The tuba and tape: An exploration of repertoire for solo tuba and fixed electronic media

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THE TUBA AND TAPE:
AN EXPLORATION OF REPERTOIRE FOR SOLO TUBA AND FIXED ELECTRONIC MEDIA

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I. Purpose/Abstract

This project is a combination of my senior recital performance with the Honors Thesis project to present a recital of music that explores the genre of Solo Tuba and Fixed Electronic Media. Fixed Electronic Media is a form of accompaniment that is electronically created before the performance and played back through a data storage format, such as CD, DAT, or digital audio file; use of this is a comparatively narrow and new field that is one of the leading edges in compositions for the tuba. The main goal of this performance has been to provide the audience with a sampling of five pieces that each display different aspects and time periods of this genre. It is aimed to be both informative and for entertainment purposes, allowing the general public to experience a snapshot of a genre they might never experience. To accomplish this end, I have created a source review of as many pieces in the genre that I could locate, commenting on style, practical performance details, and where to find each work. Afterwords, I have detailed the process behind preparing for the recital and the reasonings behind the works that I chose to present. By doing this, others who are interested in exploring the field of tuba and electronic music will have a good starting point for their project.

II. Source Review

This field is much more narrow in content than other genres in solo repertoire. Because of this, compounded by how new it is, there are far fewer works to research. In addition to their limited number, many are hard to locate, with one or no existing professional recordings to use as reference. The Guide to the Tuba Repertoire: The New Tuba Source Book is the most well recognized source for published music and has served as a springboard for locating many of the existing works published as of 2006. Chapter six offers a detailed list of the works for solo tuba and electronics by composer, indicating defining details such as range, difficulty, publisher, and
other information if available.\(^1\) From that collection, I have gone through and selected the works which fit the criteria of solo tuba with a fixed electronic accompaniment that I could find in publication and with recordings. I deliberately chose works that require only the soloist, meaning that works requiring multiple performers or additional accompaniments are excluded. Additionally, I will only be examining the work if it is specifically for fixed media; therefore, anything requiring live adjustments to the playback, including effects pedals, changing playback speed, or looping software will not fall within this project. Even with a source as well researched as *The Guide to the Tuba Repertoire*, there are still pieces identified with only minimal information, such as just the composer and title. Consequently, I could not find more information about some of the pieces other than that they exist or existed at one time. Apart from the *Guide*, there are few other comprehensive sources for this form. Craig Potter’s doctoral dissertation was the next best available source, which examines in greater detail several landmark pieces in the genre, with accompanying recordings.\(^2\) In the following, I will list all of the works for the genre that I have found in alphabetical order by composer, noting professional recordings and whether there are other papers written discussing the work. Additionally, I will discuss various specific aspects of the piece, such as performance considerations, style, historical importance, and other noteworthy concepts. Many are included in *The Tuba Source Book*, though not all. By no means is this list comprehensive, but it will serve as the foundation for the rest of the thesis project.

- Ayers, Jesse. *The Dancing King.*

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This work is cited by Potter for its excellence in the genre and is characterized by its intense, driving rhythms. Challenges in its performance can stem both from the tessitura of the piece and the complex metrical structure of the piece. The composer created recording of Tony Zilincik offers a good starting place when studying the aspects of style and drive required to perform this piece properly.\(^3\)

- **Bathory-Kitsz, Dennis. *Llama Butter.*

  This piece sets itself apart as unique in the genre, calling not only for tuba and tape, but also for a set stage with props and dancers. Bathory-Kitsz gives stage directions for how to set up lights, scenery, and the dancers properly in the performance notes of the work. Other aspects recommended for proper performance by the composer include a painted, non-reflective tuba with fluorescent black lights lining the tubing. The piece itself is quite long and requires extensive use of multi-phonics and other extended techniques.\(^4\) Truly unique, the full vision is only really understandable by viewing the movie of the performance from the composer’s website.

- **Beck, Jeremy. *HoUsE miX.*

  This work is especially notable due to its ties to the University of Northern Iowa, as it was commissioned by Dr. Jeffrey Funderburk, the current head of the UNI School of Music. The composer describes that the piece embraces the electronic nature of the

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genre, drawing inspiration from 90s “techno dance music.” Funderburk’s recording of the work follows a recurring trend that is common throughout this genre: the commissioner or dedicee is the one who recorded the professional premiere of the work. These are the most important points of reference, as they are closest to what the composer intended.5

- Biggs, John. *Invention for Tuba and Tape.*

Lesser known, the *Tuba Source Book* describes *Invention* as a good piece for an introduction into the field of tuba and electronic music. The recording backtrack is all created from sounds within the piano.6 I have yet to find a recording of this work.

- Corwell, Neal.
  - *New England Reveries.*

One of the most prolific composers for the genre, Corwell has at least eight pieces that fit the qualifications for the project; I will focus on *New England Reveries*, which is perhaps one of the most unique and noteworthy of his works. This work is meant, according to the composer, to depict the varied landscapes and natural features of New England. Compared to some of the others in the collection, this work is accessible and yet still beautiful.7 When researching this work, I found

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the recording to be very helpful when conceptualizing the vision of the piece and the textures the composer requires.

- **Improvisations on a Bach Sarabande**

  Though not as well known as some of Corwell’s other works, this piece stands apart from others due to the interesting origins of the melodic material, as well as that of the accompanying figures. The melody is all derived from one of J. S. Bach’s cello suites. The accompaniment is all derived from sounds that Corwell created utilizing his euphonium, using both traditional and extended techniques. Because the accompaniment is all created with the composer’s instrument, in performance it is in a way like playing a duet with the composer.\(^8\)

- **Davis, D Edward. *Let There Be Funk.***

  Edward’s work is quite popular among many different tubists; the piece fuses the styles of popular genres such as R&B, jazz, and funk with electronic fixed media. Often popular with audiences as well, the piece explores these styles through widely contrasting sections. These contrasts, along with articulation clarity in the low register, are what make the piece most difficult. Listening to the Dr. David McLemore recording as a guide for shifting these styles will help to solidify the piece as a whole.\(^9\)

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• Escobar, Aylton. *Poetica IV.*

This is another lesser known work; the only information on the piece is found in the *Tuba Source Book.* It describes the piece as rewarding to play, though difficult. The fixed media backing tape is prepared by the performer ahead of time by creating a multi-track composite of the performer playing each accompanying part. I have yet to find a recording of the work.¹⁰

• Gomez, Alicia. *Shaman Returns.*

Another interesting work that brings two disparate styles together, *Shaman Returns* combines aspects of funk with Native American and Aboriginal styles. Perhaps most striking to the performer is that it requires playing the didgeridoo for part of the work. George Palton, who writes of Gomez’s works, while not speaking specifically of this work, offers insight into performances of her solo works. He describes that it is common for her to seek out influences of other cultures, which often leads to interesting rhythmic motifs. Often the rhythm and syncopation are the most important stylistic consideration. Palton also mentions that the tonal structure of Gomez’s writing often stems from the style of the piece, incorporating real sequences as opposed to tonal. *Shaman Returns* demonstrates these tropes of her writing well, as Dr. Swoboda demonstrates in the recording. Especially important to understanding the work is to listen to the didgeridoo section, as most tubists are unfamiliar with the instrument.¹¹


• Hamlin, Peter. *Clones.*

This piece is another work commissioned by Jeffrey Funderburk. More difficult than *HoUsE miX,* this piece, as described in *The Tuba Source Book,* attempts to “clone” the tuba’s sound through both the electronics and the writing. It is also described as quite difficult, which is exemplified by the Funderburk recording. When one prepares this piece for performance, as in the case of other works mentioned, listening to the recording is critical to developing timing and stylistic interpretation.\(^\text{12}\)

• Hiller, Lejaren. *Malta.*

The *Tuba Source Book* denotes this solo as very difficult, which means to a non professional player, it will be almost unperformable. The book describes the challenges lying in difficult leaps and extreme tessitura, even more so than in the Raum work discussed later. The recording made by Cummings provides a good source to hear what the pieces sounds like once the technical difficulties are overcome.\(^\text{13}\)

• Lazarof, Henri. *Cadence VI.*

As Potter discusses in his dissertation, this is likely one of the best known works for tuba and tape, because of its association with Roger Bobo and the album *Botuba.* Different from some of the synthesized back tracks for the time period, this piece’s accompaniment

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\(^{12}\) Morris and Perantoni, *Guide to the Tuba Repertoire,* 252; and *Journeys,* Jeff Funderburk, Mark Records 3176-MCD, CD.

is pre-recorded by the performer, and functions similarly to a duet. In listening to the original recording by Bobo, the learning artist has many good aspects to model, as Bobo is one of the most known and highly regarded tubists of his time.\textsuperscript{14} Regardless of the work in the genre, this piece is a good one to listen to as a model for overarching stylistic considerations and technique.

- McLean, Pricilla. \textit{Beneath the Horizons III}.

A very unique work, especially for its age, this piece utilizes recorded whale sounds and a wide variety of extended techniques to create a seascape of sounds. It is quite a refreshing work and a great example of the variety that can be achieved in this genre. While reading descriptions and the printed notation can be quite abstract, the recordings available help the performer to audiate and prepare the work.\textsuperscript{15}

- McMillian, Benjamin. \textit{Tomes}.

A set of three different works, all in the same vein, these pieces are for tuba and a recorded orchestral accompaniment. The pieces are largely fantasy inspired and very programmatic in nature. The sounds are bold and fit the style of a grand movie soundtrack. Because they are so recently composed, they are on the leading edge of the field, as the third in the set has not yet been published.\textsuperscript{16}

• Meechan, Peter. *Floating Dreams.*

Very different from many of the compositions in this list, *Floating Dreams* is much more subdued and lyrical than most every other work in the genre. It is a great contrasting piece from the other works and represents a modern contrast to works such as McMillian’s *Tomes.* As it is so new, there are not many recordings as of yet, though those such as the Renshaw one cited are good to help get the style and tone in the ear of the performer. Especially since this piece is so different from the rest of the genre, style guides from recordings are crucial.17

• Olson, Curtis. *Incurzion for Tuba and Synthesizer.*

A more well known work in the genre, this piece attempts to evoke the energy of a military incursion. Consequently, there are a fair amount of rapid, aggressive sections. The recording of this work is well prepared and should serve as a standard for clarity in articulation. Tuba players often have difficulty in achieving clarity of articulation in rapid passages, so this piece would be excellent for developing the technique.18

• Ott, Joseph

  ○ *Music for Tuba and Two Channel Tape*

Potter notes in the introduction to his dissertation the importance of Ott’s *Music for Tuba and Two Channel Tape* as being one of the first written in which the performer essentially creates a tuba ensemble of themselves by multitracking an accompaniment beforehand. I have not found a recording of this piece.19

**Bart’s Piece**

This work is not written to metrically align with the recording; instead, it utilizes this writing to allow space for the performer to improvise. Because of this, the recording is an excellent source for ideas of improvisation within the style and context of the work. It is important, though, for the musician to explore beyond just what is on the recording.20

- **Ostrander, Linda.** *Time Out for Tuba and Tape.*

  This is another work recorded by Cummings; it is similar in difficulty to some of the others, such as *Malta*. Again, this piece requires multi-tracking a performance accompaniment beforehand. Oddly enough, I have not found a place from which to loan or purchase this score, though I have located an excellent reference recording.21

- **Raum, Elizabeth.** *Nation and Secret.*

  Raum is a composer who is well regarded in the field for writing artistically worthwhile pieces for the instrument. Williams examines in detail some of the works Raum has

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21 Morris and Perantoni, *Guide to the Tuba Repertoire*, 253; and *Barton Cummings…*, Barton Cummings, Con Brio 5637217581, 2007, CD.
composed for tuba, with generally favorable comments. This is a work that combines two separate pieces in one publication. The first half, Nation, is a Theme and Variation, based on scenes and locations in Canada. It is quite difficult, sitting in the extreme upper register for most of the piece—which Williams points out as a common theme in her writing. Despite these difficulties, it is quite beautiful and full of different contrasting sections, from the city to the mountains and all in between. The Secret piece in the second half is quite unique as it is a monologue with tape and tuba. Because the story was written with the dedicee in mind, retelling personal anecdotes and jokes, it is hard to perform seriously in a recital situation. The publicized sheet music comes with the only recording of a performance of the piece. This recording is especially important to study, as it has several spots where the performer departs from the score to give themselves a break from the high range playing. Exploring these choices, as well as making potentially more choices in range adjustment will be crucial for the successful performance of this piece.\(^2\)


As mentioned by Potter in his dissertation, the first two compositions for tuba and electronics were Ross’s *Piltdown Fragments* and *Midnight Variations*, both of which were composed for Cummings. Though different, the two works share many similar characteristics including the use of extended techniques. Both are recorded, and because of the notation in the score, the recordings are beneficial for understanding the ink on the

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page. These are worth study both for their historical significance plus their compositional merit.\(^\text{23}\)

- **Scott, Andy. *My Mountain Top.*

Originally written for saxophone quartet, the composer has since gone through and reworked the piece for many different instrumentations, including solo tuba and CD. The piece is interesting in that it has a voice recite the poem by the same name, written by Lemn Sissay. The poem is presented concurrent with the accompanying music and solo tuba, thus telling a story by combining the three aspects.\(^\text{24}\)

- **Witkin, Beatrice. *Breath and Sounds.*

This is one of the earliest pieces of its kind listed in the *Tuba Source Book.* In listening to the recording, it involves many extended techniques, especially vocalizations through the instrument. To my ear, it is characteristic of the genre at the time it was written in 1975 and offers a good point of contrast from the modern works. Interestingly enough, there is the original score and tape held in the archives of the Wesleyan University in Middletown.\(^\text{25}\)


Wyatt, Scott. *Three for One.*

The *Tuba Source Book* speaks very highly of this work for both its compositional merit and its overall affect. Though difficult, it is one of the standards of the genre, as witnessed by its Perantoni recording. Similar to some of the others of extreme difficulty, it merits awareness for stylistic interpretation and for tonal references as to what a tuba should sound like in these extreme circumstances.  

III. Reflection

The senior recital is one of the biggest landmarks in the process of earning a bachelor’s degree in music. It signifies a summation of years of practicing and work, as well as a demonstration of one’s capabilities in rounded musicianship and musical expression. Apart from the summative nature of this event, it also provides a prominent stage for the musician to present a recital that is indicative of the musicians themselves, or of something that they value deeply. Using this opportunity, I wished to showcase something dear to myself; the use of the tuba outside of its defined rolls and preconceived standards. Often, one unfamiliar with the instrument assumes it to be a loud lumbering rumble in the back of an orchestra, or a comic display in the back of a marching band, and, while it is capable of doing both of these things, there is far more artistry to the instrument’s voice. Though hidden from the public eye, the versatility and sonorous timbre of the tuba is where I have found myself through its expression. This other side of the instrument is what I hoped to showcase in this thesis recital.

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“Breath and Sounds for Tuba and Stereophonic Tape,” Beatrice Witkin Papers, Collection #2006-45, Special Collections & Archives, Wesleyan University, Middletown, CT, USA.

In conjunction with exploring the versatile solo side of the tuba, I also aimed to integrate a particular interest of mine that my time studying at the University of Northern Iowa has cultivated, which is performing music with electronic accompaniment. Though it is a new field, I am intrigued by the options it offers to composers and performers alike. There are new options for sounds, forms, media, and more, which are growing and developing at a rapid rate. Between these two facets, I feel I have found a balance in this thesis that showcases both my vision of the tuba’s role as a solo instrument and the visions of these composers using it with the electronic medium.

The tuba is a comparatively young instrument in the world of music, existing for less than two centuries. In that time, especially during its early lifetime, there was not solo literature written for it, and what solos were performed were either transcriptions of works for other instruments or comic in nature. The first concerto for the instrument was the Ralph Vaughan Williams Concerto, premiered in 1954, which is not very long ago at all in musical terms. Consequently, though the field of solo tuba literature has expanded greatly since the Vaughan Williams Concerto, compared to most other instruments there is a significantly narrower field of legitimate literature to study. This is perhaps not all bad, for the lack of good works for the tuba has led to quite a burst of creativity in modern composers’ minds to make new music to fill out the genre. These new works are of many varieties, but one specific kind that caught my attention is solo literature written to be performed with an electronic recording. Originally, when this field started to appear in the 1970s, the medium was tape, though as time progressed CDs, DAT tapes, and most recently computer playback have gradually replaced the tape machines. This field is particularly interesting to study because the possible sounds of the music have changed greatly over the course of the fifty or so years it has been in existence, reflecting trends in compositional
techniques. The content of the background media also changed with time, as technology evolved to create and recreate a wider variety of sounds.

With this thesis, I worked with the goal of giving the audience an aural snapshot of some of the possibilities of the genre. Despite it existing for a short period of time, the varieties of music within are vastly different in style and character. With this as a focusing point, I proceeded to design the recital aspect of this thesis to highlight not only the stylistic variety, but also the diversity of composers backgrounds reflected as well. A second point that guided my design of the recital was to consider the chronological aspect of this music. As aforementioned, the drastic changes in technology have changed what sort of music is possible within the genre. This is something I felt I should also highlight if I were to be giving an accurate depiction of the oeuvre as a whole.

After I had settled in on the idea of a recital of all tuba and fixed electronic media, I needed to find out more about what existed in the genre. This aspect ended up being somewhat difficult, as there is very little academic writing on the subject. I searched in print and online to the best of my ability and found all of the works that I could locate that fit within the qualifications of the research. Once I finished sorting through examples and listening to recordings, I was struck by how diverse in content this field is; even more so than I had considered in preparation for this project. Works ranged in context from those such as McMillan’s *Tomes* which are as near as one can get to having an orchestra accompany themselves on a solo recital to music that forces the listener to reconsider their schema on what music truly is, such as demonstrated in the Ross *Piltdown Fragments*.27 This naturally made the

next step of the project all the more difficult, as with such variety, it is hard to choose what to highlight on the recital.

When I began to sift through all of the options I had to consider, there were three leading principles I chose to follow while selecting the pieces I would be able to play on the recital portion. First, which pieces provided a wide variety of what is possible within the genre? Second, what pieces can I choose that give a wide chronological view of how the genre started and where it is today? Thirdly, which pieces can I physically prepare and play in the context of an hour long recital? Perhaps, in a not surprising revelation, this wound up being a quite difficult task in all capacities. In the following section, I will discuss briefly the five pieces I chose in the recital order and how they fit the three qualifications.

First is the work *Floating Dreams*, composed by Peter Meechan.²⁸ Stylistically, I was searching for a work that well represented the lyrical, songlike nature of the solo tuba. I was able to find this in Meechan’s work in a way that connected well with my ear and musical tastes. I feel this work well represents the usage of synthesised instruments to create the backing track. Though some of the sounds are direct imitations of acoustic instruments, as is the case in other works I am presenting, I enjoyed that this piece places such a melodic emphasis on synthesizer unique sounds, such as that of the choir pad. Meechan discusses in the program notes to this work that his inspiration for the work stems from many styles, from classical sources to the works of Pink Floyd.²⁹ This is one of the more recent works I came across while researching, being published in 2012. Technically speaking, *Floating Dreams* sits on the easier side; however, the long phrases and exposed recording lead to significant musical challenges.

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²⁸ Peter Meechan, *Floating Dreams.*
²⁹ ibid.
Second is Neal Corwell’s *Improvisations on a Bach Sarabande*. In researching tuba and electronic music, the name Neal Corwell kept coming up, and indeed after looking into his catalogue of works, he has produced multiple pieces worth considering. I chose the *Improvisations* specifically over his more well known *New England Reveries* because it allowed me to highlight more differences in style of composition with in the context of the recital. I was also drawn to this work aesthetically, due to my own enjoyment of the music of J. S. Bach and the cello suites upon which this piece quotes. In style, this piece directly lifts portions of melodies from J. S. Bach’s fifth cello suite, which originally was unaccompanied. The accompaniment provided on the CD is all the work of Corwell. As it discusses in his footnotes to the piece, all of the sounds of the recording are created by analogue means on the composers euphonium. While there are obvious pitches as normal, he also utilizes samples of rushing air sounds as well as whistling produced by blowing over removed pipes filled with water. Because of the source of this accompaniment, it is in many ways like playing a duet with the composer—something that is quite unique in the recital context. Chronologically, this work is from 2003, and represents the middle of the time scale of the genre. Thirdly, this work did seem to be something I would be able to perform on the recital. It is the shortest of the works I am presenting, so duration is not an issue in this case. Technically speaking, the challenges of this work lay in intervallic leaps; however, it seemed to be manageable. As will be the case of all five of these pieces, I will discuss more of the technical aspects in the following section of preparation.

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30 Neal Corwell, *Improvisations on a Bach Sarabande*.
31 ibid.
Thirdly, I chose the work *Nation*, by Elizabeth Raum.\(^{32}\) This work is very different from the others I chose because of its Neoclassical callback to the Theme and Variation form. In contrast, none of the other works I am performing have such a formal structure. In addition, though it is a MIDI synthesis, the primary accompanying instrument voice in this work is ironically the piano. It is accompanied by many different other sounds meant to evoke an image of the location that the music is attempting to depict, such as car honks, gulls, or thunderclaps. As the piece progresses, more instrumental voices are utilized, including sounds similar to those found in the Meechan, though the context is vastly different. This work is from 1998, right at the turn of the century, well representing technological trends of the time. This piece is by far the most technically challenging of the works on my recital, in both stylistic contrast and in range endurance.

The fourth work is the oldest of the five, and, as discussed in the literature review, one of the very first pieces for electronics and tuba, Walter Ross’ *Piltdown Fragments*.\(^{33}\) Avant garde in nature, all of the sounds of the backtrack are either sampled sounds, such as the human voice or the theremin, or are electronically generated sounds such as pops and hisses. Originally, the work was performed with tape, and the work would have been edited on tape as well. Whereas the above three pieces are strongly based in melody, this work is quite far removed from that. Instead, this work is built of pitched fragments or gestures of shapes that lead in different directions. The work utilizes extensive extended techniques, which I will discuss later, that mimic the sounds the electronic track, leading to interesting moments of interplay between the two voices. Another difference of this work is that the score for the tape is graphically noted with images of the sounds. Explained in a different way, instead of staff paper with notated

\(^{32}\) Elizabeth Raum, *Nation and Secret.*
\(^{33}\) Walter Ross, “Piltdown Fragments.”
pitches, instead are lines, shapes, dots, and squiggles that remarkably convey well the sound of the tape. Technically, this piece is difficult to play because of its atonal composition method. Additionally, the extended techniques pose even more difficulties.

Finally is Alice Gomez’s *Shaman Returns*, a work that combines elements of funk with that of traditional Native American and Aboriginal musics. Another of the newer works, written in 2013, this work explores culturally diverse music like none of the other four. I feel this illustrates the potential this field has for bringing more people together to experience more diverse and beautiful music, something that tubists are often excluded from. I feel it is also very important to showcase that music is more than just that of Western European tradition, a fact that is also often ignored. This work utilizes rhythmic elements in a unique way, and in many ways the rhythmic motor is the most stylistically important part of the piece. Also, as mentioned in the literature, the work does require the use of didgeridoo. Technically, *Shaman Returns* demands extreme clarity of articulation, which can be challenging on the tuba, and it also demands a very wide tessitura and flexibility from the performer.

Once I had all of these five pieces selected, next came the process of learning the pieces and preparing them for concert. In many ways, this process was similar to how any musician would go about preparing a recital, of which there is much literature already written. I will instead focus on the ways that this process was different from a typical recital preparation because of both the electronic aspect and how it was personally different based on my own experiences.

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34 Alicia Gomez, *Shaman Returns.*
The most obvious difference with this genre is that one does not have to schedule rehearsal times with an accompanist. For those unfamiliar with the process, scheduling rehearsals can be one of the most stressful aspects of the process because of how much must be accomplished in such a short amount of time. A second benefit that comes from this is the ability to play the accompaniment track through any sound system during any normal practice time. This makes it much more manageable to deal with the difficulties of playing with a fixed recording. One difficulty that this can cause is that the performer might become too focused overall running the piece and miss the work on small details. To counteract this possibility, I treated the first several months of practice as I would a traditional solo and worked it without adding it to the recording. In this way, I was able to focus on the small details and building blocks from the beginning.

With the recorded backtrack comes the biggest difficulty of the genre: the accompaniment is wholly inflexible to dynamic and tempi changes. While one might practice to a metronome regularly, in the context of solo literature, it is highly unnatural to not flex the time of the piece at one owns discretion based on the music. Additionally, all pauses or breaks must be of a very precise duration or it will not align with the track. I think, for me, this was the hardest aspect to learn how to accomplish successfully. The rehearsal technique I found most beneficial was singing and playing while following along in the music. Additionally, learning the piece with timing marks corresponding to the recording proved very helpful as a teaching tool. This naturally also means that if the performer makes a mistake and gets separated from the tape, there is no way to fix it apart from jumping to the proper point to realign. Another difficulty that arose because of this inflexibility was with learning how to musically pace the phrases to correspond well with what was happening within the track. This applies to more than just the timing of events within the track, but also with dynamic shading. Because the track sits at a
fixed volume level, I had to learn how to shape what I was doing more to fit the context of the unalterable background. This meant some sections had to be voiced louder, so as to still be audible, and that some sections had to either grow or diminish in intensity at a different pace than I would have originally chosen.

In learning these pieces, I have discovered that many of these works are quite difficult in technique for several different reasons: often there are drastic style or tempi shifts, extended range and prolonged passages of high tessitura are prominent, and there are frequent uses of extended and non-traditional techniques. Difficult stylistic shifts are very prevalent in the Raum Nation and the Ross Piltdown Fragments. Both works require aggressive shifts in style or speed that come as a surprise to one not familiar with the music. In rehearsing music, often transitions are the most difficult passages to execute properly, and with pieces such as these, the number of large scale transitions is to such a density as to make it much more difficult to maintain musical continuity in the work. One technique that I employed to work on this challenge was to focus specifically on the measures preceding and following the shift without the recording, then playing the section with the recording, and finally to repeat the process. By alternating I was able to focus on the technical aspects while still keeping the overall context in my mind’s ear.

As I mentioned, all of the works on my recital are quite extreme in range, mostly on the upper side of the tuba range. All pieces extend up to at least Eb4, and most go up to G4 (which, as context for non tubists, is quite high relatively speaking). While the range is extreme, that alone is not the entire trouble--rather the tessitura while at that range is where major fatigue and intonation issues begin to develop. Raum’s Nation is the most aggressive in this manner. As one can hear from the recital itself, the melody sits at the top of the bass clef for the majority of the work. In fact, this piece also leads to an interesting discussion of an interpretation choice I made in regards to this work. There were a couple sections in the work, notably in movements III and
IV, where I chose to drop the music down one octave. This was done for the sake of endurance; as I still had other pieces to play on the recital, I couldn’t justify hurting their sound to muscle out the spots I could not play confidently at pitch. As I mentioned earlier, there are examples in the *Nation* recording of octave adjustment already, so I feel what I have chosen to do is precedentended and yields the most authentic aural result to the intent of the music. 35 Finally, the extended techniques in these pieces provide another level of skills to develop and use beyond what is taught in standard lessons. The *Ross Piltdown Fragments* has the best examples of these, utilizing multiphonics, flutter tongue, pitch bending, half-valving, and rips. With learning these techniques, I relied on the expertise of my lesson instructors, as reading about the technique only helps so much. Additionally, the reference recordings were immensely important when listening to judge if what I was doing was getting close to the desired sound. In *Shaman Returns*, the added use of the didgeridoo provided a whole additional level of difficulty, as it is a completely different instrument in its own right. An instrument originating in Australia, it is a tube without valves or key. The primary function to change the sound is changing the shape of the oral cavity in combination with vocalizations while buzzing as with other brass instruments. In addition, this instrument traditionally utilizes circular breathing. The true challenge comes in incorporating it within the piece, as I found switching embouchures back and forth between the two I found extremely difficult. Learning all of these various techniques and timbre shifts has helped me to develop my versatility and my personal concept of what sounds are possible on the tuba.

35 Raum, Elizabeth. *Nation and Secret.*
The recital itself was perhaps the most rewarding aspect of this whole process, though it is challenging to quantify why. I will look back at the recordings of the recital through several different lenses, with a goal of identifying what some of the most salient takeaways are for myself in regards to this project. It is difficult to look back at a recital in retrospect, as a performer, for what is the purpose for looking back? If one does so with the goal of hearing “how it went” so that one can learn what areas to focus on improving--then perhaps it is not such a difficult question. In observing in this capacity, it is easy for myself to be critical of my work and my skill level. I can easily hear the fatigue begin to set in as the recital proceeds, errors in intonation or rhythm, and straight up missed notes. I know that articulation clarity, tone quality, and technical facility are three aspects of my sound I need to spend time with. But is this sort of reflection healthy? And does it align with the goals of this project?

Another way to look back on the recital is to consider how it made me feel during the entire process. This was not my first time presenting a recital, so I expected to have a good idea of what the process feels like and what sort of effects those have on myself in the moment. However, this was my first time performing a solo recital, and as I discovered, that did not correlate as much as I thought it would. Being on stage alone, without accompanist, only with a speaker, surprisingly was not frightening. I felt comfortable presenting my work, because I felt it would have meaning to the audience, and I feel as though my performance of the material did achieve that meaning.

A final way to examine this recital is to look at how it functioned in the primary purpose of this paper. My primary goal of the recital aspect was to present the audience with an experience that well represented the field of tuba and fixed electronic media. It was designed to be both informative and entertaining, giving the audience a chance to experience something unique. I feel that because of my preparation in selecting literature, the programming aspect
ensured the accuracy of representation and diversity. In the performance aspect, both reflecting retrospectively to the moment and listening back to the recordings, I feel that the emotional content of the music achieved the remainder of the goal. Time will tell if the evening concert will create any impact on the audience moving forward; but for my part, I feel the recital achieved its goal of the music in the moment.

I have included with this paper a CD that has the recorded tracks from the concert. I stated at the beginning that the goal was not the creation of recordings, but rather the recital. I still stand by that aspect, but yet I include the recordings. These are meant to serve as an artifact of the recital, so that others later might experience a portion of what I discussed here in this thesis, as music can only be described in words to a certain degree. The Appendix lists the track numbers.

As mentioned before, this field is still developing and is quite young musically speaking. Because of this aspect, the concept of performing a recital that is solely this genre of music is even more out of the ordinary. I feel that the thesis aspect of the recital adds a whole second layer to this, since I spent such time digging into the changes of the genre over time and exploring as much as I could find for the substance and diversity of the oeuvre. When judging the value of an artistic project, it can sometimes be difficult to quantify why it matters and what impact it has on those who experience it. From a pragmatic perspective, I hope that this reflection and literature review can find its way into the hands of others who are eager to explore the possibilities of the genre. In my experience, to get into fields such as this, it can be very helpful to receive encouragement and guidance from both mentors and literature; if I can help be that guidance in some way to help someone find their musical voice, that would make the hundreds of hours of preparation worth the while.
In the introduction, I mentioned that the recital itself was to be the main focus of the project, specifically in reference to the focus placed on recording the pieces. Yes, I did have the recital recorded and have included them here as evidence and example; yet, I would reiterate that their value is secondary to the experience of either performing or attending the recital. While I could go into a lengthy philosophical review of perspectives on live music versus that of recorded, I feel that would be out of place with the focus of the project. Instead I will simply say there is something primally different between hearing the ghost of music and feeling the connection between the musicians and their work. A final aspect of value that is important to recognize when critiquing art is the importance to the creator of the art. To me, it is difficult to state concisely in words the value I derived from conceiving and completing this project. It challenged me to reconsider my concept of what music expresses and how to internalize that expression. I had to grow tremendously in my technical capabilities in order to perform the music I selected. I also had to grow tremendously in my ability to maturely convey musical expression beyond my personal limitations. Expression in music is such a fickle thing. One can easily think that what they are doing musically is very demonstrative and easily heard; yet, all too often this is quite the opposite. It is difficult to learn how to get out of this personal shell: with this project, I feel I have taken some important steps to improving this.

In short, this project’s value lies in three different facets. First is the lasting resource in starting to pursue this genre. I hope that this work will be an aid and resource to others in the future. Second, I feel the connections I have made in the context of the recital are of noteworthy aesthetic value, and with that the self learning that I underwent has made the project beyond worthwhile in my eyes. Perhaps my favorite aspect of this whole project was the opportunity to use my passion for musical performance on the tuba and utilize it in such a diverse setting. I
hope others see this and take inspiration to find where the music in their heart is at and to not let preconceptions prevent that.

IV. Appendix

Track Listings

1) *Floating Dreams* (2012) Peter Meechan


3) *Nation* (1998) Elizabeth Raum
   Theme
   I) Coast
   II) City
   III) Frozen North
   IV) Train Across the Prairies
   V) Majesty of the Mountains

4) *Piltdown Fragments* (1975) Walter Ross

5) *Shaman Returns* (2014) Alice Gomez

V. Bibliography


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