enjoy and was trying to get across.

BV: Would you write for this medium again?

JM: Absolutely! At this stage, I get my hands on everything I can do. I've seen so many directors doing what they love and enjoy, and turning of great products, and this is what I love and enjoy. It would matter if I was going to be the director for the *Dark Knight IV*, I would still always come back to projects like this, just a friend or family member asking to do a video.

CHAPTER 4

METHODS AND PROCEDURES

The audio recording was done at Tempest Recording in Tempe, Arizona, and recording engineer Clarke Rigsby, the recording engineer, used a Coles 4038 Ribbon microphone through Grace pre-amps into Pro-Tools X, mixed through a Trident Console with a Bricasti M7 Reverb unit. No editing or “takes” were used; rather, portions of the clarinet track were “punched in” while the electronic track was being played. The two tracks were then mixed together to balance the loudness of the electronic sounds with the recorded clarinet.

For the video recording with Jason Mills, a 24mm wide angle lens, a prime 50mm lens, and numerous telephoto lenses were used on three Canon DSLR cameras: a T3i, a 7D and a 5D. Editing was completed on a MacBook Pro using Final Cut Pro. Special effects, mainly the creation of the holograms of the instruments, were completed in post-production also using Final Cut Pro. Recording was completed in the Arizona State University black box studio and the local Tempe area. These locations were chosen because they were completely dark, and every detail from the choice of lamp material, its direction, and intensity could be carefully controlled. Used in conjunction with carefully chosen camera settings, the audience only sees what the videographer intends.

Part of the goal of this project was to make sure that it was relevant and related to popular culture, especially the video itself, in order to be accessible to that younger audience. Therefore, a great deal of flexibility has been incorporated

into the various elements of the piece, and no written choreography is provided.

Future performers are encouraged to continually find new ways to make this piece relevant to their audiences in the live performance.

CHAPTER 5

NOTES AND PERFORMANCE SUGGESTIONS

Agents of Espionage is in binary form, and within the first A section, the beginning through letter D or measure 221, there are three sections that constitute a miniature aba form. The tempo at the opening is quite fast, and the performer may not be able to perform the required articulations if s/he is unable to double-tongue. There are also several extended, soft passages of flutter tonguing. Measure thirty-five takes the clarinetist up to a B-flat⁶ in a rapid passage of sixteenth-notes. While the standard fingering works well, an alternate, fingering suggested by the author uses the second and third fingers of the left hand alone (without the thumb or register key). Later in the piece, the performer must play a C⁷, but this note has become the top of the standard range of the instrument, and is regularly played by performers today. The opening A section appears tricky with its continuous strings of sixteenth-notes and numerous accidentals, but actually lies well on the clarinet, and though playable without the ability to circular breathe, it is made easier if the performer does circular breathe. The final a section at measure 212 is the most technically challenging section of the opening of the piece, including a tempo modulation. Although the 3:2 relationship is easy to comprehend, it is often difficult to achieve when the electronic track makes this change with no *rubato* whatsoever. The opening of the B section, letter D or measure 221, may again be unplayable if double-tonguing is not an option, as the sixteenth-note sextuplets are quite fast. The ending of the piece, from measure

291 to the end, is not particularly challenging, but the numerous repetitions make demands in terms of both stamina and continued accuracy.

The author indicates the performance should be free in terms of the artistic liberties taken with both the dynamics and in the style of the piece. For instance, the instruction of “jazzy” should extend to both the rhythmical and stylistic nature of that particular section of the piece. The same applies to dynamics. In fact, these may need to be adjusted for each performance, depending on the electronic equipment used. While it is not essential, performers and audiences may find it more appealing if the clarinet is slightly amplified to blend the electronic track with the live clarinet. Overall, this piece has proven accessible not only for the performer but also traditional concert audiences in performances to date.

However, this project deals with incorporating multimedia, and this is not effectively achieved until the piece has been memorized. This can be a rather arduous task in both the B (beginning at letter D or measure 221) and b (beginning at letter B or measure sixty-five) sections. These places are the easier (and therefore less practiced sections of the piece), the patterns are continuously variable, and the first b section lacks a continuous rhythmic activity in the electronic track, making the accurate counting of rests a more difficult task than if a rhythmic feature was happening in the background.

Adding the dance element to this piece both magnified and simplified this process, as each musical gesture took on a new physical gesture. Depending on the dance requirements placed on the clarinetist while performing, some of the

playing can become much more challenging while dancing. However, this can make the counting of rests more manageable, as the need to coordinate movements during performance will take on a greater significance than in a concert performance, where one is simply waiting for the rest to conclude before resuming performance. Before this project, the author had a background in moving and playing only through marching band, which generally includes starting and stopping on the beats. Contemporary dance does not start and stop only on the beat. In fact, the choreographer found the rhythm of a half-note followed by two eighth-notes and a quarter-rest to be the most singular element of the piece. This pattern reappears continually, and can be modified, such as a dotted-quarter followed by an eighth and a half-note. These are certainly not the previously mentioned marching band rhythms and make for a more demanding performance. The task of learning the steps alone and then re-learning how to perform the clarinet part while doing the dancing took many hours, though future collaborations of this type could be simplified, if necessary.

The video work was prepared over a two-week period – first, planning the efforts, then actually shooting the video, and finally editing. Most filming occurred at the Arizona State University Film Studio, where the environment, including the use of various filming techniques, ladders, tripods, and lighting, could be carefully controlled. Three cameras were used, set at the same settings but with different lenses, to catch the same actions from different perspectives all

in one take. Some close-up shots were completed later in order to polish the final edited product, again with the same settings, resulting in a seamless final product.

Clarinetists looking to tackle this type of project should not be deterred from their efforts due to the scope, time, or costs associated with a project of this type. Whereas videos of this nature might have been prohibitively costly to produce in the past, only to appear amateurish in the final product, today's technology allows for a professional finished product at a reasonable cost. In fact, a generic Apple computer, iPhone, or iPad, with Garageband, iMovie, and iDVD, could accomplish every aspect of this work. This project could have been completed in a longer period of time using only one camera, costing in the neighborhood of \$800USD, but three cameras were used primarily to catch the same action from different angles simultaneously, in the absence of professional actors. The software for editing was \$300USD; however, many college campuses have equipment available for student use, and/or people interested in making films. It is just a matter of connecting projects and artists. With proper organization and planning, a simple video could be filmed and edited with special effects in under a week.

While the first concert performance of this piece received polite and positive feedback, the premiere of the full work at the University of Alabama-Birmingham Clarinet Day in March of 2012 created an interesting phenomenon that has continued in subsequent performances. Many audiences have been vocal with snickers and sounds of suspense when the clarinet is stolen in the video, and

many of the performances have resulted in spontaneous recording by members of the audience who take out their cell phones and begin capturing their own video! Artists involved in this project have interpreted these actions as compliments.

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- Website for Martin Fröst:
<http://www.martinfrost.se/>
- Website for Fredrik Hogberg:
http://www.courthousemusic.com/Courthouse_Music/Start.html

APPENDIX A

ARTIST BIOS

These biographies are given to contextualize this project, and the reader should discern that while the final product is polished and professional, those involved in assembling it were all students at the time. Hopefully, this serves as an inspiration for future collaborations of this type.

COMPOSER: ZACHARY BRAMBLE

Zachary James Bramble is an American composer and pianist. Bramble began playing the piano at the age of five, and he started arranging music shortly after starting formal piano lessons at the age of six. A recent graduate of Arizona State University, Herberger Institute for Design and the Arts – School of Music, Bramble graduated with Honors from Barrett, The Honors College, with a Bachelor of Music-Composition and Theory (Composition) in May 2011. While at ASU, he studied music composition under the direction of Roshanne Etezady, Jody Rockmaker, Rodney Rogers, and Glenn Hackbarth. Having relocated to Los Angeles, he is currently working with the University of Central Florida on student animation projects and with Chapman University film students on small shorts. Bramble has one published work through Potenza Music entitled *Agents of Espionage*. Bramble was among the Top 10 Semi-Finalists in the 2010 Folgers Coffee Company Jingle Contest in piano and vocals: pop style for TV/Media category. He is a member of American Society of Composers, Authors, and Publishers (ASCAP). For more listening and a larger list of works visit:

sites.google.com/site/brambleworks/

CHOREOGRAPHER: JACQUELYN ACHORD

Jacquelyn Achord has been dancing since the age of two, and has been choreographing since 2006. She has a background in ballet, jazz, tap,

modern/contemporary, lyrical, clogging, musical theatre, hip-hop, swing, Latin, and the fundamentals of ballroom. Achord is currently pursuing the Bachelor of Fine Arts in Musical Theatre with a minor in Dance from Samford University in Birmingham, Alabama, and is expecting to graduate in May 2014. Concurrently, she is working on a master's degree in Dance Education from Dance Master of America, completing the Teacher's Training Program in Buffalo, New York.

VIDEOGRAPHER: JASON MILLS

Jason Mills is an undergraduate student in the Film and Media Production Program at Arizona State University where he is making the dream of being a filmmaker into a reality. Mills has written, directed, and edited over fifteen short films, music videos, and class projects. His commercial for First Delivery Service can be seen on the home page of their website, <http://www.firstdeliveryservice.com/>. Mills expects to graduate in December 2012.

APPENDIX B

AGENTS OF ESPIONAGE SCORE

Agents of Espionage

Zachary J. Bramble

$\text{♩} = 142$

Mysteriously

Clarinet in B \flat

Audio Track

Cl.

Tr.

7

Cl.

Tr.

10

Cl.

Tr.

13

Cl.

Tr.

15

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Cl. *f* *pp* *sf* *pp* *sf* *pp* *sf* *pp* *sf*

Tr. 19

Cl. *f* *pp* *cresc.*

Tr. 23

Cl.

Tr. 27 *g^{vb}* *g^{vb}*

Cl. *ff*

Tr. 30

Cl. *fff*

Tr. 33

Cl. *mf* *pp* *mp*

Tr.

36

Cl.

Tr.

41

Cl. *mp* *mp* *f*

Tr.

44

Cl. *pp* *ff*

Tr.

48

Cl.

Tr.

53

Cl. B

63

67

Cl. *p*

75

79

Cl. *p*

81

85

Cl. *p* Bend

88

92

Cl. *p* *pp*

96

100

Cl. Tr.
 101

Cl. Tr.
 104

Cl. Tr.
 107 *mp*

Cl. Tr.
 110 *ppp*

Cl. Tr.
 116 *pp* *pp* *pp* *8vb*

Cl. *pp* *pp* *pp*

Tr. 123 (8vb) 8vb

Cl. *pp* *pp dim. poco a poco*

Tr. 129 (8vb)

Cl. *pppp*

Tr. 132

Jazzy

Cl. *p* *mf* *f*

Tr. 139

Cl. *f*

Tr. 147

Cl. *mf*

Tr.

154

Cl. *mf*

Tr.

162

8vb-----

Cl. *p*

Tr.

172

C

Cl. *pp* *sf* *pp* *sf*

Tr.

178

Cl. *pp* *sf* *pp* *sf* *pp* *ff*

Tr.

182

* Fingered glissando to F sharp, then bend pitch from F sharp grace note to C.

Cl. *pp*

Tr.

187

Cl.

Tr.

195

8vb-----

2

Cl.

Tr.

202

8vb-----

Cl.

Tr.

210

8vb-----

pp *mf* *pp* *mf*

Cl.

Tr.

214

pp *mf* *pp* *mf* *pp* *mf*

Cl. *pp* mf *pp* mf *pp* mf

Tr.

217

Cl. *pp* *ff*

Tr.

220

D ♩ = 95

Cl.

Tr.

222

Cl.

Tr.

224

Cl. *subito p*

Tr.

226

N.B.

Jazzy

Cl. *ff*

Tr.

229

Cl.

Tr.

233

Cl.

Tr.

239

Cl.

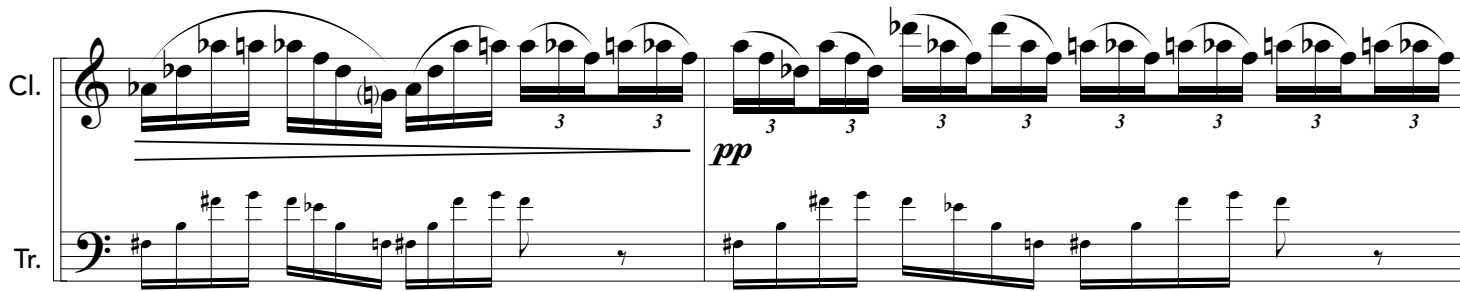
Tr.

245

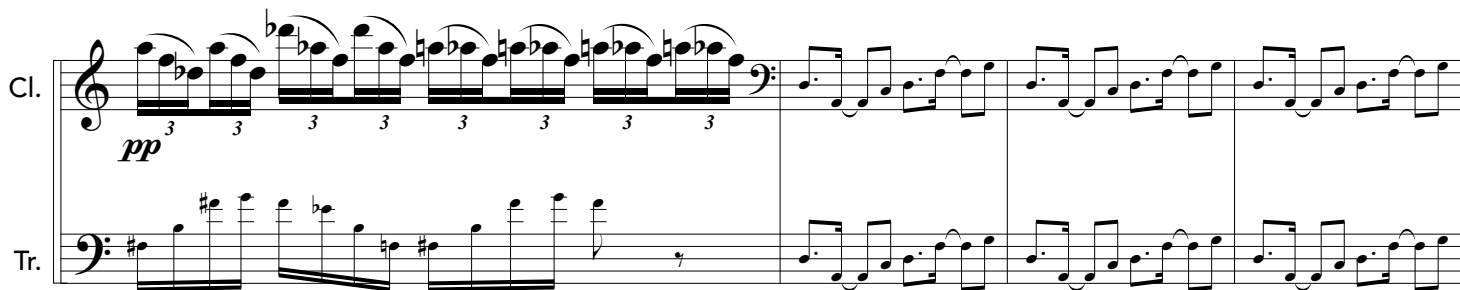
Cl. *pp* *sf* *pp* *sf* *f*

Tr.

250

Cl. 

254

Cl. 

256

Cl. 

260

Cl. 

265

Cl. 

270

Cl. *f*

Tr.

277

Cl. *f*

Tr.

282

Cl.

Tr.

286

f

Cl. *pp*

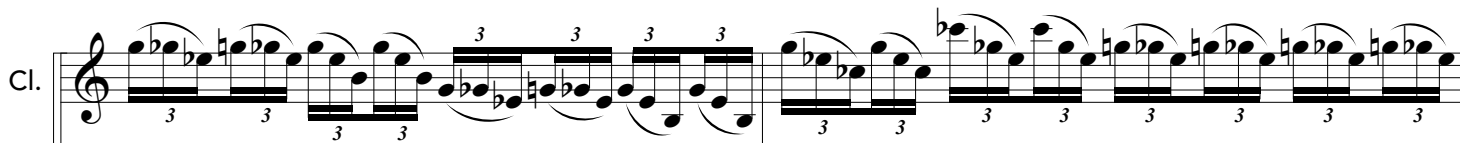
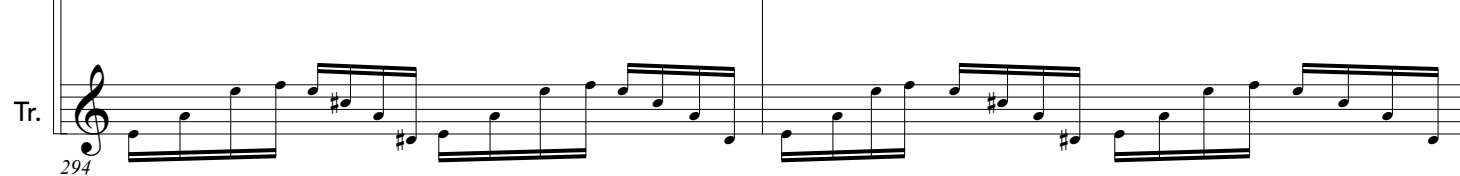
Tr.


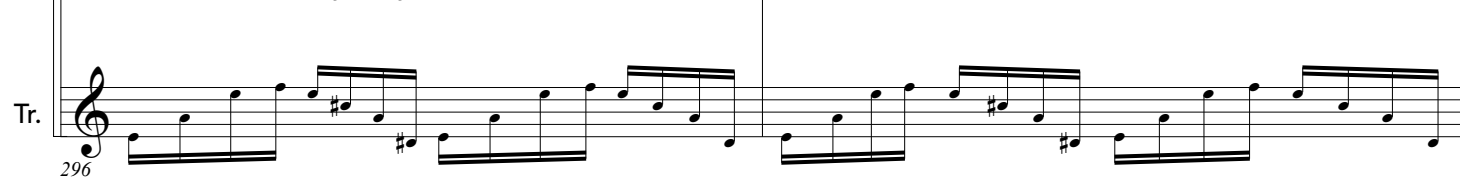
290

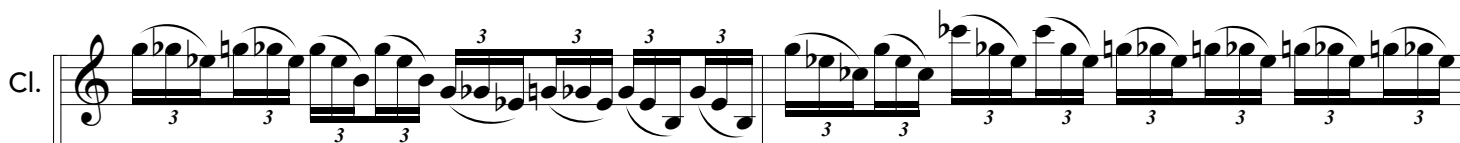

Cl. *dim. poco a poco*

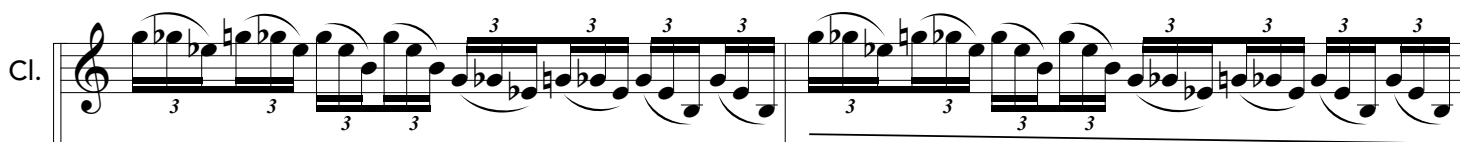
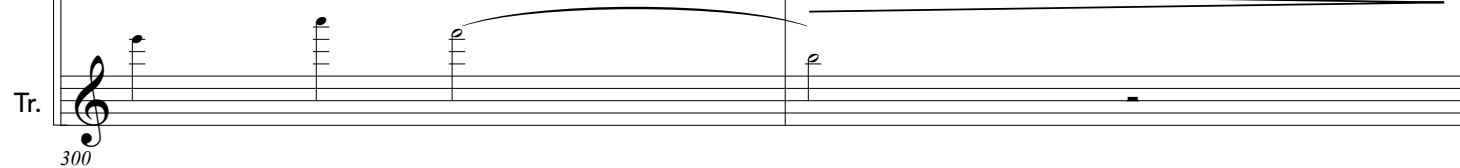
Tr.

292

Cl. 
Tr. 
294

Cl. 
Tr. 
296

Cl. 
Tr. 
298


Cl. 
Tr. 
300

Cl. 
Tr. 
302

19

APPENDIX C
IRB APPROVAL

To: Joshua Gardner
MUSIC BUIL

From: Mark Roosa, Chair 
Soc Beh IRB

Date: 03/26/2012

Committee Action: Exemption Granted

IRB Action Date: 03/26/2012

IRB Protocol #: 1203007605

Study Title: Exploring Dimension in New York for Clarinet

The above-referenced protocol is considered exempt after review by the Institutional Review Board pursuant to Federal regulations, 45 CFR Part 46.101(b)(2) .

This part of the federal regulations requires that the information be recorded by investigators in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects. It is necessary that the information obtained not be such that if disclosed outside the research, it could reasonably place the subjects at risk of criminal or civil liability, or be damaging to the subjects' financial standing, employability, or reputation.

You should retain a copy of this letter for your records.