Four Works for Solo Timpani: An Analysis and Performance Guide

D.M.A. Document

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Abstract

The study of timpani as a solo instrument is an integral part of an undergraduate and graduate education in percussion. Performance of a solo piece on this instrument is typically required for entrance into such programs, and is also usually a compulsory element in percussion recitals of varying degree levels. Despite this level of importance placed on the idea of learning timpani solos as a means to furthering one’s education, there is little existing scholarly research written on the subject of timpani solos. One possible reason for this is that, often, timpani solos are not programmed as much in musical arenas outside of the academic, particularly in comparison with other solo percussion instruments, such as the marimba or pieces written for multiple-percussion set-up.

This document will closely examine four regularly performed timpani solos: *Four Pieces for Timpani* by John Bergamo, *Variations for Solo Kettledrums* by Jan Williams, *Raga No. 1* by William Cahn, and *Prelude No. 3* by Christopher Deane. In addition to providing biographies of each of the composers whose works are examined, this document will discuss the context in which each of the pieces was written, offer musical analyses of the works themselves, and provide suggestions to future performers regarding the execution of various technical and musical elements within each piece.
The desired outcome of this document is to provide percussion students and teachers with a guide to these frequently performed works that will aid them in their study of them and will enhance future performances. It is the hope of the author that by illuminating this often neglected genre, there will be a renewed interest in solo timpani performance, and that other examples from the literature will begin to be examined using a similar methodology.
Dedication

This document is written in memory of John Bergamo.
Acknowledgments

There are many people to whom I owe a great deal of gratitude upon completion of this document. First, I would like to thank my percussion teachers at OSU, Dr. Susan Powell and Prof. Joseph Krygier. Thank you both for sharing your knowledge, guidance, and instruction during my time here at OSU, and for continuing to be such stellar musical role models and mentors. I would also like to thank Dr. Powell for her service to my doctoral committee as my advisor, as well as the rest of my doctoral committee, Dr. Jan Edwards, Dr. Russel Mikkelson, and Prof. Karen Pierson; thank you for your support throughout my degree program.

It would be extremely remiss of me to not acknowledge and thank all of my former teachers. It truly is because of them that I am where I am today, and it is their wisdom, advice, and knowledge that has sustained me throughout my career thus far. Thank you Jeffrey Irving, John H. Beck, Michael Burritt, and Dr. Kristopher Keeton.

Thank you to the three composers for whom this document literally would not be possible, for their assistance (and patience) provided me with incredible insight and ideas: Jan Williams, Bill Cahn, and Christopher Deane. Thank you, John Bergamo; you are greatly missed by the percussion community, and it is my greatest hope that I was able to perform and discuss your work in a way that does it proper justice.
To the OSU Percussion Studio for being a wonderful and supportive group of people whom I consider fortunate to work with everyday; to Zachary Koors for being a huge assistance to me in taking the photographs for this document (and also for being my “go-to theory guy”); and to Kevin Estes for serving as my “tabla model”: thank you all.

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To my father, who unfortunately left this Earth in 2012, but until the very moment that he did so, continued to shower me with nothing but love, support, and encouragement, without which I would not be able to continue to pursue my dreams.
There is not a single day that goes by that I do not think about you.

Finally, to my mother. Thank you for your love, support, and encouragement, and also for being the ultimate role model to me. Your humor, strength, wisdom, and work ethic are just a few of the reasons that I look up to you. Thank you for being understanding of (and being my number one cheerleader of me pursuing) my dreams and goals, even if it means that I have to move far away from home. As I write this, I cannot exactly say what the next chapter of my life has in store for me, but I know that when I find out, you will be the first one there to guide me through it.
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Chapter 1: INTRODUCTION

Timpani have the deepest roots in the history of Western percussion. It was the first percussion instrument to be introduced into the orchestra, and since then have been the dominant feature of the orchestral percussion section, and sometimes even being the only instrument in the orchestral percussion section. As the instrument itself had its own innovations and became more modernized, composers of orchestral works began to write for the instrument in new and exciting ways. They went from writing for a simple two drum set up outlining the basic dominant-tonic relationship of a piece, to writing for upwards of five drums. These innovations continued even further by way of the utilization of frequent pitch changes, numerous implements that produce a variety of sounds and colors, and simply giving the instrument a more prominent, featured role in the ensemble texture.

The early 20th century saw many innovations in writing for percussion. One reason for this can be attributed to the rise of the modern percussion ensemble in the 1920s, 30s, and 40s. Also, there was an increased interest by composers to write more for percussion and the demand from percussionists for more works for their genre. Composers were now writing solo works for these instruments that were once relegated strictly to ensemble playing. These works featured more new ways of approaching these
instruments, calling upon the performers to utilize non-conventional playing implements and other extended techniques, as well as using influences from the music of different cultures, styles, and idioms.

Many timpani solos that have been written over the years have become standards of the solo percussion repertoire, often being programmed on both collegiate and professional recitals. This document will closely examine four timpani solos that represent this new standard. In addition to being frequently performed works on the concert stage, they are also regularly used as audition pieces for undergraduate and graduate degree programs and in audition interviews for collegiate teaching positions. In fact, it has become standard practice that entrance into a collegiate percussion program of any degree level, as well as the culmination of a degree program by way of a recital, is dependent on the performance of solo pieces on at least the three main instrument groups: snare drum, marimba, and of course, timpani. In short, timpani solos encapsulate much of what is so exciting about solo percussion repertoire, in general: when executed at a high level, they demonstrate a mastery of both technique and virtuosic performance on instruments that feature a wide breadth of sound possibilities for thought provoking and moving musical material.
PURPOSE OF THE DOCUMENT

The purpose of this D.M.A. document is to look closely at four standard timpani solos: *Four Pieces for Timpani* by John Bergamo, *Variations for Solo Kettledrums* by Jan Williams, *Raga No. 1* by William Cahn, and *Prelude No. 3* by Christopher Deane. The objective is to look at these pieces through multiple lenses—the historical, the analytical, and the practical—in order to provide percussion students, teachers, and performers with a guide that will enhance their study of these works. These pieces were chosen specifically because of the frequency that the author of this document has experienced them either as an audience member at percussion recitals or as an adjudicator in undergraduate and graduate percussion auditions and juries. For the purpose of acquainting herself with these pieces, the author also learned and performed each of these pieces during the writing of this document.

*Eight Pieces for Four Timpani* by Elliott Carter is another timpani solo that is frequently performed in these settings, and was frequently mentioned by the various composers interviewed for the research of this document. While this work is certainly monumental in the history of solo timpani repertoire (and solo percussion repertoire, in general), pre-existing literature on this piece made it seem redundant to revisit it in this document, whereas the four pieces that are being explored in this document have very little to no scholarly work completed on them. By examining the historical context in which these pieces were written, the actual musical material, as well as offering some suggestions as far as the technical and logistical concerns of each piece, it is the author’s
hope that there will be a renewed interest in the genre of solo timpani, perhaps leading to
the increase in programming of timpani solos in percussion recitals, new commissions for
the instrument, and further research on other examples from the repertoire.

NEED FOR THE DOCUMENT

While there is some published information about solo timpani literature, including
but not limited to the four pieces being discussed in this document, much of it is succinct
in nature and offers only small glimpses into each respective work. As previously
mentioned, *Eight Pieces for Four Timpani*, is one notable exception to this, as it has
already been the topic of a doctoral dissertation.\(^1\) Additionally, various timpani concerti
have been examined through this kind of scholarly lens, but because this document
focuses on timpani as a *stand-alone* solo instrument, as opposed to a solo instrument with
some form of accompaniment, the author sees these concerti as being outside the scope of
this particular study. *Four Pieces for Timpani* and *Variations for Solo Kettledrums* are
discussed in two very informative, yet very short, articles in the Percussive Arts Society’s
publication, *Percussive Notes*.\(^2\) With regard to *Raga No. 1*, there is an article on William

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\(^1\) The dissertation that the author of this document is referring to was written by Matthew
Dean Altmire in partial satisfaction for the degree Doctor of Musical Arts at the
University of California, Los Angeles. It is titled, “Time Travel: Musical Metrics in
Elliot Carter’s *Eight Pieces for Four Timpani*,” and was published in 2013.
\(^2\) These two *Percussive Notes* articles were used as a resource for this document and will
be briefly referred to in each of their discussed pieces respective chapters. “John
Bergamo’s *Four Pieces for Timpani*: A Performance Guide” was written by Robert J.
Cahn’s blog on the website for his percussion group, NEXUS, that answers frequently asked questions about this piece. At the time of this research, the author of this document has yet to find any published articles or information about *Prelude No. 3*, aside from brief program notes and descriptions of the work found on various Internet outlets.

Timpani method books are a helpful resource for acquiring information regarding technical approaches to timpani performance, but few, if any, address timpani as a *solo* instrument, instead focusing on the application of technique in an ensemble (usually orchestral) setting. Furthermore, after surveying some of the most commonly used timpani method books, the author of this document has yet to find one that addresses the various extended techniques that are found in timpani solos, including the four being examined in this document.

Because these works are frequently performed and there is little to no scholarly research or published information about them, the author of this document feels the discussion of these four pieces is long overdue. Furthermore, the author believes that these works are true gems in the larger genre of solo percussion repertoire, and simply deserve closer examination.

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Damm and can be found in the October 1995 issue of the publication (Volume 33, no. 5, pages 53-56) and “Twelve-Tone Timpani: Jan Williams’ ‘Variations for Solo Kettledrums” was written by Thad Anderson and can be found in the August 2008 issue of the publication (Volume 46, no. 4, pages 48-50).
This document includes six chapters and a bibliography. Chapter 1 states the purpose and need for this study. Following this, Chapter 1 will also include a very brief history of timpani, from its earliest use in the orchestra through the present day (this will mainly focus on the most important technological, technical, and musical milestones of the instrument’s history). Chapters 2, 3, 4, and 5 will focus on each of the four chosen timpani solos, respectively. These chapters are ordered chronologically according to each pieces’ date of publication. Each of these four chapters will be organized into four subsections, which, in order, are a biography of the composer, review of any existing performance notes and/or composer anecdotes about the piece, the author’s own analysis of the piece, and a discussion of performance issues in the piece including the author’s suggestions for executing them.

The “Performance Suggestions” section of each chapter will be organized into the following categories: stick and/or mallet choices, set-up considerations (placement of music stands, consideration of sitting vs. standing, placement of African instruments in Prelude No. 3, etc.), sticking and or muffling and/or dampening choices, and a

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3 The term, “sticking” refers to the system by which a percussionist determines the ordering of hands when executing a passage of music. This term can be applied to any percussion instrument that is performed with hands or implements. When determining stickings, percussionists will often indicate their chosen sticking by notating an “R” symbol above or below notes that are to be played with the right hand, and an “L” symbol above or below notes that are to be played with the left hand. There is no general rule for how to determine stickings, other than the performer selecting a system that best executes the musical phrasing of a given passage in a way that is most physically efficient.
discussion of extended techniques. Chapter 6 will summarize the document as a whole. Each chapter will include photographic illustrations, as well as direct examples from the score as a way of supporting and providing visual representation of the text, particularly with regard to the performance suggestions. The author of this document was very fortunate to conduct interviews with three of the four composers being examined, and their information was perhaps the most helpful resource in understanding these works.\(^5\)

The author recommends that the reader of this document locate copies of the scores to the four works being discussed to reference while reading this document. While several examples from each of the respective scores will be included as figures throughout each chapter, the author feels that having a score will provide the reader with an overall “big picture” look at the work, particularly because few (if any) professional recordings of these pieces exist, respectively.

Musical figures and examples excerpted from the musical scores are presented in each chapter to aid with the understanding of the accompanying analyses and performance suggestions. All figures have been scanned directly from the original music. Some figures are written musical examples that were rewritten by the author using music notation software in order to demonstrate ideas including the re-beaming of excerpts.

\(^4\) The terms “muffling” and “dampening” are somewhat interchangeable, and they refer to the act of shortening the natural length of resonating ring produced after striking a percussion instrument by way of some kind of external pressure, usually by way of depressing the hand or fingers into the surface that was just struck. With regard to timpani, muffling is done for musically contextual reasons in an ensemble situation, such as to prevent the excessive ring of a certain tonality from seeping into a section of new tonality. In the timpani solos being examined in this document, the composers typically have notated for the drums to be muffled for reasons of articulation and timbre change.

\(^5\) The author of this document consulted with William Cahn, Jan Williams, and Christopher Deane. John Bergamo passed away in 2013.
Examples such as these have captions describing them as such. Some of these original musical examples feature the addition of sticking indications where applicable.

Permission was granted from William Cahn and Christopher Deane to use the musical examples from *Raga No. 1* and *Prelude No. 3*, respectively. Permission was granted from Colla Voce Music LLC to use the musical examples from *Four Pieces for Timpani* (copyright © 2000, 2013 transferred to Colla Voce Music) and *Variations for Solo Kettledrums* (copyright © 2000, 2013 transferred to Colla Voce Music). All photographs were produced and are copyright © 2016 by the author.

A BRIEF HISTORY AND EXPLANATION OF TIMPANI

According to the Encyclopedia of Percussion, timpani or “kettledrums” are:

the only member of the drum family in Western art music that can produce notes of definite pitch and thus take part in the harmonic fabric of the music. Each drum in the orchestra is tuned to a given note according to the directions in the musical score. During the performance of a work their pitches can be changed as required by tightening or slackening the drumhead, either by means of screws

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6 Each of these pieces is published by their respective composer.
7 The author of this document also sought permission from Jan Williams, personally, to reprint examples from *Variations for Solo Kettledrums*.
8 Timpani is the Italian word for the word kettledrums, and is more commonly used (Timpano refers to one single drum, whereas timpani refers to multiple drums). For purposes of consistency, the author of this paper will refer to timpani by their more commonly used, modern name, as opposed to kettledrums.
placed equidistantly around its circumference or by other mechanical means such as a lever or pedal.\(^9\)

A standard complete set of timpani consists of four drums with the following diameters: 32 inches (81.3 centimeters), 29 inches (73.7 centimeters), 26 inches (66 centimeters), and 23 inches (58.4 centimeters). Each of these drums span a range of about a perfect fifth, respectively, from the lowest note of the 32-inch drum being a D-natural (two octaves below middle C), to the highest note on the 23-inch drum being an A-natural (three semitones below middle C). Extra timpani may be added to a set of four, as needed; timpanists can also opt to use the bare minimum of drums needed for a work, for example, if a part only requires two drums, they will only perform from a set-up of those two drums. Timpani music is notated in the standard bass clef. It should be noted that at one time timpani were considered to be a transposing instrument. Even though they sound at concert pitch, early examples of the repertoire feature parts in which composers wrote for them in the key of C with some indication in the score of what the actual intended pitches were.

European timpani were preceded by the naker, which is Arabic or Saracenic in origin and was usually carried in pairs at the waist by means of a harness, and were often played in outdoor settings by military and courtly musicians. Nakers spread more throughout Western Europe during the period of the Crusades, making their way there by

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the fifteenth century.⁴⁰ Nakers were then followed by actual kettledrums, which, similar to nakers, were carried by a harness in pairs, and were often played as cavalry instruments on horseback by the Muslims, Ottoman Turks, and Mongols.⁴¹ Over the course of the next century, these early timpani made the transition from being outdoor instruments used mostly for parades and royal celebrations to being indoor instruments that were often featured in ensembles.⁴² The music itself was still rather courtly in nature, but whereas when these instruments were carried on harness and the performers largely improvised their music, they were now playing from written parts, often accompanying trumpet fanfares during processionals, marches, and even during battle and for various regal events of state.⁴³ During this time, timpani were always played in pairs, but generally if they were being played outside, they were on horseback, and if they were inside, they were secured on stands.⁴⁴

The earliest known written part for timpani was in Nicolas Hasse’s *Auffzug 2 Clarinde und Heerpaucken* in 1656, but this “part” is merely a fragment; the more official instance where a composer specifically scored a written out part for timpani was in 1674 for the opera *Thésé* by Jean-Baptiste Lully.⁴⁵ Rhythmically, timpani parts written during this part of the 17th century were generally a simplified version of the lowest trumpet part in the ensemble. Harmonically, these timpani parts consisted of only two

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⁴¹ Ibid., 16.
⁴² Ibid.
⁴³ Ibid.
⁴⁴ Ibid., 17.
⁴⁵ Ibid., 79.
notes (for two drums), and were either the tonic and dominant or tonic and subdominant of the key.\textsuperscript{16}

As composers began to write more for the instrument in terms of quantity of pieces, they also began to write more for the instrument in terms of quantity of musical material. Henry Purcell is noted for writing the first-known solo passage for timpani in the opening to Act IV of his 1692 opera, \textit{The Faerie Queene}.\textsuperscript{17} Composers also began writing for more than the standard pair of drums, often calling for anywhere between four to six drums, as is the case with Wolfgang Amadeus Mozart’s Divertimento No. 6 for 2 Flutes, 6 Trumpets and 4 Timpani K. 188, in which all four of the drums called for in the music are consistently used throughout the piece.\textsuperscript{18}

It was Ludwig van Beethoven who further expanded the role of the timpani beyond just providing rhythmic support to the ensemble, often writing solo passages (\textit{Fidelio}, 1805\textsuperscript{19}), and non-conventional (for the time period) tunings, such as his use of octaves in the Scherzo of his Ninth Symphony.\textsuperscript{20} Many of these innovations in the composing of timpani parts were a result of the various developments in the construction of timpani, which were occurring simultaneously during this time period. Composers felt limited by the apparent norm of having to compose for only two drums, as well as the trend of having to only compose in either perfect fourths or perfect fifths.\textsuperscript{21} Whereas timpani were once tuned using individually tunable threaded bolts operated by hand, a

\textsuperscript{16} Ibid., 18.
\textsuperscript{17} Ibid., 80.
\textsuperscript{18} Ibid., 81.
\textsuperscript{19} Ibid., 82.
\textsuperscript{20} Ibid.
\textsuperscript{21} Ibid., 25.
process that was time-consuming, awkward, and noisy, the first rapid-tuning device was invented in 1812 by Gerhard Cramer in Munich.\(^\text{22}\) While still considered bulky and primitive in form, this was the first instance in which there was one, single tuning mechanism to change the pitch of the drum, as opposed to over a dozen single screws.\(^\text{23}\)

There were several more innovations with regard to tuning technology during this time, all of which had the advantage that they were more efficient than the early models of timpani, but still required the use of one’s hands in order to do the actual tuning. It was not until the 1881 invention of Dresden model of timpani, patented by Carl Pittrich of the Royal Saxonian Orchestra, that the instrument truly made a giant leap towards the one used in the modern day.\(^\text{24}\) By employing a foot pedal, the Dresden-model was the first machine drum whose pitch could be manipulated solely by the feet, rather than the hands. The player could now continuously play without having to stop to change the pitches. They could also now make adjustments to the pitches so that the drums would always be in tune with the ensemble, as even with modern-day drums it is quite typical for drums to become out-of-tune as a result of excessive playing and environmental factors.\(^\text{25}\)

Other innovations in the construction of timpani and their tuning mechanisms occurred throughout the rest of the 19\(^{\text{th}}\) century, but it is interesting to note that the Dresden-model, with very few and minor alterations, continues to be used today. As this model began to spread throughout Europe, composers began to realize what these new drums were capable of, and it was during this part of the late 19\(^{\text{th}}\) and early 20\(^{\text{th}}\) century

\(^{22}\) Ibid., 42.  
\(^{23}\) Ibid.  
\(^{24}\) Ibid., 53.  
\(^{25}\) Ibid., 55.
that they began writing more complex timpani parts. Gustav Mahler and Igor Stravinsky wrote for two timpanists to play throughout the entire work in Symphony No. 2 (1895) and *Le Sacre du Printemps* (1913) respectively, the latter of which calls for a piccolo 20-inch timpani, and highly syncopated rhythms and shifting meters. Béla Bartók’s Concerto for Orchestra (1943) features both heavy use of glissandi and rapid pedal tuning, while Edward Elgar’s *Enigma Variations* (1899) calls on the player to roll on the drums with snare-drum sticks (often substituted with coins, which, needless to say, can still be considered quite groundbreaking), and virtuosic solo passages are featured in Frank Martin’s Concerto for Seven Wind Instruments, Timpani, Percussion, and Strings (1949).

The most noteworthy technological advancements in the construction of timpani in the 20th century occurred in the United States. The first American pedal timpani was designed by William F. Ludwig, Sr. in 1911. Perhaps the most critical innovation to come from Ludwig and his drum company came in 1920 when they introduced the “Natural Way Balanced Action” machine drums, in which the tuning pedal was held in place by a compression spring or tension balance, and a stiff wire linkage to the pivoting mountings of eight tension rods separated equidistantly around the circumference of the drum. These balanced action drums have been replicated by numerous other drum companies, and have been adopted by professional orchestras, universities, and even high schools and middle schools.

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26 Ibid., 35 and 82.
27 Ibid., 36-37.
28 Ibid., 58.
29 Ibid., 59.
While improvements upon tuning mechanisms may arguably be the most notable advancement in the development of modern timpani, there are numerous other factors regarding the construction that have affected how the instrument has progressed into the modern day. Drum sizes have expanded outwards in both directions from the initial 24- and 26-inch drums to as large as 35-inches and as small as 20-inches, to custom made utility drums of varying sizes.\(^\text{30}\) Drum heads have also undergone notable changes; whereas timpani used goat- or calfskin- heads for centuries, plastic heads, while lacking in some of the warmth and depth of sound that animal-skin heads have, have proven to be far more practical due to their ease of maintenance.\(^\text{31}\) Implements went from being short, wooden sticks in the early part of the instrument’s history, to sponge-covered sticks in 1825, then wool covered sticks in the 1850s, which would be the closest precursor to modern timpani mallets of today.\(^\text{32}\)

It is important to understand the lineage and heritage of timpani. This provides a context for understanding how solo literature for the instrument came out of its rich orchestral tradition. There is little written that documents any turning point in history in which solo timpani repertoire really began to proliferate into solo percussion repertoire. With regard to solo percussion literature, Jeremy Montagu cites the influence and proliferation of Eastern instruments—such as Javanese gamelan and India tabla drums—as examples of percussion instruments being used to fill a melodic role, as well as the introduction of solo works for Western percussion instruments—such as Karlheniz

\(^{30}\) Ibid., 62-63.
\(^{31}\) Ibid., 65-66.
\(^{32}\) Ibid., 69-71.
Stockhausen’s *Zyklus*—in the middle of the 20th century as reasons for why percussion began to be accepted as a solo instrumental medium.33

One of the trends the author found while researching this document is that many composers decided to write timpani solos because there weren’t many that had even been written at the time. They wrote solos to serve a particular purpose, whether it was to be programmed on a degree recital, or as a commission. It is interesting, then, that these solos, which were originally written to fill a noticeable gap in the repertoire, continue to be performed as frequently as they are so many years later. They have been able to withstand the test of time and all of the many changes in percussion repertoire.

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Chapter 2: Four Pieces for Timpani by John Bergamo

BIOGRAPHY OF JOHN BERGAMO

John Bergamo (1940-2013) was an American percussionist and composer, perhaps most well-known for his involvement in world music. Bergamo's career was quite varied, as he was involved in multiple areas and genres throughout, from classical to contemporary to world music. Born in Englewood, New Jersey, he received his Bachelor and Master of Music degrees in performance from the Manhattan School of Music in the early 1960s, where he concentrated on classical percussion under the tutelage of the legendary percussion educator, Paul Price, a prominent figure in the rise and development of the modern percussion ensemble.\textsuperscript{34} It was during this time that Bergamo was introduced to the music of such prolific composers of percussion music as John Cage, Henry Cowell, Lou Harrison, and Edgard Varèse.

At the same time that he was studying classical percussion at the Manhattan School of Music, Bergamo studied at the Lenox Jazz Center in Lenox, Massachusetts, situated nearby the Tanglewood Music Center. Bergamo cites this time as being a highly

\textsuperscript{34} B. Michael Williams, “John Bergamo—Percussive Renaissance Man,” \textit{Percussive Notes} 50, no. 6 (November 2012): 9.
formidable experience in his musical development. His instructors included such
legendary figures as Max Roach on drum set and Gunther Schuller in music theory and
music history, and his colleagues in the school included the free jazz musician, Ornette
Coleman.\textsuperscript{35}

After graduating from the Manhattan School of Music in 1962, Bergamo was
involved in a variety of performance opportunities. He studied at the Darmstadt
International Summer New Music Course, where he worked closely with Karlheinz
Stockhausen on his celebrated solo percussion work, \textit{Zyklus}. In that same year, Bergamo
toured throughout Europe and the Soviet Union as a percussionist with the Robert Shaw
Chorale as part of a State Department tour.\textsuperscript{36} Additionally, from the summers of 1963
through 1965 he was a Fromm Fellow in Contemporary performance at the Tanglewood
Music Center, where he worked closely with the composer and conductor, Lukas Foss.
During this time, it was Foss whom, after being appointed the director of the Buffalo
Philharmonic, invited Bergamo to act as the percussionist for the Creative Associates, a
new music ensemble organized by Foss in 1964 in conjunction with the Center for the
Creative and Performing Arts at the University of Buffalo, a program that was also
formed by Foss.\textsuperscript{37} Bergamo held this position from 1964 to 1966 and has said that, “He
[Foss] wanted people who were into new music, who were into improvising, who could

\textsuperscript{35} Ib. id.
compose, and who could conduct."³⁸ It was at this program that Bergamo interacted and worked with many important and crucial figures in contemporary and avant-garde music, including George Crumb, Vinko Globokar, and Maurico Kagel.³⁹ Bergamo also worked with the percussionist Jan Williams, whom he recommended to serve in the position of an additional percussionist for the ensemble after being former classmates at the Manhattan School of Music. Together, Bergamo and Williams formed the first percussion ensemble at the University of Buffalo, which can be considered a crucial turning point in the evolution of the percussion ensemble as a staple of collegiate music programs.⁴⁰ Jan Williams and his piece *Variations for Solo Kettledrums* will be discussed in the following chapter.

Near the end of his tenure in Buffalo in 1965, Bergamo was introduced to Indian music for the first time. He attended a live performance at the University that featured the tabla player, Ali Akbar Khan, and concurrently he was exposed to recordings of the tabla player, Chatur Lal.⁴¹ This experience proved to be a pivotal moment in Bergamo’s life, as it marked the beginning of a shift in his musical endeavors and interests for the rest of his career. He moved to the American West-coast, first arriving in Los Angeles, California where he studied tabla at the Ali Akbar College of Music. This was followed by a brief appointment at the University of Washington, where he taught percussion, and

³⁹ Ibid.
⁴⁰ B. Michael Williams, “John Bergamo—Percussive Renaissance Man,” *Percussive Notes* 50, no. 6 (November 2012): 11-12.
⁴¹ Ibid., 12.
also encountered mbira music for the first time by way of his interaction with the Zimbabwean mbira player, Dumisani Maraire.\(^{42}\)

In 1970, Bergamo accepted the position of establishing and leading the percussion department at the newly formed California Institute of the Arts, or CalArts, where he remained for 35 years. This position seemed tailor made for Bergamo, as the main criteria for a candidate was someone with an expertise in both world and contemporary music.\(^{43}\) While at CalArts, Bergamo continued to expand his knowledge and skill in the areas of world percussion, studying with his colleagues at the school on instruments such as the South Indian kanjira, ghatam, and solkattu, as well as African drumming and Javanese gamelan. He also helped to establish two successful percussion ensembles while at CalArts: Repercussion Unit in the 1970s and Hands On’Semble in the 1990s.\(^{44}\) To mark Bergamo’s numerous contributions to the field of percussion, he was inducted into the Percussive Arts Society Hall of Fame in 2012.\(^{45}\)

In addition to his performing and teaching, Bergamo was active as a composer, with over twenty published works for a variety of instrumentations, including pieces for percussion and non-percussion instruments.\(^{46}\) Bergamo first started composing when he began taking lessons with his colleague at the Manhattan School of Music, fellow

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\(^{42}\) Ibid.
\(^{43}\) Ibid.
\(^{44}\) Ibid.
\(^{45}\) Ibid, 13.
\(^{46}\) Ibid, 10-11.
percussionist and composer, Michael Colgrass.\textsuperscript{47} Bergamo cites these lessons as being highly instrumental in developing his own personal style of composing, remarking

Mike [Colgrass] did this incredible thing. He mapped out bar lines, and then he literally started drawing. And while he was drawing, he would start singing to himself. Once in a while he would put in a couple of sixteenth notes, or an accent, or a crescendo. He would start by literally sketching out the piece. Then he would go back and fill it in, and then maybe go back and take out stuff that was not necessary. So he taught me this way of composing—singing inside, thinking about almost the whole piece at once, from how it's going to start to how it's going to end.\textsuperscript{48}

After these initial classes, Bergamo was mostly self-taught in composition. He has cited his activities, students, and colleagues at CalArts as having provided him with opportunities to compose. One piece that was written during this time was perhaps his most well-know work, \textit{Piru Bole}, a piece that is consistently programmed on percussion recitals. It uses traditional Indian syllables, open instrumentation, and can be performed by a variety of ensemble sizes.\textsuperscript{49} These characteristics continued to permeate many of Bergamo’s subsequent works.

\textsuperscript{48} Ibid., 15-16.
\textsuperscript{49} Ibid., 16.
FOUR PIECES FOR TIMPANI

It was during his time at Manhattan School of Music that Bergamo wrote *Four Pieces for Timpani*. The piece was first written in 1961 and was published in 1963 by Music for Percussion. The piece is dedicated to Max Neuhaus, who also premiered it on his senior recital, and with whom Bergamo attended the Darmstadt summer courses (in fact, Neuhaus was the first American to perform *Zyklus*, the work that the two studied with Stockhausen). *Four Pieces for Timpani* is frequently performed on solo percussion recitals, both at the undergraduate and graduate level, and is often used as an audition piece into graduate percussion degree programs.

Prior to writing *Four Pieces for Timpani*, Bergamo had been exposed to Elliot Carter's *Eight Pieces for Four Timpani* (six of these pieces had been written by 1950, the other two were written in 1966), a work that can be considered a contemporary to *Four Pieces*; they are two frequently performed timpani solos that were written in close proximity of one another. There are many similarities between these two pieces that could indicate to the performer that Bergamo used Carter’s piece as some inspiration, in that Bergamo utilizes different playing spots, specifies different mallet choices, and denotes specific moments for head dampening using the musical notation, "x". Apart

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50 The copyright of the piece was transferred to Colla Voce Music, Inc. in 2001.
from these similarities, though, *Four Pieces for Timpani* is a unique and challenging solo that has become a standard in the solo timpani repertoire.\(^{54}\)

At the time that this document was written, there was no known professional recording of *Four Pieces for Timpani*.

**ANALYSIS**

*Four Pieces for Timpani* is a through-composed work comprised of four movements: I. *Recitative*; II. *Perpetual Motion*; III. *Elegia*; and IV. *Finale*. The first and second movement maintain the same tunings of the drums from low to high: F, A, B, D.

In his article in *Percussive Notes* about the work, Robert J. Damm, who was able to consult Bergamo regarding his analysis of this work, wrote that the pitches for the entire work can more or less be left up to the discretion of the performer, and that they should at least ensure that they are maintaining the same corresponding intervals between each of the drums.\(^{55}\) Therefore, regardless of the eventual pitches chosen by the performer, the first and second movement should maintain the intervallic relationship of a major third between the 32-inch and 29-inch timpani, a major second between the 29-inch and 26-inch timpani and a minor third between the 26-inch and 23-inch timpani. The only pitch

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changes, then, that should occur in a complete performance of this work would take place between the second and third movement. These movements are marked in the score as using the pitches F, G, A-flat, and C-flat, and similarly, regardless of what pitches the performer chooses to use, they must at least make sure the intervallic relationships between each drum, from low to high, are a major second, a minor second, and a major third.\textsuperscript{56} It has been the observation of the author that in performances they have seen of this work, the majority of performers used the actual pitches as notated in the score.

The first movement, \textit{Recitative}, is a majestic and declamatory start to the work. Bergamo provides the tempo marking of the quarter note equaling 50 beats per minute. There is no time signature, but instead, phrases are separated by \textit{fermati} of varying lengths, as shown by their appearance over either quarter rests, half-note rests, or quarter notes and rests. This is evidenced in the fourth line of the movement, where we see all three of these types of \textit{fermati} notated (see Figure 1). As such, the performer is free to vary the length of these \textit{fermati} when determining the overall pacing of the movement, but Bergamo’s notation of them gives a sense of comparison for each occurrence. The lengths of each \textit{fermata} will also be determined by the written dynamic of a given section and the amount of resonance after the timpani are struck (this can even be affected by factors such as the acoustics of whatever space the piece is being performed in and/or the quality of drums).\textsuperscript{57} Therefore, moments where a \textit{fermata} immediately follows a passage of loud dynamics might require a longer \textit{fermata} due to the fact that the timpani heads

\textsuperscript{56} Suggestions for how to determine pitches for a performance of this work will be discussed in the “Performance Suggestions” section of this chapter.
ring at a greater rate immediately following loud playing as opposed to soft. For example, in the second line of the movement, the performer may decide to treat each consecutive fermata, from the first to the third, as being longer than the next because the marked dynamics decrease over the course of the phrase.

![Figure 1 Recitative, 4th line, Score](image)

Given that the title of this movement is *Recitative*, the overall affect of this movement should feel very free, and almost improvisatory to the listener. A recitative is a “form of declamatory speech-like singing” that, “follows closely the natural rhythm and accentuation of speech, without necessarily being governed by a regular tempo or organized in a specific form.” The absence of meter allows the performer to perform some of the recurring figures in the movement using different phrasings. One such example of this is the very first phrase of the piece (see Figure 2). This figure appears in

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different variations, such as immediately following the *fermata* ending the phrase, the beginning of the fourth line, and the beginning of the sixth line. While in each of these instances this figure is slightly different, the effect remains the same: it is a rhythmic acceleration of subdivisions on a single note leading towards a rapid thirty-second note flourish moving from high to low on the timpani.

![Music notation](image)

Figure 2 *Recitative*, Opening Phrase, Score

Bergamo makes use of muffled notes (as notated with “x” note heads) throughout the *Recitative*. These notes fulfill two purposes: they serve to clear some of the residual decay from the previously struck drums and they add a different timbre than the sound of the timpani simply being struck. Bergamo clearly notates these muffled notes in rhythm, and Damm suggests that these notes be dampened similar to how vibraphone players

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60 Techniques for executing these “muffled note” will be discussed in the “Performance Suggestions” section of this chapter.
dampen notes with the actual heads of their mallets.\textsuperscript{61} Regardless of how the performer chooses to execute these muffled notes (Bergamo does not include specific instructions in the score for how to do so), any instance of muffling usually results in some kind of audible contact noise that can often be slightly higher than the actual struck pitch and can contain more overtones, creating a new sound color for the movement. The rhythmic muffling of the notes also adds a rhythmic echo to phrases that precede these moments.

The second movement of the piece, \textit{Perpetual Motion}, stands in stark contrast to the first. Perpetual motion in music is characterized by “rapid figuration [that] is persistently maintained.”\textsuperscript{62} Similar to the first movement, this movement lacks bar lines or time signature, which emphasizes the movement’s overall feeling of perpetual motion. Bergamo provides the tempo marking of quarter note equaling 170 beats per minute, and much of the movement maintains a dynamic marking of \textit{piano}, with a few brief \textit{subito} interruptions of \textit{mezzo-forte} and \textit{forte}.

The movement is made up of different two-, three-, four-, five-, and six-note groupings. While many of these groupings are different, some of them are recurring and can be audibly heard when brought out by the performer using some kind of agogic accent at the beginnings of them. Examples of these can be found in the first line of the piece (see Figure 3). The arrangement of these note groupings does not follow any


pattern or sequence. The only recurring idea, though, is that the first seven groupings are repeated exactly as they first appear at two other moments in the piece.

![Figure 3 Perpetual Motion, 1st Line, Score](image)

These first seven groupings occur again just after the dampening of notes followed by a quarter rest in the seventh line of the piece. This takes place after a sudden change in texture, beginning in the fourth “beat” of the fifth line, in which the center playing spots of all of the drums are introduced, and the dynamic level is raised. When the center playing spots are played by either hand, the opposite hand is playing on the normal playing spot of either the 32- or 23-inch timpani, outlining the numbered grouping. This can be more clearly seen in the sixth line (see Figure 4). Here, for example, Bergamo uses three-note groupings where all three notes are played in the center of a drum and the resonant notes are in the form of accented dotted quarter notes that occur at the beginning of each grouping. Interestingly, Bergamo chose to put the melodic moving line in the muted playing spots, even though the constant resonant notes are accented. This is to emphasize the numbered note groupings, which, in the opinion of the author, provides the

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63 When using the term “beat,” in the context of this movement, the author is implying that one-four note grouping (fourth eighth notes) is one “beat.”
listener with something to latch onto, as opposed to just a flurry of continuous notes. The
original six-note grouping that begins the entire movement returns after a grand pause, serving almost as a recapitulation of the main theme of the movement. After more variation on the different note groupings, this idea returns after another moment of pause (a written half rest at the very end of the ninth line), now notated with a \textit{diminuendo al fine}.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure4.png}
\caption{Perpetual Motion, 6th Line, Score}
\end{figure}

The third movement, \textit{Elegia}, makes reference to a musical elegy in terms of its stylistic character, and as such, is a strong juxtaposition to the stately nature of the first and the light, fleeting nature of the second. An elegy is, “A setting of a poem, or an instrumental piece, lamenting the loss of someone deceased.”\footnote{Malcolm Boyd, “Elegy.” \textit{Grove Music Online}. \textit{Oxford Music Online}, Oxford University Press, accessed November 10, 2015, http://www.oxfordmusiconline.com/subscriber/article/grove/music/08701?q=elegy&search=quick&pos=1&_start=1#firsthit.} While no programmatic information for this movement that references the idea of an elegy could be found, the

\footnote{Bergamo notates a quarter rest immediately preceded by a non-metered notation for muffling the drums. While this is not specifically a grand pause in terms of how it is notated, reasons for why it is analyzed as such will be discussed in the “Performance Suggestions,” section of this chapter.}
overall tone of the movement is quite somber and reflective. The slower tempo is marked as the half note equaling 48 beats per minute. Unlike the previous movements, this movement has a time signature, therefore the performer should observe the various changes in meter that occur throughout.

The movement begins with a statement of a melody around the F-, G-, and A-flat-timpani. Following this statement, Bergamo introduces four-note chords in measure 5 (see Figure 5). This is very unique in timpani solos, as at the time of the composition (and still today), the use of four mallets in timpani performance was considered to be a highly advanced extended technique. The resulting chord in this bar (assuming the performer is using the notated pitches in the score) is an F diminished chord with an added second. This dark cluster chord is highly dissonant; the natural resulting overtones of the timpani make it very difficult for the listener to discern any specific pitches or tonality. Should the performer decide to use different pitches, but still observe the given intervals as Bergamo suggested, they should keep in mind the overall sound quality, including the blend of pitches and their overtones.

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66 A discussion of how to execute four-mallet timpani technique will be included in the “Performance Suggestions” section of this chapter.
After two statements of this chord, Bergamo repeats a similar phrase to the opening bars of the piece: a simple one-line melody, followed by a statement of the four-note timpani chord. Beginning in measure 11, the music splits into two distinct lines (see Figure 6). When performed this way, the left hand line moves in a stable, downward motion, almost as if it were a bass line, while the right hand line stays somewhat stagnant over the top. As in the previous movements, Bergamo requires the performer to dampen the drums in time (on big beats 2 and 4) in measure 13, followed by another statement of the four-note chord. In this instance, the chords are repeated and prolonged across six measures as a crescendo from piano to fortissimo (this dynamic marking occurs in measure 18), followed by a decrescendo beginning in measure 19.

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67 In other sections of this piece in which the music splits into two distinct lines, typically one hand is assigned to one line and the opposite hand is assigned to the other line. This option can still be used for this particular passage, but an alternative sticking choice that preserves the musical interpretation of this passage will be discussed in the “Performance Suggestions” section of this chapter.
There is a change in texture from measure 20 through measure 25. Bergamo writes a series of two-measure phrases, the first of which is a statement of the same dyad (F and A-flat), followed by the dyad of G and A-flat, then resolving in the bass to the original dyad of F and A-flat. Each time this resolution occurs, the resolved chord is shorter in duration (see Figure 7). This creates a sense of building tension, which is followed by a fortissimo statement of the four-note chord in measure 26, and continues in this manner through measure 33. Here, the lowest two notes of the chord are notated as dotted quarter notes, followed by those same notes repeating as eighth notes, while the top two chord members are notated as half notes. The performer may choose to experiment with rubato, as stretching the time would add an even greater sense of tension.
The pace of the movement slows as the dynamic gradually becomes softer.

There is a longer separation between each statement of the four-note chord. Bergamo ends the movement with a two measure *tremolo* of all four notes in measure 33 and measure 34, followed by the final notes of the piece; a dyad played in the center of the G- and A-flat- timpani. The way in which the movement ends raises a question concerning tonality in the context of this piece: what is the tonic of this movement? Since one of the primary features of this movement that sets it apart from the others is the use of four-note chords, one may understand the “key” of the movement as relating to this chord, and therefore, would possibly interpret the movement to be in the key of F minor. Regardless of how one chooses to analyze the tonal structure of the movement, the ending is just as mysterious and looming as the entire movement. The decision to end with the center playing spots results in a sound that is characterized by a muted tone and lack of overtones. Additionally, the minor second interval between the two timpani ending the piece is highly dissonant in nature, and not what one would typically expect of an end to
a movement. This two-note chord is effective closing material for the movement and serves as a musical question mark to be answered by the final movement of the piece.

The *Finale* is an exciting and appropriate ending to this multi-movement work, as evidenced by the movement’s tempo marking: “As fast as possible, with barbaric ferocity.” Robert J. Damm wrote that Bergamo intended for the movement to reflect the “drive and energy” associated with the bebop drumming of Max Roach. As previously stated in the composer’s biography earlier in this chapter, Bergamo received one-on-one jazz drum set lessons with Max Roach while he was a student at the Lenox Jazz Center. Roach is noted for helping to develop the bebop style of drumming while playing with such bebop luminaries as Charlie Parker and Dizzy Gillespie. Roach is cited as having been the first drummer to be recorded “trading fours,” as well as playing in odd meters, such as 3/4, 5/4, and 7/4, all while maintaining the characteristic “swing” feel. Once one is aware of this inspiration, it becomes easy to hear these facets of

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71 Trading fours is a method of soloing in jazz performance in which two or more players alternate playing solos with one another, often in short fragments, each of which typically spans the length of four measures.
Roach’s drumming when listening to and studying the *Finale*, particularly with regard to Bergamo’s use of mixed meter.

Like the third movement, the *Finale* also has a written time signature, offering both the performer and listener a stronger sense of pulse. This movement maintains the same tuning sequence as the third\(^{73}\), and this is the first movement in which Bergamo does not notate any muffling.

In many ways, the movement sounds very similar to a solo that a jazz drum set player might play. First, the movement frequently contrasts moments of fast, rapid activity with moments of pause. This is something that can be very effective in a drum set solo, and is just as effective in a timpani solo. An example of this occurs in measure 1 through measure 7 (see Figure 8).

![Finale, mm. 1-7, Score](image)

Figure 8 *Finale*, mm. 1-7, Score

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\(^{73}\) It should be noted that in the score of this work, Bergamo does not indicate the tuning sequence at the top of the movement, nor does he notate any accidentals in the actual notation of the movement. Robert J. Damm has written that the accidentals from the previous movement do in fact carry over to the *Finale*, and as such, this should be applied to any alternate tunings performers may choose to use when performing this work.
There are several moments where Bergamo uses note groupings that are not necessarily indicative of the given meter, and extends these note groupings and other phrases over the bar lines. This occurs in measure 11 when Bergamo separates the eighth notes in this 4/4 time signature measure as two groups of three notes followed by a group of two notes (see Figure 9) and in measure 14 and measure 15 where he creates a grouping of five eighth notes over the bar line. (see Figure 10). In some ways, the movement almost resembles what a transcribed drum set solo might look like on paper.

Figure 9 Finale, m. 11, Score

Figure 10 Finale, mm. 14-15, Score

In addition to the various mixed meters, Bergamo also implies certain meters within a given time signature. He frequently does this in measures that have a written 3/4
time signature, but instead imply more of a 6/8 time signature phrasing, for example in measure 25 and measure 26. While the movement itself is not notated in a way that directs the performer to swing the eighth notes, moments such as these, as well as Bergamo’s juxtaposition of triplets with eighth notes, hints at a jazz-like feel. This is evident in measure 57 through measure 59.

In general, the Finale feels and sounds very improvisatory in nature, but like many effective jazz drum set solos there are certain rhythmic motifs that are repeated. For example, Bergamo consistently repeats the opening two measures at various dynamic levels throughout the movement (see Figure 11).

![Figure 11](image)

Figure 11 Finale mm. 1-2, Score

This low rumbling on the low-F followed by an upward movement on all of the drums toward the 23-inch timpano resembles an idea that a drum set player might use in which they play around the toms of the set in some kind of sequential order. Bergamo repeats this idea in measures 30 and 31 and measures 51 and 52. This motive is very easy to discernaurally. Bergamo also frequently elaborates on the first measure of this motive.
He does so by maintaining stable eighth notes on the low F, while moving single notes around the rest of the timpani, such as in measure 32 through measure 38 (see Figure 12). This is highly reminiscent of drum set playing, as players will often have one hand (typically the right) moving around the set, outlining a certain large subdivision or note grouping, while the other (typically the left, and usually on the snare drum) fills in the smaller subdivisions.

![Figure 12 Finale, mm. 32-35, Score](image)

PERFORMANCE SUGGESTIONS

John Bergamo does not offer any stick or mallet suggestions in the score of *Four Pieces for Timpani*. Robert J. Damm’s article about this piece offers some helpful suggestions on behalf of the composer himself, but should this article not be known to performers while they are studying this work, they would otherwise have to rely greatly on musical intuition, as well as their consideration of the acoustics of the performance space in which the work will eventually be performed. The following suggestions on behalf of the author of this document are the result of her own thoughtful
experimentation, as well as her own consideration of Bergamo’s own suggestions in Damm’s article on this work.

The Recitative features a variety of dynamics that range from as soft as pianissimo to as loud as fortissimo and virtually all possible written dynamic markings in between. The performer must be able to execute highly syncopated and accented rhythms, as well as the sudden subito changes between the different written dynamic markings. In terms of articulation, there is also the need for a mallet that will provide a contrast between the staccato thirty-second notes and the notes of longer note values and those with tenuto articulation markings. Damm suggests that the performer use a fairly hard mallet, emphasizing the need for a mallet that will execute said thirty-second notes. While this is certainly a valid solution to this issue, the performer should also consider the stately nature of the movement, and the various tempo manipulations that they may use to emphasize this character. Therefore, it is suggested that the performer chooses a mallet that has a good deal of weight to it, so that they are able to emphasize the heavy nature of some of the longer lines in this movement. The author of this document decided upon a pair of Cloyd Duff #2 timpani mallets. The solid hickory shaft, along with the fairly heavily weighted core and medium-thick felt covering provided the range of articulation and dynamics required of this movement. Should future performers of this work not have these mallets available to them, a “general-use” mallet should be adequate.

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*Perpetual Motion* requires an implement that will portray lightness of dynamic, timbre and texture, as well as the sharper articulation needed that will portray the movement’s tempo indication, “with extreme agility.” Damm writes:

Mallets for “Perpetual Motion” should be thin dowel rods or rattan sticks in order to produce the particular timbre the composer had in mind. Taping the end of the sticks with moleskin will alleviate harsh contact noise.

The advantage of rattan sticks is their extreme lightness, which allows the performer to execute the fast-moving rhythms between all of the drums with greater ease than if they were using a more traditional timpani mallet or heavier stick. Rattan sticks can be made by removing the mallet heads from a pair of keyboard mallets that have rattan shafts. One could also use thin dowel rods purchased from a general hardware store, and cut them down to a length that is similar to a timpani mallet.

The author of this document chose to use 3/8 diameter timbale sticks with a soft rubberized fitting on the playing end (see Figure 13). The reasons for using this kind of timbale stick are twofold. Firstly, the length of these sticks very much resembles that of a timpani mallet, and thus is more comfortable in terms of feel, especially in the larger context of a timpani solo in which the other implements used are that of standard timpani

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77 Rattan is a natural material that, in addition to birch, is typically used in the construction of keyboard mallet shafts. It is a very flexible material (particularly in comparison with the much more solid birch), and its inherent sense of give and bend make it particularly practical when used in vibraphone and two-mallet keyboard performance.
mallets. Secondly, the solid nature of timbale sticks (like timpani mallets) is easier to control than the more flexible rattan sticks.

While the performer may certainly choose to use an uncovered stick for this movement, the author found the sound of this to be too abrasive sounding, and given her interpretation of the movement, there did not seem to be a need for an implement that will emphasize precise articulation. The rubber fittings used on these timbale sticks are traditionally used as the grips that are often found on and sold with commercially manufactured timpani mallets; the arrival at this as a mallet covering was somewhat of an accident.\(^7\) The author found that it would take several layers of moleskin wrapping in order to achieve the optimal sound quality, which, upon removing from these sticks, would leave an undesirable layer of adhesive. These soft rubber grips, however, are easy to place on and remove from the sticks, which would therefore allow the performer to reuse these sticks for other musical applications in the future. Additionally, this covering added a warmthness to the sound, and a unique and interesting timbre that provides a welcomed contrast to some of the other timbres experienced throughout the piece.

Regardless of the type of implement one chooses for *Perpetual Motion*, the author suggests experimenting with the angle at which they strike the timpani with said implement. For example, by holding the mallet at a steeper angle with the timpani head so that the performer’s wrists are much higher than they would normally be, they will strike the timpani with the tip of the implement. This will produce a softer, higher sound,

\(^7\) More specifically, these grips are included with Malletech Markus Rhoten series of timpani mallets.
which is both appropriate for this movement, and will help to alleviate some of the difficulty inherent in executing the rapid rhythms at such a soft dynamic.

Figure 13 Modified timbale sticks used for Perpetual Motion

_Elegia_ presents an interesting challenge to the performer regarding mallet choice because they are required to use four mallets. Damm suggests that, “Very soft mallets be selected to help achieve the desired _sempre tenuto_ character.” The author of this document agrees with this suggestion, and would add that the performer should use two matching pairs of mallets to achieve a consistent tone on each of the timpani.

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Experimentation with graduated mallets was done while researching mallet choices for this piece, but the author found that the unevenness of weight in each hand was uncomfortable, and that the differences of timbre on each timpano, while subtle, was still too noticeable. Using graduated mallets requires the performer to be very deliberate regarding the choice of sticking, such that they are careful to maintain consistent sticking with each mallet on each drum, respectively, which in the end caused musical lines to be broken unnecessarily.\(^{80}\) For her performance of this work, the author chose to use two matched pairs of Cloyd Duff #5 soft legato bamboo shaft timpani mallets. The lightweight core of the mallet and the thick, soft felt wrapping provided the warm timbre needed, while the hollow bamboo shafts added a lightness to the overall sound and touch. If a future performer of this work does not have these mallets available, any soft, legato timpani mallet should be adequate. Above all, however, the performer should be sure to use two pairs of the same mallets if at all possible so that they ensure an even and consistent voicing between each of the timpani.

The heightened activity of the Finale requires a mallet that will execute its phrases with the utmost rhythmic precision and integrity. Damm writes:

\begin{quote}
The composer specified that this movement relates to the drive and energy associated with Max Roach’s bebop drumming. He recommends felt staccato mallets because he warns that wood may sound too “pounding.” Wooden mallets,
\end{quote}

\(^{80}\) Choices of mallets within a graduated series were done based on the tension of each drum. The lowest mallet in the series (mallet number 1) would most frequently be playing the 32-inch timpano which, of the four timpani, possesses the greatest amount of resonance and longest decay. Therefore, a mallet that is heavier in weight would be needed so that it would speak as clearly as the higher tension timpani.
however, may be appropriate in order to make this movement sound more like a drum set solo.\textsuperscript{81}

Despite the allusions to drum set playing made in this movement, the author of this document would advise against Damm’s suggestion to use wooden mallets. While Bergamo makes clear reference to the association to Roach’s drumming, he does so by relating the movement to Roach’s rhythmic drive and intensity, not necessarily the literal sound of drum set playing. The performer of this work can still exude the feel of a bebop drum set solo without having to sound exactly like wooden sticks on tom toms and snare drums. In the interest of varying the timbres of the work as a whole, however, rather than using a felt staccato mallet (which would be quite similar to the mallets used in the first movement of the piece), the author of this document decided to use a mallet wrapped in a thin chamois covering. This covering achieves the articulation that would similarly be realized by wooden mallets, but does so without quite so much of an abrasive, heavy sound. Instead, like the soft rubber fitting used in the second movement, the chamois covering adds a subtle softness to the sound, allowing for a much warmer, rounder quality, while still preserving the rhythmic integrity of each musical phrase. The specific mallets used by the author of this document for the \textit{Finale} were Cloyd Duff #10 Chamois brilliant hard hickory shaft timpani mallets. There are several brands of chamois wrapped timpani mallets on the market, and any such mallets should suffice for a performance of this work. Should a future performer of this work not be able to acquire specially manufactured chamois wrapped mallets, a satisfactory substitution would be

wooden timpani mallets wrapped in chamois or some other kind of thin leather wrapping, or even several layers of moleskin. It is not advised that performers use snare drum or drum set sticks wrapped in either of these coverings because the performer would not have the advantage of the added weight at the core of a mallet. Additionally, such implements can potentially damage timpani heads due to their more pointed ends (see Figure 14).

Figure 14 Chamois mallets used for Finale

The set-up for this piece does not require anything unusual or different from the standard set-up used for solo timpani playing. The performer will need to make sure that they have one music stand placed with a towel somewhere in the set-up to hold all of the mallets being used. The author of this document chose to place this mallet stand on the outside of the 23-inch timpano. This placement is preferred in that it eliminates any
potential for the player to accidentally strike the stand in the midst of performance.\textsuperscript{82}

Additionally, placing the mallet tray completely outside of the timpani configuration eliminates any possible visual obstructions for the audience member. The performer may perform this work directly from the bound score, as there are no difficult page turns during, or between each individual movement. The performer may choose to sit or stand for all or some of the piece, depending on what is most comfortable. Because there are no rapid tuning changes at any point in the piece, there is no necessity to sit so that the performer’s feet are closer to the pedals.\textsuperscript{83} The author of this document chose to sit on a stool for the first and third movements. She chose to stand while performing \textit{Perpetual Motion} because of the rapid movement between all four timpani requiring a greater sense of mobility. Additionally, the added height as a result of standing in this movement allowed for greater lightness of articulation because the implements would now make contact with the timpani heads at a larger angle and more so with their tips, as opposed to greater surface area of the implements as a result of the more parallel angle between the implements and drums that would result from sitting. Standing in the fourth movement provided the author with greater ease of movement for some of the faster, more syncopated passages.

As previously discussed, Bergamo intended for the performer of \textit{Four Pieces of Timpani} to have some freedom in terms of choosing what pitches to use on each drum.

\textsuperscript{82} It is standard practice for timpanists to often place their mallet tray somewhere in the middle of the timpani set-up, typically either between the 26- and 23- inch timpani or the 32- and 29- inch timpani.

\textsuperscript{83} Pedagogically, timpanists are often instructed to sit at the timpani if they are above a certain height and/or if they are performing a passage of music that has frequent changes in pitch and sections of active pedaling.
The author of this document chose to observe the written tunings for the first and second movement.\textsuperscript{84} While Bergamo notated that the third and fourth movement be tuned using the sequence of F, G, A-flat, and C-flat, the author would like to point out that timpani are generally tuned so that the lowest notes on each drum from lowest to highest are D, F, B-flat, and D, respectively. This would mean, therefore, that the pitches specified to be played on the 26- and 23-inch timpani in the third and fourth movements would most likely not exist. Even if they did, they would be extremely low in the register, to the point that they would not be stable (meaning they would go out of tune during performance more easily), and there would be little to no presence of the actual fundamental pitch (this would instead be replaced by too many overtones). Therefore, for the third and fourth movements of this piece, the author chose to use the tunings—from the lowest drum to the highest—of A-flat, B-flat, B, and D. These tunings were suggested by Robert J. Damm because he found that these pitches stay within the existing ranges of each drum, while still preserving the specified intervals in the piece.\textsuperscript{85}

For the most efficient tuning change between the second and third movement, the author recommends tuning the 29-inch timpano first (this would be just a half-step up from the previously existing pitch of A-natural), and then the 32-inch timpano (just a whole-step down from the newly tuned B-flat on the 29-inch timpano); the 26- and 23-inch timpani can remain tuned to B-natural and D-natural, respectively, and do not need

\textsuperscript{84} Robert J. Damm recommends in his article on this work that the performer may choose to tune the drums for \textit{Perpetual Motion} towards the top of their range so that they achieve more articulation, rather than a greater amount of resonant that would result in lower tunings.

to be changed using this set of pitches. This requires less time between movements on tuning, in addition to less room for error in making these tuning changes.

Interestingly, Bergamo does not offer any sticking suggestions in any of the movements of *Four Pieces for Timpani*. In *Recitative*, much of the sticking follows an alternating pattern between the left and right hands. A performer of this work will most likely find many of their eventual stickings to be highly intuitive. This is due to the relatively slow tempo, as well as the relative freedom of both meter and *rubato*. The author of this document recommends sticking the five-note thirty-second note figures (this first appears on the fourth beat of the first line, but reappears throughout the remainder of the movement) descending from the 23-inch timpano to the 32-inch timpano using an alternating sticking (see Figure 15). The author feels that a double-sticking would break up the phrasing of this motive, whereas an alternating sticking maintains the needed articulation, momentum, and energy.

Figure 15 *Recitative*, five-note thirty-second note figure, Score with added stickings
Bergamo uses “x” note heads to indicate muffled notes on each of the timpani. The performer of this piece can choose to execute these using a technique similar to vibraphone dampening technique, in which the mallets themselves dampen the timpani heads in the exact spot that they were struck. The author of this document also explored hand dampening techniques as an option for executing this technique. While this technique differs from mallet dampening technique due to the slightly greater amount of contact noise from the hands touching the vibrating timpani heads, they found it to be more successful in clearing away the excess ringing of the timpani. Additionally, hand dampening the notated muffled notes proved to be more successful in creating an audible execution of the written rhythms. For the muffled sixteenth-note figure in the first line of the piece (this also occurs again in the following line), the author recommends an alternating sequence between the hands, beginning with the right hand (see figure 16). This ensures that the left and right hands do not have to do any awkward crossing over one another, but instead stay on their respective regions of the timpani setup.

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All instances where two notes are to be muffled simultaneously (such as at the end of the second line, the beginning of the third line, etc.) should be muffled such that the right hand muffles the higher of the two timpani and the left hand muffles the lower of the two. For the muffled triplet in the second line, the author chose to use a double right hand muffling for the first two partials, followed by the left hand to avoid hand crossing. Because the rate of the triplet at the written tempo is relatively slow (especially in comparison to the muffled sixteenth-note figures in the movement), the author felt that there was more than enough time to execute this double muffling with the right hand. The author would also recommend a double right hand muffling followed by a left hand muffling for the three sixteenth-note grace notes prior to the fermata at the end of the fourth line. This muffle can be quite gestural given the fact that the written dynamic is so soft, and therefore there will not be a great deal of remaining decay.

There are two written trills in *Recitative*: one is the first note of the movement, and one at the beginning of the fourth line of the piece. This indicates that the performer should perform a roll on the drum as notated below this marking. The *tremolo* markings over the A-timpani at the end of the fourth line and at the very end of the movement
indicate that the performer should roll between the A- and B-timpani. Regarding the
equation of the *tremolo* notes, Robert J. Damm comments that Bergamo suggested that
the performer start and end these on the upper timpano. According to the vocal and
instrumental (meaning instruments other than timpani) implications of the title of the
movement, the author of this document recommends that for added emphasis the
performer start the tremolo notes slow and gradually speed up. The final sticking
consideration in this movement regards the fifth line of the movement, in which the
music separates into two lines. The notes with upward stems (the repeating B-natural
eighth notes) are to be played with the right hand, while the downward stems are to be
played with the left.

*Perpetual Motion* requires a great deal of deliberate sticking choices on behalf of
the performer in order to execute the continuous, rapid passages. Certain frequently
occurring note groupings can utilize the same sticking throughout the movement. For
example, the opening theme discussed in the “Analysis” section of this chapter can utilize
the same sticking each time it reappears in the movement (see Figure 17).

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87 Robert J. Damm, “John Bergamo’s *Four Pieces for Timpani*: A Performance Guide,”
*Percussive Notes* 33, no. 5 (October 1995): 54.
In addition to the performer applying this sticking to each of the three times that the exact phrase occurs in the movement, the performer may also use the same sticking for any instance of a descending four-note grouping from the 23-inch timpano toward the 32-inch timpano. This grouping occurs frequently throughout the work, and sticking it using this right-hand lead alternation will allow for a swift phrasing of these notes. Once the performer applies this sticking to all four-note groupings, they can then adapt their stickings of the surrounding figures to accommodate the sticking of this more frequently appearing motive. The sticking of the three note motive as shown in Figure 17 can also be used for instances where it is repeated in any other place in the rest of the movement. In general, the performer will be able to utilize an alternating sticking pattern throughout the entire movement, and any moment where they need to have a double sticking would occur between two motives, so that the last note of one motive is played in the same hand as the first note of the next motive. In these instances, the performer should phrase these double stickings so that the second note would have a slight accent on it so as to clearly pronounce the beginning of the next note grouping (see Figure 18).
When the hands separate from one another, beginning in the middle of the fifth line and then continuing into the sixth and seventh line, the upward stems will be played by the right hand, while the downward stems will be played by the left hand. The performer should be careful to make sure that the notes played in either the left or right hand in the normal playing spot should be tenuto in length, and therefore maintain a long and slow lift off of the timpani allowing a good deal of resonance. The performer should consistently strike the true center of each drum (particularly in the sixth and seven line when this hand is moving between the center playing spots of three timpani). The dead center of the timpani will provide the driest— and therefore most characteristic of the center of the drum— sound, while hitting just off center of this will contain more overtones and less fundamental. Separated hand practice of these passages is recommended so that the performer can gain comfort with the movement between the drums and each of their respective playing spots. It is suggested that the performer strive to achieve an equal balance between the resonant drum and the drum being played in the center playing spot in terms of dynamic. While the moving line occurs in the center of the timpani, the stable part emphasizes the note groupings and adds resonance to the
overall sound. Depending on the kind of timpani a performer is using or the performance hall in which they intend to play this piece, the performer may play the center playing spots at a slightly softer dynamic than the normal playing spots. This is because the immediacy at which the head responds in the center in terms of both tone and articulation is much faster in the center than it is closer towards the edge of the timpani.

The performer is instructed to muffle all of the timpani in the middle of the seventh line just before a recapitulation of the motivic material from the very beginning of the movement (see Figure 19).

![Figure 19 Perpetual Motion, 7th line, muffling notation, Score](image)

The duration of time in which the performer should muffle these notes is unclear due to the notation. At the written tempo of a quarter note equaling 170 beats per minute, clearing all four ringing timpani in the space of the written quarter note rest would be nearly impossible. Even if the performer would be able to do so after practice, this would be a visual and aural distraction to the listener, and therefore, would defeat the purpose of
muffling the notes at all. The author recommends muffling the notes according to the provided indications in Figure 20.

![Figure 20 Perpetual Motion, re-notated muffling](image)

The metering and ordering of this muffling was devised because it allows for muffling in order of the timpani that will be ringing the most after the end of the previous passage. Performing this muffling in the space of eighth notes will allow for the performer to execute this muffling in an already occurring subdivision, which will also maintain a more consistent sense of time (whereas performing this muffling in the space of sixteenth notes can cause audible rhythmic friction and unnecessary tension). It seems appropriate to continue to observe at least a quarter note rest after the muffling is accomplished so that they can create a sense of suspense for the listener, which is particularly effective given that the immediately following material is a recapitulation of older thematic material.

The Elegia will also require the performer to make well thought out sticking considerations due to the fact that the performer is required to use four timpani mallets.
It is the opinion of the author of this document that this would be considered an extended technique, due to the fact that this is a highly uncommon technique used on timpani. It is recommended that the performer be familiar with four-mallet grip as it would be applied on keyboard percussion instruments. This will greatly aid in executing this technique on timpani. If a performer is comfortable with one four-mallet keyboard grip in particular, then it is recommended that this be the one that they use when performing *Elegia*. The author uses the Stevens grip when performing four-mallet keyboard solos, and therefore was instinctively drawn to using this technique when first studying the *Elegia* (see Figures 21 and 22). The author experimented holding the four timpani mallets using a traditional cross-grip and Burton four-mallet grip, but could not find any advantages or disadvantages in doing so, so therefore ultimately decided to use what was most comfortable.

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88 The second chapter of this document will address four-mallet timpani technique in Jan Williams’ *Variations for Solo Kettledrums*. Interestingly, Williams has cited Bergamo and *Four Pieces for Timpani* has an inspiration for his own composition.

89 The Stevens grip (also known as the Musser-Stevens grip) is a four-mallet marimba technique that was developed by the marimba player, Leigh Howard Stevens, and is outlined in his 1979 method book, *Modern Method of Movement for Marimba*. The grip is notable for its relative looseness and greater level of independence of manipulation of each individual mallet. It has quickly become one of the most generally accepted and used four-mallet grips in marimba performance and pedagogy.

90 The traditional cross-grip is the oldest of the four-mallet grips. It is notable for being the easiest to learn, in that the mallets are held such that the shafts literally cross one another inside the palms. It lacks the independence of Stevens grip.

91 The Burton four-mallet grip was invented by the well-known jazz vibraphone soloist, Gary Burton. This grip is a slight variation of the traditional cross-grip that allows for greater independence of each individual mallet.
When the mallets are placed in the hands using the desired four-mallet grip, it is recommended that the performer maintain a spacing between the mallets that would be most similar to a perfect fifth interval when placed in the middle range of a marimba. This interval is relatively easy to maintain, and would not require the performer to hold any kind of awkward spacing between the fingers. Using this interval, however, would
require that the performer offset their normal playing spots\(^\text{92}\) so that they are not at the front most spot of the timpani (over the pedal, or rather, the six o’clock position on the timpano when looking at the drums from above), but rather using inside playing spots (the nine o’clock position on the 23- and 26-inch timpani and the three o’clock position on the 29- and 32-inch timpani, when looking at the drums from above). While these playing spots are not the typical spots used when performing, they are certainly viable, so long as the performer is careful to stay between the two tension rods\(^\text{93}\) at each respective position on the timpani (see Figure 23).

Using these playing spots is a reasonable compromise because in order to use the normal playing spot in this movement, the performer would have to maintain octave intervals in their grip, which would be very awkward and difficult, especially given the slow moving nature of the movement.\(^\text{94}\) Using the normal playing spots would also require that the performer would have to bend their arms into an awkward position uncomfortably close to their torso. There is no risk of sacrificing sound quality using the inner playing spots in this context because most of the movement is written using relatively soft dynamic markings. Additionally, given the name, *Elegia*, the musical

\(^{92}\) The normal playing spot on timpani is located about two to five inches from the lip of the copper bowl. For larger drums, this distance from the lip of the bowl will be slightly larger, whereas for smaller drums, this distance will be slightly smaller. This playing spot produces the most balanced blend of fundamental tone and natural resonance.

\(^{93}\) The tension rods are the mechanisms that keep the head in place over the copper bowl.

\(^{94}\) Maintaining octave positioning with a four-mallet keyboard grip is normally considered highly developed technical skill. Doing so with thicker, heavier mallets (as opposed to thinner birch or rattan keyboard mallets), would be even more difficult and unwieldy.
function of this movement is to be a more somber, softer context to the other more aggressive, louder movements, therefore a subtle tone quality is musically appropriate.

Figure 23 Overhead view of mallet positioning and inner playing spots used in Elegia

With regard to sticking choices for this movement, there are several options that the performer may choose. Given the fact that this movement utilizes both four- and two-note chords throughout, the performer may choose to determine their stickings much in the same way that an instrumentalist would voice chords on an instrument other than timpani; each mallet can be assigned to a particular pitch or musical line. Therefore, the performer can execute the stickings of this work so that the outside left-hand mallet (mallet number 1) is always assigned to the 32-inch timpano, the inside left-hand mallet (mallet number 2) is always assigned to the 29-inch timpano, the inside right-hand mallet
(mallet number 3) is always assigned to the 26-inch timpano, and finally, the outside right-hand mallet (mallet number 4) is always assigned to the 23-inch timpano (see Figure 24).

![Figure 24 Elegia, mm. 11-13, Score with added stickings](image)

This kind of sticking option would require a highly developed sense of independence in each of the mallets, but the least amount of physical movement around the drums (from the torso, arms and/or wrists), and would therefore be best executed by a performer who has a more advanced and developed technical facility of their four-mallet grip.

The performer may also choose a sticking that favors the inside mallets (mallet number 2 and mallet number 3), in that these are typically the more stable mallets of the two in each hand because they are held in the main fulcrum point\(^{95}\) of the grip. This would then mean that the outside mallets (mallet number 1 and mallet number 4) would only be used in instances when four-note chords are used (see Figure 25). This will allow

\[^{95}\text{The fulcrum of a grip refers to the place in the hands where the greatest amount of pressure is applied by the fingers so that this results in a point for which the mallet can pivot inside the hand. In most standard timpani grips this fulcrum is located between the pad of the thumb and the first joint of the index finger.}\]
for a greater preservation of the musical phrase, particularly in moments where the music splits into two distinct lines. Similar to other movements in this work, when this kind of sticking is employed, the upward stems would be played by the right hand, while the downward stems would be played by the left hand.

![Figure 25 Elegia, mm. 11-14, Score with added stickings](image)

Both of these sticking decisions are practical options and would preserve the musical integrity of the work. In the opinion of the author, neither of them favors a certain interpretation. Like any sticking decision for any work, the decision will ultimately up to the discretion of the individual performer; they may find their reasoning as to why a particular sticking works best for them may simply have to do more with their own physicality than anything. Being that this movement utilizes the extended technique of a four-mallet grip, the ultimate determining factor in a sticking choice will most likely depend on the performer’s own personal comfort with this kind of technique. In the end, however, it is recommended by the author that whatever sticking method they choose be maintained consistently throughout the movement.
As indicated in Figures 26 ad 27, the performer will execute all muffling with their mallets in the *Elegia*. This is because they will not be able to extend their fingers outwards to execute hand muffling due to the presence of the added mallet in each hand. To execute this mallet dampening, the performer will depress the heads of each mallet into the timpani heads in the same exact spot (or as close as possible to this spot) where the mallet had previously just struck the head. A good deal of pressure will need to be applied into the timpani head, requiring a slight increase in downward pressure on the head in the fulcrum in the grip, as well as from the wrist (see Figures 26 and 27).

Figure 26 Mallet positioning before mallet dampening in *Elegia* (immediately after the timpano is struck)
There is roll written in measures 33 and 34 of the movement, which can either be performed as a hand-to-hand tremolo, or as a ripple roll.\(^\text{96}\) If the performer decides to utilize a ripple roll, this would be executed much in the same way one would perform a ripple roll on a marimba using four-mallet technique. The performer would have to individually manipulate the mallets so that they strike the drums in a sequential, connected manner, requiring a great deal of independent mallet control on behalf of the performer. The author of this document chose to utilize a hand-to-hand tremolo. The reason for this is that it was simply more idiomatic, and resulted in the ability to better

control the dynamic balance between the 32- and 29-inch timpani and the 26- and 23-inch timpani.\textsuperscript{97}

*Finale* will present very few difficulties in terms of sticking considerations. Generally speaking, the performer will find that they will be able to utilize a simple hand-to-hand alternation throughout the movement. It is advised, however, that the performer start the movement with the left hand so that they would not have to execute any unnecessary cross-sticking in the subsequent measures. In moments where there are two musical lines, the upward stems will be played by the right hand, and the downward stems will be played by the left. Perhaps the most difficult passage to execute in terms of utilizing an efficient sticking are the moments where Bergamo notates triplets and eighth-note sextuplets. In these instances, the author chose to play the first two partials of all triplets with the right hand, followed by the third partial being played with the left (see Figure 28). This sticking resulted in a phrasing that added a sense of swing to the triplets, which seems musically appropriate given Bergamo’s inspiration for the movement was the bebop drumming of Max Roach.

\textsuperscript{97} Due to the higher tension of the upper two timpani, they require a slightly louder dynamic than the lower two timpani.
In measure 66 and measure 74, the author chose to use a sticking that includes a double left-hand sticking in the middle of the written sextuplet (see Figure 29).

This particular sticking prevents any cross-sticking, which in the middle of a phrase at the rapid tempo of the movement would be very difficult and unnecessary given the desired musical affect of the motive: a rapid flourish up and down the timpani, rather than a highly articulate, syncopated figure. In measure 71 and measure 72, Bergamo repeats this same figure over two measures. The second measure (measure 72) uses the same sticking as measure 66 and measure 74. The first measure (measure 71), however, uses a
hand-to-hand alternating sticking starting with the right hand. This sticking was chosen because it helps to facilitate a greater sense of drive towards the arrival in measure 73.

The performer can choose to use the same sticking (utilizing the double left hand) in both measures, but this can cause an audible break in the rhythmic phrasing and energy.

While there are no muffling indications at any point in this movement, the author recommends muffling all notes with the exception of the lowest timpano in the very last measure of the movement. This will give a sense of finality to the movement because it causes the listener to hear this single ringing note as the “tonic” of the movement. The performer may consider adding a *molto ritardando* in the second to last measure of the movement (measure 78) as a way of intensifying the ending. This *molto ritardando* will also help to facilitate the muffling that would then be executed on the 29-, 26-, and 23-inch timpani. After striking the last note of the piece (the downbeat of measure 78), the performer can muffle the remaining drums from low to high, beginning on the upbeat of beat one, using an eighth note subdivision.
Chapter 3: *Variations for Solo Kettledrums* by Jan Williams

BIOGRAPHY OF JAN WILLIAMS

Jan Williams (b. 1939) is a percussionist, conductor, and educator whose career has followed many of the significant milestones of contemporary percussion music from the middle of the 20th century through the present. Williams is somewhat of a "witness to history" with regard to percussion; he has worked with composers such as John Cage, Morton Feldman, Elliott Carter, Lukas Foss, Frederic Rzewski, and many others on works (many of which were written for him) that have become highly noteworthy staples of the modern percussion repertoire. Through his role as an educator and as a staunch proponent of the commissioning of new music, he has helped launch the percussion ensemble into a place of high regard.

Born in Utica, New York, Williams was first educated in percussion at the collegiate level at the Eastman School of Music, but eventually transferred to the Manhattan School of Music where he went on to receive his Bachelor and Master of

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Music degrees in 1963 and 1964, respectively. Williams was drawn to the Manhattan School of Music by the school's legendary percussion teacher, Paul Price. Price was an instrumental figure in the development of the modern percussion ensemble. While teaching at the Manhattan School of Music, he placed a large emphasis on the study of percussion ensemble repertoire, something that, at the time, was quite uncommon in collegiate music. He was also programming pieces that were then considered quite avant-garde, but have since become standards of the repertoire; works by composers such as John Cage, Lou Harrison, and Henry Cowell. Price founded Music for Percussion, the company that would eventually publish *Variations for Solo Kettledrums*, amongst many other important works for solo percussion and percussion ensemble. Price, alone, is credited with introducing over 400 works for percussion. Price's influence left quite the impression on Williams, as this repertoire would become a huge inspiration in the development of his own musical aesthetic. While at the Manhattan School of Music, some of Williams' classmates in the percussion studio included John Bergamo, Max Neuhaus, and Ray DesRoches.

Immediately after he received his Master's degree, Williams accepted a position as a percussionist for the Creative Associates at the Center for the Creative and Performing Arts at the University of Buffalo along with his former classmate, John Bergamo. In fact, Bergamo personally recommended Williams for this position to the

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99 Ibid., 9.
100 Ibid.
101 Ibid., 10.
103 Ibid., 9.
group's musical director, Lukas Foss. While he was with the Creative Associates, Williams and Bergamo volunteered to start a percussion ensemble for the students at the University of Buffalo, using their experiences in Paul Price's ensemble at the Manhattan School of Music as their model, programming much of the same repertoire that they encountered as students.

It was during his time in Buffalo that Williams co-founded the New Percussion Quartet in 1966. He formed the group with Bergamo's replacement in the Creative Associates (Bergamo left Buffalo just prior to this to move to the West Coast), Ed Burnham, and two members of the Buffalo Philharmonic, John Rowland and Lynn Harbold. The New Percussion Quartet is considered to be one of the first professional percussion ensembles in the world. The New Percussion Quartet’s mission was to “encourage the performance and creation of new percussion ensemble music.” The quartet sponsored an international percussion ensemble composition contest in 1967, which yielded over 79 new works for the medium. The New Percussion Quartet eventually disbanded due to a lack in funding, but their legacy proved to be crucial in the creation of similar groups in the country and the world during this time period. Additionally, Williams’ endeavors with this group helped to cement his place as one of the staunchest proponents of contemporary music in this part of the century.

104 Ibid.
105 Ibid., 10.
106 Ibid., 11.
107 Ibid.
109 Ibid.
110 Ibid.
While he was pursuing his work with the Creative Associates and the New Percussion Quartet, Williams became the full time professor of percussion at the University of Buffalo in 1967, a position he held for 30 years. He also served as chair of the music department there from 1980 to 1984.\textsuperscript{111} He would go on to become the co-director of the Center for the Creative and Performing Arts, as well as the Co-Artistic Director of North American New Music Festival from 1985 to 1991.\textsuperscript{112} He is now the Professor Emeritus of Music at the University of Buffalo.

\textit{VARIATIONS FOR SOLO KETTLEDRUMS}

\textit{Variations for Solo Kettledrums} was composed and completed in 1964 while Williams was a graduate student at the Manhattan School of Music.\textsuperscript{113} The work itself is dedicated to Williams’ teacher, Paul Price, whose publishing company, Music for Percussion, published the work in 1968.\textsuperscript{114} It was under the encouragement of Price that Williams composed \textit{Variations for Solo Kettledrums}, which he would also premiere at his Master’s degree recital.\textsuperscript{115} In an e-mail interview with the composer, Williams said:

\begin{itemize}
\item \textsuperscript{111} “Jan Williams,” accessed October 18, 2015, http://www.amusicalfeast.com/bios.html#jan.
\item \textsuperscript{112} Ibid.
\item \textsuperscript{113} Thad Anderson, “Twelve-Tone Timpani: Jan Williams’ ‘Variations for Solo Kettledrums,’” \textit{Percussive Notes} 46, no. 4 (August 2008): 48.
\end{itemize}
Price was always looking to expand his Music For Percussion catalog as well as percussion repertoire in general and I think that he felt solo timpani was underrepresented, so that’s one reason he suggested that I write a solo timpani piece.\textsuperscript{116}

Since the premiere of this work, the piece has gone on to become a staple in solo timpani literature, frequently being programed in both undergraduate and graduate degree percussion recitals, as well as often being performed as an audition piece and being featured as a solo in non-academic percussion recitals.

At the time when Williams’ wrote this piece, he had previously studied Elliott Carter’s \textit{Six Pieces for Four Kettledrums}; two of these movements, “Recitative” and “Improvisation” were published, while the other four were only available in manuscript form via Paul Price. These pieces would eventually become the highly regarded and frequently performed, \textit{Eight Pieces for Four Timpani}, which Williams actually helped Carter to revise.\textsuperscript{117} Williams has cited these pieces as being heavily influential in his composing of \textit{Variations for Solo Kettledrums}, and there are several compositional factors that the two pieces share in common, such as metric modulation.\textsuperscript{118} Beyond this similarity, though, \textit{Variations for Solo Kettledrums} is a distinct and unique addition to solo timpani repertoire.

At the time that this document was written, there is no known professional recording of \textit{Variations for Solo Kettledrums}.

\textsuperscript{116} Jan Williams, E-mail Interview by Naomi Joy Marcus, October 24, 2015.
\textsuperscript{118} Ibid., 49.
ANALYSIS

As the title implies, the piece is organized in theme and variations form; there are six movements, the first being the “Theme” and each subsequent movement being one of five variations on this theme. The piece is written using twelve-tone theory\(^{119}\)\(^{120}\), with a clearly defined tone row as the basis for the entire work, provided by the composer in the introductory performance note to the score (see Figure 30).

![Tone Row Diagram](image)

Figure 30 Variations for Solo Kettledrums, Tone Row, Program Notes, Score

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\(^{119}\) The twelve-tone technique is a method of musical composition that was developed by the Austrian composer, Arnold Schoenberg. This technique involves using all twelve notes in the chromatic scale in a given piece using a pre-determined tone row. The tone row is a pre-determined ordering of the twelve chromatic pitches that is specific to the given piece. Typically, the notes in the piece must appear in the order that they are given in the tone row, and no note is repeated within the row. This method of composition is known for its resulting lack of tonality. The composer may then use four different kinds of transpositions to this row. The prime form is a statement of the row in its original order, the retrograde is the reversal of this prime form, the inversion is the prime form with inverted intervals, and the retrograde inversion is the reversal of the inversion.

Williams has stated that it was Paul Price who gave him the idea to write a timpani solo using the twelve-tone system. In the program notes to the piece, the composer writes:

Each movement is based on four of these original 12 notes, their inversion, retrograde, or retrograde-inversion. In each movement, four notes are treated as individual rows. E.g. in the THEME the first four notes and their retrograde are used; in VARIATION NO. 1 the inversion and retrograde-inversion are used. This same pitch scheme is followed throughout the piece.  

Williams said that when composing the piece, he determined the tone row first and the subsequent pitches for each movement before writing anything else. Every movement of the piece can be analyzed based on the order of pitches as they appear in the actual context of the movement, not in order from lowest to high (or as they appear in the tuning key at the top of each movement). Each movement of the piece can be analyzed according to three levels: which of the three tetrachords of the original twelve-tone row Williams derived the “new” row for each respective movement from; how the “new” tone rows relate to the original twelve-tone row in terms of their transposition; and how

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121 Jan Williams, E-mail Interview by Naomi Joy Marcus, October 24, 2015.  
123 Jan Williams, E-mail Interview by Naomi Joy Marcus, October 24, 2015.  
124 A tetrachord, with regard to twelve-tone theory, is a set of any consecutive four notes within a tone row.
Williams’ transposes the new row itself in each movement. Each movement can be analyzed as indicated by these different categories in Table 1.

<table>
<thead>
<tr>
<th>Movement</th>
<th>Tone-row Tetrachord Used</th>
<th>Transposition of Original Tone Row</th>
<th>“New” Tone Row Used</th>
<th>Transposition of “New” Tone Row Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theme</td>
<td>1</td>
<td>Prime</td>
<td>F; C-flat; D; E</td>
<td>Retrograde</td>
</tr>
<tr>
<td>Variation No. I</td>
<td>1</td>
<td>Inversion</td>
<td>F; B; A-flat; G-flat</td>
<td>Retrograde-Inversion</td>
</tr>
<tr>
<td>Variation No. II</td>
<td>2</td>
<td>Prime&lt;sup&gt;126&lt;/sup&gt;</td>
<td>G; F-sharp; A-flat; C</td>
<td>Retrograde</td>
</tr>
<tr>
<td>Variation No. III</td>
<td>2</td>
<td>Inversion&lt;sup&gt;127&lt;/sup&gt;</td>
<td>E-flat; F-flat; D; B-flat</td>
<td>Retrograde-Inversion</td>
</tr>
<tr>
<td>Variation No. IV</td>
<td>3</td>
<td>Prime</td>
<td>B-flat; C-sharp; A; E-flat</td>
<td>Retrograde</td>
</tr>
<tr>
<td>Variation No. V</td>
<td>3</td>
<td>Inversion</td>
<td>G; B-double flat; C; D-flat</td>
<td>Retrograde-Inversion</td>
</tr>
</tbody>
</table>

Table 1 Twelve-tone analyses of each movement in *Variations for Solo Kettledrums*

The composer does not recall how he determined the tone-row and its subsequent transpositions, but he has stated that he took the various ranges of each timpani into consideration when determining the pitch material for each of the movements in the piece.

<sup>125</sup> The phrase “new” tone row refers to each movement’s respective four-note row that is unique to the original twelve-note row set forth by the composer in the program notes to the piece.

<sup>126</sup> Upon analysis and after reviewing Williams’ sketches from the composition of this piece, it would appear that this movement’s row and transpositions should be analyzed such that the pitches used are in fact from the prime form of the second tetrachord of the original tone row, but instead of appearing in that order in the movement, they begin on the second note (low-G) and then go backwards (F-sharp, A-flat, C).

<sup>127</sup> Similar to the note about Variation No. II, Variation No. III can be analyzed in such a way that the movement’s row begins on the second note (E-flat) of the inversion of the second tetrachord of the original tone row, and then moves backwards (F-flat, D, B-flat).
Each movement is quite different in terms of its motivic content and overall musical character. Williams contrasts various tempi and timbres from movement to movement.

The *Theme* is a stately introduction to the work as a whole. The movement is marked as a quarter note equaling 120 beats per minute, and begins with a thirty-second grace note flourish tied to a rhythmic motive that repeats one more time in the piece (see Figure 31).

![Figure 31 Theme, mm. 1-4, Score](image)

In this opening statement taking place from measure 1 through measure 4, Williams includes a metric modulation that occurs between measure 3 and measure 4 in which the quarter note triplet becomes the new quarter note. Williams notates this with triangular note heads and the time signatures of 6/6 and 3/6. In the program notes to the

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128 Jan Williams, E-mail Interview by Naomi Joy Marcus, October 24, 2015.
piece, Williams refers to these time signatures as “micro rhythmic signatures.” He writes in the notes:

The micro-rhythmic signatures (e.g. 3/6 in measure #4) indicate a rhythmic sub-division of one tempo may become a new tempo, or a larger or smaller sub-division of a new tempo. Measures #2 and #3 of THEME sound alike rhythmically, however the 6th note is introduced in measure #3 to prepare for the rhythmic modulation occurring in measure #4. The new tempo simply “floats out” of the previous tempo. The exact relationship between the tempi is always kept.”

Composers will often notate metric modulations by indicating the new time signature and the relationship between the two tempos with some kind of note value. When asked about how he chose to notate metric modulations in this way, Williams said:

Michael Colgrass used the different note heads in some of his scores at that time. I decided to use his system because it made rational sense. If one breaks down the whole note dividing by 2, then why not by 3, i.e. 3rd and 6th notes. Triplets are irrational, 3rd notes are rational.

Visually, this way of notating metric modulations makes for greater ease in the performance, as it becomes much more efficient for the performer to recognize the new and old tempos at a glance.

In the Theme, as well as in every subsequent movement of the piece, William’s makes use of three different kinds of fermati, each of which denote a different length of

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130 Jan Williams, E-mail Interview by Naomi Joy Marcus, October 24, 2015.
time. Williams outlines the difference between each of these *fermata* in the program notes (see Figure 32).

![Diagram of fermata durations]

Figure 32 *Fermata* used in *Variations for Solo Kettledrums*, Program Notes, Score

These differentiated *fermata* provide a balanced pacing in each movement. For example, in the *Theme*, Williams uses two of the three *fermata*: he uses the *fermata* that instructs the performer to rest for three to four seconds between measure 9 and measure 10 and between measure 20 and measure 21, and he uses the *fermata* that instructs the performer to rest for one to two seconds between measure 14 and measure 15. In the instances of the longer *fermata*, they each came before moments of sudden changes in texture or motivic material. For example, Williams reprises the original phrase that begins the piece in measure 10, and this comes after a prolonged *molto ritardando* and *diminuendo* in measure 8 and measure 9 (see Figure 33). It would be appropriate for the performer to observe a slightly longer moment of silence before bringing back this familiar material.
Conversely, Williams instructs the performer to wait a shorter amount of time between measure 14 and measure 15. In this instance, Williams is repeating the material found in the original opening statement of the piece in which the tempo modulates. Instead of continuing this same material, he interrupts this with the brief, shorter fermata, and then introduces completely new material (preceded by the same original thirty-second-note flourish) in measure 15 (see Figure 34). This shorter amount of space makes the introduction of the new (unexpected) material all the more surprising to the listener.

The Theme is a strong introduction to the rest of the work. Variation No. I is highly distinct from its predecessor. This variation is marked with the tempo indication,
“Fast,” whereas the first movement makes greater use of space, moments of abrupt pause, and larger note values. Variation No. I relies more on smaller note values, longer phrases, and the use of different numbered note groupings.

In addition to the tempo indication, “Fast,” Williams provides the tempo markings of the sixteenth-note equaling 432 beats per minute and the quarter note equaling 108 beats per minute. While the quarter note tempo in this movement is slower than the marked quarter note tempo in the Theme, the movement has a much faster sense of pacing due to the fact that there is a constant underlying sixteenth-note subdivision throughout the entire movement, making the overall sense of pulse seem faster. Additionally, there is no time signature in this movement, and Williams separates some of the longer phrases with longer fermati. This separation between phrases creates a sense of metric and spatial disorientation for the listener.

It is in Variation No. I that we see how Williams adapts traditional twelve-tone theory in terms of the ordering of pitches. In the second line of the piece, Williams states the movement’s tone row, followed by repeated sixteenth-notes on the low G-flat timpano played by the left hand. This is followed by the right hand outlining the remaining pitches of the retrograde of the tone row over the top of this ostinato pattern (see Figure 35). While this texture is rhythmically interesting because it contrasts a rigid, stagnant musical line with a more fluid moving line, it strays away from what the interpreter of this piece would otherwise expect to hear since it is a twelve-tone piece.

131 This rhythmic idea makes the movement feel even faster for the performer, as they are instructed to execute the repeated sixteenth-notes with one hand. The execution of this section will be discussed in further detail in the “Performance Suggestions” section of this chapter.
This is because Williams interrupts the order of pitches as they appear in the tone row by way of the repetitive low-G sixteenth-notes. This idea is also seen in the following line when Williams similarly outlines the tone row (this time in its prime form) in the right hand, while the left hand plays the underlying subdivisions.

Figure 35 Variation No. 1, 2nd line, Score

Williams continues to use separation of hands throughout the rest of the movement, elaborating on it by making the left hand melody more syncopated, and moving the repeating sixteenth-note subdivisions to other adjacent drums. Both of these compositional ideas follow the long fermata in the fifth line of the piece. Williams continues to use the different fermati in this movement similarly to how he used them in the Theme; longer fermati are placed between sections of stark motivic contrast, exemplified by the sixth and seventh lines of the piece, while shorter fermati serve as brief interruptions, like the two phrases in the fourth line. Both of these instances are marked with a pianissimo dynamic marking, and both are rhythmically similar.

The texture changes in the seventh line of the piece as the music shifts from two separate lines to one single line. Here, Williams prolongs and embellishes the retrograde
of the tone row of the movement (see Figure 36). Because of the absence of bar lines, this rhythm can be difficult for the performer to discern, and execute, therefore the author has provided the following re-beaming of the phrase beginning on the first eighth note of the line (see Figure 37).

The movement ends with instructions to play with fingers, as opposed to mallets. This phrase is marked with the dynamic marking of \textit{ppp}, so the overall affect is one of extreme lightness and airiness. This creates the affect that the music simply floats off into the air, and is an unadorned contrast to the heavier timbre experienced in the rest of the movement.
Variation No. II, similar to the Elegia from John Bergamo’s *Four Pieces for Timpani*, requires the performer to use four timpani mallets. Bergamo and Williams were classmates at the Manhattan School of Music, and Williams has said that in addition to having a great deal of respect and admiration for Bergamo as a musician and colleague, in general, he also cites *Four Pieces for Timpani* as being an inspiration for *Variations for Solo Kettledrums.*

Interestingly, Thad Anderson has pointed out that the movement is a precise palindrome, in that the movement ends just as it begins. The point at which the movement begins its reversal of material until the very end occurs in measure 16, which is the exact reverse of measure 8 (see Figures 38 and 39).

![Figure 38 Variation No. II, mm. 7-8, Score](image)

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132 This four-mallet timpani technique as used in the context of this piece will be discussed in the “Performance Suggestions” section of this chapter.

133 Jan Williams, E-mail Interview by Naomi Joy Marcus, October 24, 2015.

The material from measure 9 through measure 15 is unique because it is not repeated later on. It is transitional in terms of musical function. This particular section is also exceptional because it does not seem to follow the twelve-tone structure with regard to the tone row for the movement. This is due to the fact that the notes are placed out of order and do not conform to any transposition (see Figure 40).
In Variation No. II, Williams contrasts moments of longer, *tenuto* notes and *legato* phrases with shorter, *staccato* and separated notes and phrases. Williams also makes use of additive compositional techniques, often as a way of constructing four note chords, as in measure 3 (see Figure 41). Another similarity between this piece and the *Elegia* from Bergamo’s *Four Pieces for Timpani* is William’s use of muffled notes. These muffled notes are notated in strict rhythm, and therefore should be executed as such. Additionally, they add another timbre to the overall piece. Particularly in measure 5 and measure 6, amidst more articulated *staccato* notes of faster rhythmic values, these muffled notes stand out as an interesting new layer of sound for the listener.

![Figure 41 Variation No. II, m. 3, Score](image)

*Variation No. III* is perhaps the liveliest movement of the piece, and continues to use many of the compositional devices already seen in previous movements, such as

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135 In an e-mail interview with the composer, Williams stated, “In all cases where I indicate that certain pitches are damped, it’s because I want the un-damped pitches to be the only one sustaining,” therefore any further discussion regarding the dampening of notes and their musical outcome is the result of the author of this document’s own musical interpretation.

136 In his original sketches, Williams labeled this movement as a “Scherzo.”
the separation of hands and metric modulations. Williams also uses an abbreviated form of notating sixteenth notes, as evidenced in measure 8 and measure 25 (see Figure 42). The tempo marking of this movement is quarter note equals 120 beats per minute. Consequently, sixteenth notes at this tempo are quite rapid. The fact that they are often alternating between two drums presents some technical demands for the performer. The author interprets the use of Williams’ shorthand notation of the sixteenth note as an indicator that in instances of large groupings of repeated sixteenth notes, some emphasis should be placed on the first note of each respective grouping. The result sounds quite reminiscent of a roll (particularly when played at the performance tempo) because more attention is paid to the connection between each note, rather than the precise articulation.

Figure 42 Variation No. III, m. 8, Score

The movement begins in a 6/8 time signature with a motive that creates a sense of rhythmic ambiguity in measure 1 and measure 2. Williams repeats this same figure in measure 18 and measure 19 and briefly in measure 26 (see Figure 43). This motive is highly syncopated and produces a sense of metric confusion in that Williams implies a
sense of a duple feel within the compound meter, but then adds a notated duple figure at the end of the second measure of the phrase. This deceives the listener in terms of how they perceive the main beats and subdivisions.

Figure 43 Variation No. III, mm. 1-2, Score

There are several other moments in the movement where Williams alludes to a duple meter by way of phrases that extend over the bar line, for example in measure 7 and measure 8, measure 9 through measure 11, and measure 34 and measure 35 (see Figure 44).

Figure 44 Variation No. III, mm. 9-11, Score
Williams makes use of metric modulations throughout this movement, although he does not notate these modulations in the same manner in which they were notated in the Theme. The modulation in this movement begins in measure 36. In the two measures prior to this moment, three quarter notes are spaced out in two measures marked with a 6/8 time signature, respectively (again, we see the overlay of duple over compound meter). In measure 36, the time signature changes to 4/8, but the quarter note value stays the same. In measure 40, the time signature changes back to 6/8, but the old quarter note now equals the new dotted quarter note, making the restatement of the motive from measure 1 one and one half times as fast as its first occurrence,\textsuperscript{137} creating a rapid and animated push towards the end of the movement.

*Variation No. IV* begins with the marking “Tense-Agitated” and two metronome markings: the sixteenth note equaling 440 beats per minute and the quarter note plus one sixteenth note equaling 88 beats per minute. The movement is written in mixed meter; all of the time signatures are written as divisions of the sixteenth note. This movement is highly rhythmically intricate, and requires the utmost observance of subdivisions on behalf of the performer. Its has the effect of being a brief and startling interruption just before the final movement of this work, as it is both startling in it’s thematic contrast and a much shorter temporal length than any of the other movements.

Williams states the row in the first four measures of the piece using four separate time signatures of 5/16, 6/16, 3/16, and 4/16 (see Figure 45).

\textsuperscript{137} Assuming the performer is observing the exact tempo marking of a dotted quarter note equaling 120 beats per minute, then the new tempo at measure 40 would be the dotted quarter note equaling 180 beats per minute.
This same material returns in measure 18 through measure 21. After a 1 to 2 second fermata at the end of measure 4 and a moment of brief pause in measure 5, Williams completes the retrograde of this row in measure 6 and measure 7 (see Figure 46). This section is notated with rapidly changing subito dynamic markings, alternating (with the exception of the note in measure 4 and the first note of measure 6) between piano and sforzando.

The notation in this opening phrase alone, creates a sense of great unease and tension, and can be very difficult to execute while trying to maintain a strict sense of
time. The author of this document has created the following example whereby the same exact figure is reconfigured and re-beamed to fit into two measures that utilize a 4/4 time signature (see Figure 47).

![Figure 47 Variation No. IV, mm. 1-7, rewritten using new time signatures and beaming for clarity of reading and execution](image)

This re-beaming functions well because the number of sixteenth notes in measure 1 through measure 7 are equivalent to the number of sixteenth notes that would fill out two full measures in a 4/4 time signature. With the absence of beaming, the performer can still execute the needed separation and abruptness that is implied by Williams’ original notation, and will be able to do so with a greater ease of counting. It should be noted, however, that this is meant to aid primarily in practice, as once this excerpt is placed back into the context of the piece, the performer must observe the brief *fermata* between measures 4 and 5, thus briefly interrupting the overall progression of time in the new two measure sequence.

After a 3 to 4 second *fermata*, Williams instructs the performer to switch from hard sticks to wire drum brushes in measure 5. The performer then plays a four-note grouping that is repeated over the entire span of a 10/16 time signature measure, followed...
by a 12/16 time signature measure. This grouping follows the permutation of B-flat, C-sharp, A, E-flat, or the 29-, 26-, 32-, 23-inch drums. This creates a gesture in which the performer moves from the inner drums to the outer drums, creating a texture that is unique for the standard low to high set up of the timpani. Because of the placement of these repeated four-note groupings over the two odd-metered measures, the four-note groupings extend over the bar line, creating a sense of rhythmic unease and growing tension.

Williams presents a similar idea of this in measure 11, but now the motive is arranged on the drums so that the gesture follows the pattern of the outer drums moving towards the inner drums (or 23-, 32-, 26-, 29-). While this creates an interesting texture, the pattern is slightly easier to execute and fits into a more stable meter. This grouping is now repeated as thirty-second notes over the course of two 6/16 time signature measures. Therefore, the performer can conceptualize this passage as simply fitting this recurring motive into each measure three times.

The texture suddenly shifts in measure 13 through measure 17 when, for the first time in this movement, there is a series of repeated notes on the same timpani, in this case the B-flat drum. Here we see that Williams has once again arranged these notes according to numbered groupings, and has done so over the bar line amongst a series of different meters. Contrary to previous sections in the movement, though, the time signatures in each successive measure are augmented such that they are each successively one sixteenth note shorter in duration. Additionally, beginning in measure 14, each measure has two equal numbered sets of thirty-second notes, each of which is separated
by a sixteenth note rest, which then changes again to one grouping per measure in measure 16 and measure 17 (see Figure 48). Like the changing time signatures, these groupings get smaller by one sixteenth note, such that the sequence of note-groupings goes from four notes in measure 14, three notes in measure 15 and measure 16, and finally two notes in measure 17. While there is not necessarily a pattern at work here in the sense that the same idea repeats from measure to measure, the presence of note groupings is significant, particularly by way of Williams’ use of beaming as a method for organizing these groupings. By employing slight agogic accents at the beginning of each grouping, the performer can emphasize these groupings, despite the odd meters.

![Figure 48 Variation No. IV, mm. 13-17, Score](image)

The movement ends with a restatement of the row as it first appeared at the beginning in measure 18 through measure 21. After another 3 to 4 second fermata, the performer must switch back to hard sticks in measure 22, reiterating the four-note motive that first appeared in measure 11. The retrograde of the movement’s row finishes the
piece, notated in the same highly syncopated manner as the opening of the movement.

Similar to the practice applied to the opening measures of the movement, the author of this document has provided the following rewritten example so that the two measure of 6/16 time signature can fit into one measure of 3/4 time signature for better ease of reading (see Figure 49).

![Musical notation](image)

Figure 49 Variation No. IV, mm. 24-25, rewritten using new time signatures and beaming for clarity of reading and execution

In many ways Variation No. IV is quite possibly the most technically difficult of all the variations because of its rapid implement changes, odd meters, and rhythmic intricacy. It seems to serve the function of brief interlude just before the fifth and final variation.

*Variation No. V* stands as an effective bookend to this six movement work as it shares much in common with the Theme. Like the Theme, Variation No. IV is very broad and stately in nature, has recognizable motives that recur throughout, and contains several metric modulations. The motive that stands out in particular in this variation is the sixteenth-note quintuplet that begins in the first measure of the movement, and then is transformed throughout the rest of the variation. This quintuplet begins on the second
note of the tone row for this movement and future occurrences of this rhythmic motive contain both this same pitch sequence, as well as different sequences. For example, in measure 12 through measure 14, the sixteenth-note quintuplet is presented using the retrograde of the tone row. In fact, this occurs in a passage that repeats the same rhythmic material of the first three measures of the piece, but it starts on the last note of the tone row (as opposed to the first at the beginning of the movement). See Figures 50 and 51 illustrations of this idea exactly as it appears within the context of the piece.

Figure 50 Variation No. V, mm. 1-3, Score

Figure 51 Variation No. V, mm. 12-14, Score
Williams makes great use out of *marcato* articulation markings in this movement, often placing them underneath the sixteenth-note quintuplets. This creates a sense of elongation and emphasis of this odd-note grouping, and it draws attention to this grouping so that it stands out against other subdivisions and note-groupings throughout the entire movement. The frequent interchange of varied subdivisions creates an overall sense of rhythmic disjointedness.

Throughout the movement there are two tempos used: the initial marked tempo of the quarter note equaling 60 beats per minute, and the arrival tempo following all of the metric modulations, which is exactly twice as fast as the initial tempo. The motivic material in the sections with the slower tempo marking tends to be more active and complex; it is in these moments that the dynamic markings are typically louder, there is greater use of accents, and more instances of *marcato*. Additionally, different subdivisions tend to occur more suddenly. Conversely, in the sections with the faster tempo markings, the dynamic markings tend to be softer, and the line becomes more fluid and almost lyrical in character. While Williams also uses various note groupings in these quicker tempos, each of the individual groupings are often connected with slur markings, and the transition between each of them is much more seamless. Please note measure 9 through measure 11 and measure 16 through measure 20 (see Figure 52). This is opposed to the more abrupt juxtaposition of adjacent note groupings of different values.
The texture changes in measure 26 when the hands are separated into two distinct musical lines. Here we see that even more emphasis is placed on the odd five-note groupings because each hand alternates the constant subdivision (now grouped as eighth notes), while the other hand provides a more stable beat (see Figure 53). This voice exchange, as well as the resultant five over two polyrhythm, can be very disorienting to both the listener and the performer. It becomes very difficult to ascertain what the actual metric pulse is. Williams marks a crescendo underneath this line, which leads into a rest on the downbeat of measure 28, followed by a sixteenth-note triplet flourish into a roll, followed by another full measure of sixteenth-note quintuplets. This moment sounds almost improvisatory in nature due to its deceptive nature and lack of readily distinguishable pulse.
Measure 29 is of particular interest. It contains a series of four-note groupings (the prime form of the tone row) presented repeatedly in the texture of sixteenth-note quintuplets. This causes the four-note grouping to be displaced from each large beat of the 4/4 measure by one quintuplet partial. The tone row is also presented via the large beats of the measure, cleared by accents placed under each of these notes (see Figure 54). Thus, we see the prime form of this movement’s tone row presented as a whole on two levels: once on the macro level as the quarter note beats of the measure, and five times on the micro level as sixteenth note quintuplet partials.
After a brief pause, there is a rapid thirty-second note figure that slows to sixteenth notes, stating the retrograde of the tone row. This is followed by a *decrescendo* marking underneath the prime form of the tone row, presented in the texture of eighth note triplets, followed by one last statement of the movement’s very first sixteenth-note quintuplet. This time it is written as an eighth-note quintuplet, making this final statement of the first motive of the piece particularly intense. There is a written *diminuendo* marking through the end of the piece underneath a repetition of a simple statement of the prime form of the row using a more ascertainable rhythmic structure contrasting what had previously been presented throughout the rest of the movement. The performer is instructed to slow down greatly, giving the sense that the movement, and thus the entire six-movement work, simply dies away to *Niente*, bringing this highly intricate and varied work to a subtle, understated close.

**PERFORMANCE SUGGESTIONS**

Williams offers stick and mallet suggestions for every individual movement, and in the program note to the work says, “Sticks to be used are indicated at the beginning, and sometimes during, each movement. Hard sticks may be of any type, but laminated wool is suggested.”\(^{138}\) While Williams’ mallet suggestions offer an adequate starting

point for performances of this work, some additional discussion regarding more specific mallet choices seems warranted.

For the *Theme*, Williams suggests that the performer use medium soft sticks. It is the opinion of the author that the reasoning for this is because timpani mallets of a medium soft covering would allow the performer to execute the full, broad range of written dynamics in this movement. Another suggestion is to use a medium weight “general” timpani mallet, allowing the performer to execute some of the more articulate passages that use faster subdivisions and grace notes. For the performance of this movement, the author chose to use Cloyd Duff #2 hickory timpani mallets, due to their medium thickness felt wrapping and slightly heavier cores.

In *Variation No. I*, Williams specifies that the performer should use hard sticks, but specifically ones that are not exclusively wooden. The author chose to use Cloyd Duff #10 Chamois brilliant hard hickory shaft timpani mallets because the thin chamois wrapping brings out the highly articulate and syncopated rhythmic passages of this movement with a more biting clarity than felt wrapped timpani mallets. Also, it seemed that this kind of timbre was a welcomed contrast to the more “timpani-like sound” of the *Theme*. If a performer should decide that they want to use a mallet using a felt covering, and therefore, to produce a timbre that is not quite as bright and cutting, it is recommended that they select a mallet that has a very thin layer of felt, and possibly has a bamboo shaft. This kind of material lends itself better to lighter movement around the drums. Examples of a mallets fitting this description include the Grover TMB-T3 John
Tafoya bamboo ultra *staccato* timpani mallets or the JGpercussion David Herbert DH1 Mozart Carbon Fiber timpani mallets.

In addition to mallets, *Variation No. I* requires that the performer play the final figures of the movement with their fingers. Using one’s fingers as a playing implement on timpani produces a sound that is quite high in timbre and overtones. The performer should consider using a mallet for this movement that will offer distinct contrast to this much brighter sound. It is recommended that when using their fingers as a striking implement, the performer strike the drums with the tips of their fingers, as opposed to their whole finger. This will give a more articulate sound, and maintain tone and pitch of the instrument (see Figure 55).

Figure 55 Finger stroke used in *Variation No. I*
Variation No. II requires the performer to use four timpani mallets. The only suggestion that Williams offers at the start of this movement is that the performer use “soft sticks.” Similar to the Elegia in John Bergamo’s Four Pieces for Timpani, it is advised that the performer use four of the same timpani mallets, resulting in two matched pairs. The author of this document used Cloyd Duff #5 soft legato bamboo shaft timpani mallets similar to those chosen for the Elegia. The combination of the slightly heavy core with a thick layering of soft felt, as well as the light bamboo shafts, contributed to a sound that seemed stylistically appropriate for this movement.

For Variation No. III, Williams indicates that the performer should use “light rattan sticks.” In the program notes to the piece, he writes, “In VARIATION No. 3 use rattan handles of xylophone mallets.” Due to Williams’ specificity of this implement choice, it is recommended that future performers of this work make every attempt to locate and use rattan handles. Should they be interested in experimenting with other sound possibilities, it is important that they consider using implements that achieves a “resulting sound [that] is very light and exploits the higher harmonics of the drums.”

The author of this document experimented with 3/8 inch diameter timbale sticks with and without covering and found these to be sufficient.

140 Jan Williams, E-mail Interview by Naomi Joy Marcus, October 24, 2015.
141 In response to a question regarding the issue of other potential implements instead of light rattan handles, Williams said, “I discovered bamboo knitting needles when learning Frederic Rzewski’s ‘To the Earth’ and I’m thinking the butt end of say, #10 needles might work for this variation. Just a thought.” To the Earth is a piece written for clay flower pots and speaking percussionist.
The performer should be careful to strike the drum with the butt end of the rattan handles. This smoother end will be less likely to dent, or worse, puncture the timpani heads. When using light rattan handles on timpani, the performer should remember that these implements are ideal for this movement due to their light, highly articulate sound. These are not meant to necessarily play loud. In other words, it is possible to “max-out” the drums while using rattan handles. If a performer were to play forte and fortissimo dynamics using these implements in the same way that they would a standard or wooden timpani mallet, they can potentially damage the timpani heads by either denting or puncturing them. It is recommended the performer may wish to consider exercising some caution when using these unconventional beaters.

Variation No. IV is the only variation in this movement whereby the performer is specifically instructed to used two different kinds of beating implements. The beginning of the movement is to be played with hard sticks that are not wooden. The performer may wish to use chamois wrapped timpani mallets, similar to those used in Variation No. I. Although the performer certainly may also use a mallet that has a very thin layer of felt covering, it is advised that this mallet be relatively light in weight, as the thirty-second note passages at the written performance tempo of the sixteenth note equaling 440 beats per minute would be very difficult to execute using a very top-heavy mallet.

After a brief fermata following measure 7 in Variation No. IV, the performer is instructed in the score to switch to drum brushes. The performance note for the entire
work states that, “The brushes are used for snare drumming.” It is recommended that the performer use wire snare drum brushes (as opposed to nylon), as the composer has indicated this will produce a more appropriate “higher/lighter sound.” The author of this document pushed the handles of the wire brushes used for this movement to incur their maximum spread (see Figure 56).

Figure 56 Wire brushes used in Variation No. IV

The final movement of this piece, Variation No. V, requires the performer to use medium soft sticks. The only other movement in this work to specify such mallets is the Theme. It would only seem appropriate for the performer to use the same mallet for the

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143 Jan Williams, E-mail Interview by Naomi Joy Marcus, October 24, 2015.
last movement as they did for the first movement. Stylistically, the musical material in Variation No. V is very similar to the Theme. Both movements are stately and utilize more recognizable repetitive motivic material than any of the other movements. A general mallet of moderate weight will allow the performer to execute the wide range of dynamics and articulation in this variation. Should the performer decide to use the same mallets for Variation No. V as they did for the Theme, they may find that this will contribute to the overall arc of the work.

There are certain suggestions regarding the overall set-up for Variations for Solo Kettledrums. If the performer is comfortable sitting, they may find that they will be able to do so for the Theme, Variation No. II, and Variation No. V, as each of these movements utilize more moderate tempi. They also lack significantly rapid shifts between the timpani, particularly the outermost drums. It is recommended, however, that the performer stand when playing Variation No. I, Variation No. III, and Variation No. IV.

Variation No. I requires the performer to maintain very soft dynamics with relatively hard mallets. These figures (particularly the repeated sixteenth-note ostinato) at the written tempo of a quarter note equaling 108 beats per minute are quite rapid. As previously mentioned, the performer is required to put down their mallets following a fermata in the last line of the movement so that they can play the remainder of the variation using just their fingers. While this fermata indicates that the performer may take up to five to seven seconds to observe this space, every effort should be made to make this “mallet switch” as efficient and seamless as possible. By standing, the performer can be in closer proximity to their mallet tray, and can do this switch in more
of a unbroken manner, without any unnecessary reaching or movement. Finally, there are several moments when the performer will have to cross-stick certain passages. Standing will allow the performer a greater sense of physical freedom to execute the highly difficult technical nature of this movement.

Similarly, Variation No. III features moments including highly rapid movements around the drums. The performer would benefit from the ability to move to the timpani much faster while standing. It is recommended that the performer stand while playing Variation No. IV. Of particular note is measures 22 and 23. Here, the performer must play thirty-second note groupings using hard mallets while executing a decrescendo to piano. The rapid switch from hard mallets to brushes will be more efficient if the performer is standing because they will be in closer proximity and accessibility to their mallet tray.

It is recommended that the performer set up two music stands as mallet trays, one next to the outside of the 32-inch timpano, and one next to the outside of the 23-inch timpano. This allows the performer to execute the rapid mallet changes in Variation No. I and Variation No. IV with greater efficiency. In Variation No. I, at the end of the figure immediately preceding the fermata in the last line of the movement, the performer can place the left hand mallet on the mallet tray nearest the 32-inch timpano, and in one continuous gesture move towards the 23-inch timpano (the next drum to be played) while simultaneously placing the right hand mallet on the mallet tray nearest this timpano. In context, this single movement eliminates any unnecessary movement or any other gestures that would disrupt the music and distract the listener. The performer can utilize
a similar method for changing mallets in *Variation No. IV*, particularly because the
*fermati* preceding each mallet change in this movement are considerably shorter. The
rest of the mallets used for the entire work can be equally distributed amongst the two
mallet trays. The performer may read directly from the score when studying and
subsequently performing this piece, as there are no difficult page turns or extra loose leaf
pages.

A strategy should be in place regarding tuning changes between each movement
so that the performer is completely confident in arriving at these new pitches. Said
strategy will eliminate any unnecessarily long gaps between variations. The following
table (Table 2) outlines all of the tunings for each movement, and the intervals that each
timpano must raise or descend to arrive at the new pitch (instances where the pitch stays
the same in consecutive movements will be marked with NC for “no change”\(^{144}\)). Once
the performer memorizes and is confident with the pitch relationships between the old
and new pitches, they will be able to execute the tuning changes between each movement
in a highly efficient manner.

\(^{144}\) This indication takes enharmonic pitches into consideration.
<table>
<thead>
<tr>
<th>Movement</th>
<th>Tuning</th>
<th>Intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theme</td>
<td>F, C-flat, D, E</td>
<td>m2⇑, m3↓, m3↓, m2⇑</td>
</tr>
<tr>
<td>Variation No. I</td>
<td>G-flat, A-flat, B, F</td>
<td>m2⇑, NC, m2⇑, m2⇑</td>
</tr>
<tr>
<td>Variation No. II</td>
<td>G, A-flat, C, F-sharp</td>
<td>m3↓, M2⇑, M2⇑, m3↓</td>
</tr>
<tr>
<td>Variation No. III</td>
<td>F-flat, B-flat, D, E-flat</td>
<td>P4⇑, NC, m2↓, NC</td>
</tr>
<tr>
<td>Variation No. IV</td>
<td>A, B-Flat, C-sharp, E-flat</td>
<td>M2⇑, m2↓, m2↓, M2↓</td>
</tr>
<tr>
<td>Variation No. V</td>
<td>G, B-double flat, C, D-flat</td>
<td>End of piece</td>
</tr>
</tbody>
</table>

Table 2 Variations for Solo Kettledrums, outline of tuning changes

Williams gives some sticking suggestions throughout Variations for Solo Kettledrums. These suggestions are based on a particular sound and/or phrasing that the composer had in mind, achieved by a predetermined sticking. When asked about this, Williams stated that when stickings are indicated, the performer should observe them, and when they are not, then they can determine these on their own.\(^{145}\) Certain sections of the piece require some discussion regarding sticking suggestions.

In the Theme, it is recommended that in any of the repeating motives, the performer use consistent stickings so as to preserve the phrasing each time these motives occur (see Figure 57). For example, the author recommends the following sticking suggestion for the measure 1 through measure 5 (including the thirty-second note grace-note pick-up notes):
These stickings can also be used when this same motive occurs in measure 10 through measure 14. As shown, much of this example utilizes hand-to-hand alternating sticking, which can be used for much of the rest of the movement. This alternating sticking is physically feasible for much of the movement, and emphasizes the theme’s aggressive, yet majestic, character. Additionally, alternating sticking works quite well in emphasizing the metric modulations, as it provides a sense of stability to the performer. Playing these modulations with a single hand can lead to rushing, and therefore, an inaccurate modulation. Double right-handed stickings are used because they help to emphasize the quarter note pulse and offer the performer a sense of stability right at the outset of the movement (particularly after the very rapid thirty-second note flourish pick-up notes). Double stickings are also used to facilitate fast movements between drums, such as in measure 19 (see Figure 58). In this example, the double stickings help to preserve the rhythmic integrity of each note grouping (i.e., sixteenth-notes vs. triplets).
Variation No. I includes many stickings provided by the composer. This movement features repeating sixteenth-note ostinato figures in the left hand on the 32-inch timpano while a moving line is played in the right hand, requiring the performer to maintain steady, yet light, sixteenth notes at the rapid performance tempo. It is recommended that when executing these ostinati, the performer utilize finger strokes\textsuperscript{146}, as well as playing just slightly closer towards the center of the drum. This playing spot will eliminate any excessive ringing from the timpani that would make this line sound louder than intended. It will also produce a slightly more articulate sound, maintaining the underlying subdivision. Williams indicates the repeated left hand sticking and the moving right hand line in the first line of the movement. The performer should continue to use this sticking for similar figures. Similarly, in the fourth line of the movement, Williams indicates a hand-to-hand alternating sticking over a sixteenth note passage that moves across drums. A similar phrase is repeated in the following line, and where this same alternating sticking can be used.

\textsuperscript{146} Finger strokes are executed by guiding the motion of the mallet towards and away from the timpani head using the fingers, as opposed to the wrist and/or forearm.
Virtually all of the sticking considerations in Variation No. II are dependent upon the independence of each mallet in the set of four. In other words, for the majority of the movement, mallet number 1 will play the 32-inch timpano, mallet number 2 will play the 29-inch timpano, mallet number 3 will play the 26-inch timpano, and mallet number 4 will play the 23-inch timpano. Like Elegia in John Bergamo’s Four Pieces of Timpani, the performer can maintain a comfortable “perfect fifth” interval in each hand, and may utilize the inside playing spots. The exceptions to these sticking generalizations are measure 12 through measure 15. Here, Williams provides stickings, in which the left hand plays the two note chord while the right hand interjects sforzando notes on the 23-inch timpano, which is then reversed in measure 14. The performer may find that for the thirty-second notes on beat 4 in measure 15 that they will be more comfortable alternating using the inside mallets (mallet numbers 2 and 3). Depending on their chosen rate of ritardando, however, they may find that they can even execute these thirty-second notes with just one hand.

All of the muffling in Variation No. II will have to be executed via the mallet heads, in which case the performer can simply press the mallets into the head exactly where they last struck them.147 With regard to muffling, in general, Williams says, “In all cases where I indicate that certain pitches are damped, it’s because I want the un-damped pitches to be the only ones sustaining.”148 With this in mind, the performer may wish to

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147 See Figures 26 and 27 in Chapter 1, as well as the corresponding description of mallet dampening technique also in that chapter.
148 Jan Williams, E-mail Interview by Naomi Joy Marcus, October 24, 2015.
practice this muffling technique to adequately cancel out any of the excessive ringing, eliminating additional contact noise.

Variation No. III is rather intuitive with regard to sticking choice. The performer will find that much of the movement may utilize a hand-to-hand alternating sticking, beginning with the right hand in measure 1. The music separates into two separate lines beginning in measure 13, the upward stems are played by the right hand and the downward stems are played by the left hand. To facilitate the rapid shift from the 23-inch timpano to the 32-inch timpano in measure 6, the performer should start each dotted quarter note sixteenth note grouping with the left hand (and then alternate after the first note). In the final measure of the movement (measure 44), the performer is instructed to muffle the F-flat and E-flat timpani immediately after being struck. Mallet dampening will not be sufficient in eliminating the resultant ring at the loud written dynamic and fast tempo. The performer will have to muffle these drums with their hands (see Figures 59, 60, and 61). The performer will likely have to practice this technique to ensure a full sound after the normal stroke, and the dampening of the excessive ring, rather than playing an audible note with their hands.
Figure 59 Mallet immediately after striking the drum in preparation for muffling
Variation No. III

Figure 60 Hand movement in preparation for muffling in Variation No. III
Similar to Variation No. III, Variation No. IV is highly idiomatic with regard to inherent sticking choices. The entire movement may utilize a hand-to-hand alternating sticking. In measure 1 through measure 7, measure 17 through measure 21, and measure 24 through measure 25 the performer might consider muffling each isolated sixteenth note in the following sixteenth note subdivision. The notated short duration of each of these notes serves as an indication to the performer that they should be muffled. The author recommends muffling each of these notes using the same hand that played them. If the first note of the piece is played with the right hand, the performer would muffle this note in the next sixteenth note rest using the right hand, etc. While this can potentially inhibit the overall sound production of each stroke, the rapid tempo and highly syncopated nature of these passages would make opposite hand muffling technique inefficient, and would require the performer to do awkward and unnecessary cross-sticking and/or double-sticking.

149 Jan Williams, E-mail Interview by Naomi Joy Marcus, October 24, 2015.
Similar to the other movements in this piece, *Variation No. V* provides opportunities whereby the performer can comfortably execute stickings that use a predominant hand-to-hand alternating sticking. The author of this document found great success using an alternating sticking for the recurring sixteenth note quintuplet (beginning on the right hand), but also recommends placing a double right hand sticking on the second and third partial (see Figure 62). This sticking eliminates any awkward shifting between the drums. Due to the relatively slow tempo, however, this may not pose an issue for performers.

Figure 62 *Variation No. V*, m. 3 beat 3, Score with written stickings
Chapter 4: *Raga No. 1* by William Cahn

BIOGRAPHY OF WILLIAM CAHN

As a performer, composer, teacher, and global musical ambassador, William (Bill) L. Cahn (b. 1946) has a legacy that continues to leave an indelible imprint on the percussion community. Born in Philadelphia, Pennsylvania, Cahn received his Bachelor of Music degree in Music Education with distinction and Performer’s Certificate in percussion from the Eastman School of Music in 1968, where he studied with William Street and John Beck.\(^\text{150}\) From 1968 until 1995, Cahn was the principal percussionist for the Rochester Philharmonic Orchestra. He also served as Chair of the Honorary Board of Directors, and continues to serve as a life time member of the Honorary Board.\(^\text{151}\) Since 2006, he has served as an Associate Professor of Percussion at the Eastman School of Music, in addition to his position as a visiting artist in residence at the Showa Academy of Music in Kawasaki, Japan.\(^\text{152}\) Cahn has also served as a guest faculty member at the


\(\text{152}\) Ibid.
Banff Centre for the Arts in Canada. He has received numerous awards, including the Rochester Philharmonic League’s Fanfare Award, Mu Phi Epsilon’s Musician of the Year Award (1993), and a Grammy Award for his participation in the Paul Winter Consort’s 2004 DVD, *2004 Solstice Concert.*

Along with Bob Becker, Russell Hartenberger, and Gary Kvistad, he is a member of the NEXUS percussion quintet, a group he co-founded and first performed with in 1971. The group has become one of the foremost groups of its kind in the world as both a professional percussion ensemble and as a contemporary music ensemble. NEXUS is known for a variety of contributions to contemporary music and contemporary percussion music, specifically with regard to their role in the revival of the novelty ragtime xylophone music of George Hamilton Green, their heavy use of free improvisation in both their live performances and studio recordings, and their collaborations and commissions with such composers as Steve Reich (*Mallet Quartet*, 2009), Toru Takemitsu (*From me flows what you call time...* for percussion quintet and orchestra, 1990), Ellen Taaffe Zwilich (*Rituals* for percussion quintet and chamber orchestra, 2005), amongst many others. NEXUS has toured all over the world throughout its forty years of existence, and has given concerts in Australia, South America, North America, Europe, and Asia. Of particular note is the fact that NEXUS was the first Western percussion group to perform in the People’s Republic of China. In 1999, NEXUS was inducted into the Percussive Art’s Society Hall of Fame. The group continues to tour and perform...

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throughout the world and they continue to present educational clinics and events in a variety of settings.¹⁵⁴

As a composer, Cahn has written dozens of works and arrangements for a variety of instrumentations, including solo percussion, chamber percussion ensemble, chamber ensemble featuring instruments other than percussion, and orchestra. Additionally, Cahn has written several books on a variety of musical topics, including *The Xylophone in Acoustic Recordings (1877-1929)*, which was first published in 1980 and was the result of a 10-year research project to locate and study early ragtime xylophone recordings.¹⁵⁵

As an advocate, teacher, and clinician of free improvisation in music education, Cahn has also written *Creative Music Making* (Routledge, 2005), a pedagogy for this form of improvisation that he frequently teaches in classes and clinics using the same title.¹⁵⁶

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**RAGA NO. 1**

*Raga No. 1* was written in 1968 and was first published by the composer’s own publishing company, William L. Cahn Publishing. It was later transferred to Wimbledon Music in 1978.¹⁵⁷ ¹⁵⁸ It is one of three solo pieces that Cahn has written that utilizes four

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timpani. His composition *Partita for Solo Percussion* is a three-movement suite for multiple percussion in which one movement is played on timpani. He also wrote a book of six timpani solos, *Six Concert Pieces For Solo Timpani*, which includes *Raga No. 2*.\(^{159}\) Cahn originally wrote *Raga No. 1* as a piece to be performed on his senior percussion recital at the Eastman School of Music. Cahn has cited the relative lack of timpani solos (“…and most of those were included at the back of timpani method books”\(^{160}\)) at the time as being his reason for writing a timpani solo, given that performing one was a requirement for this recital. *Raga No. 1* is featured on a CD recording of Cahn’s solo works titled, “The Solo Percussionist,” and it is performed on this recording by Ruth Cahn.\(^{161}\)

At the time that Cahn was writing this solo, he had recently been exposed for the first time to North Indian classical music for tabla drums, specifically a recording that featured the tabla player, Chatur Lal. *Tablā* are an asymmetrical pair of tuned drums that have origins in Northern and Central India, Pakistan and Bangladesh. The word *tabla* refers to the higher of the two *tablā* (also can be referred to as *dāyā*). The tabla is a

\(^{158}\) Cahn continues to publish and distribute *Raga No. 1* through William L. Cahn Publishing. Permission was granted from him personally to use materials from the score in this D.M.A. document.


cylindrical wooden drum that is played by the right hand. The lower, left hand tabla is the bāyā or duggī, and is a metal bowl-shaped drum\textsuperscript{162} that uses pitch-bending by way of hand and wrist pressure.\textsuperscript{163} Figure 63 incudes a photograph of standard tabla drums.

![Figure 63 Traditional Tabla drums](image)

Inspired by the rhythmic intricacy and energy of North Indian music, Cahn wrote \textit{Raga No. 1} with this idea in mind.\textsuperscript{164} It should be noted that Cahn has been very open about the fact that aside from the rhythmic energy of North Indian classical music, there are no other direct parallels to this genre of music in \textit{Raga No. 1}. The title of the piece is derived from the term, “Rāga,” which in Indian musical theory refers to a “melody-type

\textsuperscript{162} This type of drum can also be found with wood and ceramic constructions.


or mode that provides the melodic material for the composition of vocal or instrumental melodies and for improvisation.” The only other literal allusions to Northern Indian drumming are Cahn’s use of finger rolls on the high timpano as a way of acknowledging the highly advanced hand technique used by tabla players. The glissandos on the low timpano used in this work are meant to create an affect that imitates the bāyā and its vocal-like pitch bending via the increase and decrease of applied left-hand wrist pressure. See Figure 64 for an illustration of this pitch-bending technique, which is also known as ghe.

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Cahn acknowledges that aside from his recent exposure to North Indian music, he did not possess any further knowledge of the music that would be acquired as the result of the formal study of the music, therefore he purposely did not try to copy North Indian musical structures. In an e-mail response to a question about the North Indian classical music influence, Mr. Cahn said:

To be very clear, there were no direct technical or structural connections with any aspect of Indian classical music during the composing of Raga No. 1. The only connection was the intuitive effect produced on me after hearing Indian classical music, in the same sense that orchestral composers— Rimsky-Korsakov or Maurice Ravel— were inspired by hearing Spanish music. Their compositions perhaps sound more Russian and French than Spanish, even though they succeeded in capturing some Spanish flavor in their music.

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169 William Cahn, E-mail Interview by Naomi Joy Marcus, September 22, 2015.
The overall form of *Raga No. 1* can best be described as separated into five distinct sections, with a brief introduction at the beginning of the piece (measure 1 through measure 10). While certain rhythmic motives appear throughout each of the different sections, the audible change in character between each of the sections provides enough justification for referring to them as original material. Harmonically, only four pitches are used: G on the 32-inch drum, B-flat on the 29-inch drum, C-flat on the 26-inch drum, and G on the 23-inch drum. The use of octave G's gives the piece an overall sense that G is the prevailing tonic key in the piece.

The first section after the introduction is from measure 10 through measure 43, the second section is from measures 44 through measure 83, the third section is from measure 84 through measure 126, the fourth section is from measure 127 through measure 177, and the fifth and final section is from measure 178 through measure 213. Two spots within these sections can be analyzed as transitions between the sections, such as measure 44 through measure 48 between the first and second section and measure 119 through measure 126. The first transition occurs right after a *fermata*, bringing a sense of closure to the previous section. The material in measure 44 through measure 48, however, uses rhythmic material very similar to that which is found in the first section. The *mezzo-piano* dynamic in these measures— which eventually leads to a *sforzando-mezzo-piano* in measure 48 followed by a series of repeated, punctuated strokes in the center of the drum— creates a sense of building tension that would make the start of
measure 49 sound more like the true start of a new section. The second transition, between measure 119 and measure 126, is similar in its structure. The crescendo in the last two beats of measure 118 into the downbeat of measure 119 creates a sense of arrival, and the subsequent passage from the end of measure 119 through the downbeat of 126 is a prolonged diminuendo and rhythmic augmentation of the repeated high-G, again creating a sense of arrival on the finger tremolo that begins the new section at measure 127. See Table 3 for a formal outline of the piece.

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Table 3 Formal Outline of *Raga No. 1*

The piece has a common time signature and is given the tempo marking of Allegro. Aside from the switch to a half-time feel in the fourth section of the piece, this is the prevailing tempo throughout the work. When asked about tempo, William Cahn stated that he encourages students and performers who study this work to experiment with elements, such as tempo, so therefore, the actual metronomic tempo chosen for performance of this piece can be left to the discretion of the performer.\(^{170}\) The author of this document has chosen to perform this work somewhere in the range of the quarter note equaling between 144 and 152 beats per minute, as she feels this gives the overall

\(^{170}\) William Cahn, E-mail Interview by Naomi Joy Marcus, September 22, 2015.
work a sense of driving, rhythmic vitality, without causing any of the faster, more syncopated rhythms to sound frantic.

The introduction of this piece creates a somber mood and features some of the rhythmic motives that eventually will occur in other sections of the work. The very first note of the piece occurs with a fermata over the top of it, followed in this section by additional fermati in measure 2, measure 4, and measure 8. The measures between all of these fermati are marked a tempo. The alternation between held sustained notes and brief moments of a tempo creates a strong feeling of tension and release, as well as a sense of metric ambiguity. In some ways, this opening section sounds almost improvisatory, contrasting the rest of the work. This introductory section seems most effective when played in a highly gestural manner, giving visual length to some of the longer notes, contrasted with sharper, clearer attacks for the a tempo moments.

The rhythmic motives first seen in the introductory section that reappear throughout the work occur in measure 3 and measure 5 through measure 6 (see Figure 65 and 66).

Figure 65 Raga No. 1, m. 3, Score
The first motive reappears at the start of the first section in measure 10 in its original form, and elsewhere using different transformations. Similar to the overall rhythmic feel of the introductory section, this motive has a sense of rhythmic ambiguity due to it starting as a dotted note on the second beat of the measure. The lack of downbeat and subsequent syncopation gives a sense of a free-floating meter. For example, in the second section of the piece in measure 49, Cahn places this motive in the left hand underneath the repeated ostinato dead strokes in the right hand (see Figure 67). Cahn also outlines this motive with accents in the same section in measure 69.
In terms of functionality, this motive often serves as a forward push into a subsequent phrase. For example, the motive is used in measure 14 and measure 15 (now utilizing the 29-inch drum for the longer note values) leading towards the first occurrence of notes to be played in the center of the drums and double stops in the piece (see Figure 68). The motive later reappears in the third section of the piece in measure 105 and measure 106, again outlining an eventual change in rhythmic character and texture beginning in measure 107. While both of these motives are just two of many rhythmic fragments throughout the work, drawing attention to them seems fitting, as when they are brought out by the performer, they can aid in an overall sense of continuity to the piece as a whole.

![Figure 68](image)

Figure 68 *Raga No. 1*, mm. 14-16, Score

The rhythmic intensity and drive inherent in North Indian classical drumming is particularly apparent in the first section of the piece. In addition to the highly syncopated nature of this section, there are numerous instances of *subito* changes in dynamics, highlighting the somewhat punctuated and angular character of the chosen rhythms. Cahn also utilizes the center of the head as a playing spot to the normal playing spot that
is already being used. The dry, thuddy quality of this playing spot produces a much shorter, articulate sound, creating a more clearly defined rhythm, which Cahn characterizes as, in comparison with the resultant sound from the normal playing spot, "the most distinctive short sound, with minimal head ring." The result of the rapid switches between the normal playing spot and the center creates a contrast of moods between the sharp and aggressive and the long and subdued. An example of this rapid alternation between playing spots in the first section of the piece occurs in measure 30 through measure 35 (see Figure 69).

![Figure 69 Raga No. 1, mm. 30-35, Score](image)

The second section of the piece uses the separation of the hands to create a stable ostinato figure in the right hand— in the center playing spot of the 23-inch drum— while the left hand plays a melody using the 32- and 29-inch drums. This creates a contrast between the two hands of a more fluid, *legato* line atop a much more rigid, rhythmic passage, highlighted even more so by the differences in timbre between the two hands.

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171 William Cahn, E-mail Interview by Naomi Joy Marcus, September 22, 2015.
The melody itself is very similar to some of the ideas in the first section of the piece that are syncopated. Cahn also writes phrases that either extend over bar line (such as in measure 50 and measure 51), often beginning on off beats. He also incorporates the original rhythmic motif in measure 5 and measure 6 in the melody line in measure 52 and measure 53 (see Figure 70).

![Figure 70 Raga No 1, mm. 50-51, Score](image)

There is a sudden change in texture beginning in measure 60. The hands are no longer separated and there is one musical line. From this point until measure 75, Cahn makes more use of the normal playing spots than he previously had in this section. This is paired with the sudden crescendos and *subito forte* dynamics, and makes for a more bombastic sound, particularly when juxtaposed with the fluid, lyrical feel of the predominant left hand part in the previous measures. Cahn uses accents in this section to create more of a syncopated texture, as opposed to marking arrival points, such as in measure 67 through measure 71 (see Figure 71).
Cahn also introduces a new rhythmic motive that he utilizes twice in this section, and again in the final section of the piece. This motive first appears in the last beat of measure 61 through measure 64, and again from the last beat of measure 72 through measure 74 (see Figure 72).

The motive acts as an arrival point. The positioning of accents on the main beats of the first full measure provide a sense of rhythmic and metric stability previously that had remained unclear to the listener. The next full measure features accents that, when brought out by the performer, can provide a sense of forward propulsion towards the next phrase. In both instances, this figure begins on an upbeat and is a return to the previous,
more subdued material that is more rhythmically unclear in comparison. In other words, this particularly recurring motive is the hook for both the listener and the performer.

This portion finishes with a return to the separation of a right hand ostinato on the center playing spot of the 23-inch drum and a left hand melody on the 32- and 29-inch drums, followed by a fortissimo declaration on the 32- and 23-inch drums. The figure, beginning in measure 80, has marked accents under each note and a marked crescendo in measure 82, creating an arrival point at the octave chord in measure 83 and an effective end to the section. Because of the fermata on this final chord and the resulting long decay of the ringing drums (as a result of the loud dynamics), a long pause to allow the drums to completely decay is quite effective in the overall pacing of the performance.

The third section of the piece begins in measure 84. It is the first time that Cahn makes use of the 26-inch drum. This drum, tuned to a C-flat, creates a distinct half-step tonality with the 29-inch drum (tuned to a B-flat). This tonality, accompanied by the octave interval between the 32- and 23-inch drums, is the Rāga that Cahn refers to in his program note. These paired tonalities, along with the marked piano dynamic from measure 84 through measure 112 (save for a few marked crescendi with no marked final dynamic) create a drone-like quality, a sound that is a prominent feature of classical Northern Indian music.

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The basic motivic material of this section of the piece can best be described as repeated development of measures 84 through beat 2 of measure 86 (see Figure 73).

![Figure 73 Raga No. 1, mm. 84- beat 2 of m. 86, Score](image)

Here Cahn alternates between placing the accents in measure 84 on downbeats, later shifting them to the upbeats in measure 85. This phrase is symmetrical; there is an equal amount of eighth notes on either side of the dotted figure in the downbeat of measure 85. This creates a sense of rhythmic ambiguity as well as what Cahn describes as, “a sense of rhythmic energy.”\textsuperscript{175} Cahn then elaborates on this motive in subsequent measures using various compositional devices, such as elongating the phrase by adding beats of alternating eighth notes between the 29- and 26-inch drum (as evidenced in measure 86 through measure 88). He also incorporates the low-G into the rapid alternation of eighth notes in measure 89. Finally, Cahn prolongs the arrival on the high-G by adding quarter

\textsuperscript{174} The author of this document could not find information stating that this drone-like effect was intentional, and the composer did not allude to this in his responses to interview questions on the subject of classical Northern Indian music as an inspiration for this piece.

\textsuperscript{175} William Cahn, E-mail Interview by Naomi Joy Marcus, September 22, 2015.
rests on the preceding beat in measure 93 through measure 94, creating a sense of tension that adds to the overall sense of rhythmic disorientation due to the lack of a stable meter.

Cahn interrupts this softer, more subdued section with a reprise of some of the same motivic material used in the first and second section of the piece beginning in measure 112. Here, Cahn utilizes a faster, more frenetic texture with sixteenth notes. This passage is particularly driving, with heavy use of accents moving throughout the measure. Measure 116, in particular, is a fragment that reappears in the final section of the piece (see Figure 74). The arrival point occurs on the downbeat of measure 119, and as previously stated, the rest of the measure through measure 126 functions as a transitional passage.

![Figure 74 Raga No. 1, m. 116, Score](image)

The fourth section is musically more subdued than the rest of the piece (with the exception of the introduction), but because of the required pedaling and use of extended techniques, it is possibly the most technically difficult section. In measure 127, the tempo marking is now the half note equaling the half note. While this would imply that the tempo simply stays the same, Cahn has stated that, “At Bar 128 the half-note equals
the new half-note; the desired effect is to go from a fast four feel to a slow two feel."  

This section should audibly stand in stark stylistic contrast to the rest of the piece. The section starts with the introduction of a finger tremolo that the composer instructs is to be performed with the right hand on the high-G timpani.  

After this finger tremolo is established in measure 127, the left hand plays a melody using a timpani mallet on the remaining three pitches underneath this roll beginning in measure 128 through measure 145. Cahn makes some use of the center playing spot on the Low G, often at the ends of phrases, seen in measure 131 (see Figure 75). Cahn also introduces glissando technique in measure 134 and measure 139. In both instances, the glissando occurs on the high-G timpano, and requires the performer to pedal down to an approximate D a perfect fourth below, and then back up again to the G. The resulting effect of this is a completely different texture never before heard in this piece.

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177 Instructions for how to execute this technique and the rim shot (the subsequent extended technique introduced in this section of the piece) will be discussed in the “Performance Suggestions” section of this chapter.

178 The topic of pedaling technique as applied to this piece will be discussed further in the “Performance Suggestions” section of this chapter.
There is a sudden stylistic contrast in measure 145 and measure 146 when Cahn introduces another extended technique: the rim shot (see Figure 76). Cahn specifies that this be played similar to a bongo stroke, and when compared to the sound of both the finger tremolo and the mallet striking the drum, the sound is much brighter in quality. Cahn notates these similar to flams\(^{179}\) such that the rim shots are grace notes tied to notes played in the center playing spot of each drum. Each are marked with a *sforzando* dynamic indication, as well as accents. These dynamic markings, coupled with the more syncopated nature of this motive, causes this short two-measure fragment to serve as an interruption to the previously established slower mood. This figure is repeated in measure 176 and measure 177 as an introduction into the last section of the piece.

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\(^{179}\) A flam is a snare drum rudiment that is often adapted to be played on other percussion instruments. It consists of a grace note tied to a single accented note.
The piece returns to the slower half-time feel in measure 146. The left hand plays the low-G timpano, while the left foot maneuvers the pedal of this drum up and down to create a glissando effect between each of the struck notes. As previously mentioned, the use of glissando on this particular drum is a direct allusion to a similar sounding tabla technique. Cahn notates the direction that the performer should glissando in between each note, and the resulting sound should be portamento in quality; the listener should be able to hear the actual glissando between the pitches (see Figure 77). The notated pitches in the glissandos span an interval of a sixth, from F to D. Cahn says in the program note to the work, however, that the notated arrival pitches in this glissando section are only approximate, and the performer need not worry about arriving at the exact, notated pitches.¹⁸⁰

The melody is notated using different variations of motion. For example, in measure 151 and measure 155 Cahn writes ascending and descending stepwise motion, respectively, while in measure 159 he writes for a sudden jump of a sixth. This melody is not going to be readily heard by the listener. Instead they will hear the sound of the

resonance of the drum travelling between the notated approximate pitches. Cahn uses longer note values in the section for moments of greater leaps, such as in measure 153 and measure 154. After the initial striking of the note, there is a greater amount of time for that note to last, and therefore, a greater amount of time for which the performer can use that resulting space to glissando to an approximate pitch that may be farther away. Conversely, Cahn uses more stepwise motion and repeated notes where the note values are quarter notes and eighth notes, occurring in measure 160 and measure 161 for the opposite reason: changing a pitch in such a shorter amount of time, for example an eighth note, would yield little to no audible pitch-bending effect due to the natural lack of decay from the drums.

![Figure 77](image.png)

Figure 77 Raga No. 1, mm. 151-156, Score

There are brief moments of interruption in which both hands are either playing on the high-G timpano, or two hands are alternating between the high-G and low-G timpani. During these moments, the notes with upward facing stems are to be played with the right hand, while the notes with downward facing stems are to be played with the left hand mallet. It is critical that the performer is careful to observe this in these such measures,
as Cahn was very purposeful about which notes in the bar are to be played using what implement. For example, in measure 150, the figure is only to be played by the right hand, while in measure 157 and measure 158, the left hand plays on the high G timpani only in the central playing spot, while the right hand plays in the normal playing spot (not as a finger tremolo, rather as a hand-struck note). This creates a texture that utilizes rapid alternation between the two distinct timbres, reminiscent of the various sounds achieved by a tabla player, who would utilize several different stroke types in a given performance.

Cahn introduces a written *accelerando* marking in measure 167 and measure 174. While this does in fact imply that the performer should gradually increase speed, it should be noted that just before measure 178 there is a tempo marking of the half note equaling the quarter note, followed by a *Tempo I* marking on measure 178. This *accelerando* section can be treated as a metric modulation. The half note should speed up enough to become the quarter note pulse of the next section. It is recommended that the performer keep in mind the tempo relationship between the half note of the third section and the quarter note of the fourth and final section. The arrival at measure 178 and measure 179 should be instantly recognizable to the listener as the original starting tempo of the piece.

The final section combines many of the rhythmic ideas and timbres of the previous sections. Beginning in measure 180, Cahn again separates the hands so that the left hand is playing an ostinato pattern, while the right hand plays a melody and ornamentation. The score instructs the performer to strike the drums with the right hand using fingers (see Figure 78). It is important that the performer selects a different sound
for these moments as opposed to the rim shots, which also appear throughout this final section. This separation of hands continues through measure 192, and while the ostinato provides a stable subdivision, the right hand melody is rather free in terms of its metric placement.

Figure 78 Raga No. 1, mm. 180-181, Score

The right hand picks up a mallet again before the piece returns to a single musical line in measure 192. The dynamic has a *subito* change to *forte* and all four drums are being utilized in a broken texture. The piece features an aggressive buildup towards the *fermata* at the end of measure 197, with two marked *crescendos* aiding in this buildup in measure 196 and measure 197. There is no marked dynamic arrival point at this *fermata*. It is implied that the performer should lead to the *fermata* (on the upbeat of beat 4 in measure 197). After a *caesura*, the music resumes with soft, muted tones played in the center of the 29-inch drum in measure 198. After a *sforzando* octave chord on the high-G and low-G timpani on the upbeat of beat 1 in measure 199, the texture changes to rapid, alternating sixteenth-notes in the center of the low-G timpani; this is the prevailing subdivision for much of the remainder of the piece (see Figure 79). While both hands
alternate the constant sixteenth notes on the low-G timpano from measure 199 through measure 204, the right hand makes rapid shifts to the remaining three drums. These moments are often accented and played in the normal, resonant playing spot of each timpano. Because the low-G sixteenth notes are marked *pianissimo*, the effect of these rapid shifts to the other drums creates a sharp accentuation. Some of these notes are actually accented, while others are not, but by virtue of the fact that they are being played in the more resonant part of the drum and are adjacent to muted tones, much of the movement between the B-flat, C-flat, and high G is audible, creating a highly syncopated composite rhythm.

![Figure 79 Raga No. 1, mm. 200-201, Score](image)

The musical texture changes in measure 204 when the low-G sixteenth notes cease (they will now all be played in the normal playing spot and are marked accordingly), and a gradual *crescendo* begins in measure 205. The performer should continue this *crescendo* until the abrupt quarter rest in measure 209. The rhythmic motive first introduced in measure 116 is once again repeated in measure 206, and for the first time in the entire piece, triplet subdivisions are introduced in measure 207. Beats 2
and 4 of this measure are missing partials, causing the sudden shift in subdivision to disorient the listener. Measures 209 and 210 are a reprise of the rhythmic motive first seen in measure 5 and measure 6, this time placed on the low G, B-flat, and C-flat, using central playing spots for the last beats of each measure fragment.

The texture suddenly changes at measure 210 due to the subito piano, as well as Cahn’s use of chords played on the B-flat and C-flat and low G and high G, respectively (played in the center of each drum). Before a brief marked pause in the second to last measure of the piece, there is a quick sixteenth-note diminuendo flourish from the high-G down to the B-flat, followed by the final note of the piece: a pianissimo held low-G. This ending is very similar to how the entire piece started, giving a sense of roundness of form to the entire work.

PERFORMANCE SUGGESTIONS

When selecting mallets for Raga No. 1, the performer should take into consideration the wide range of dynamics in the piece, as well as the variety of required articulations. The performer will need a mallet that can execute some of the long, legato notes and phrases (such as the in the introductory and fourth section of the piece), as well as the syncopated, accented sixteenth-note motives (such as in the end of the third section of the piece). The author of this document recommends a mallet with a light core and handle and relatively thin felt covering. Specifically, she used the JG Percussion DH1
David Herbert “Mozart” timpani mallets. The light carbon fiber shaft provided a sense of agility at the drums, and the amount of felt covering provided a spectrum of dynamics and articulation. If a performer does not have such mallets, a similar mallet with either bamboo or carbon fiber shafts, with thin felt covering and a light core will suffice.

In addition to performing with standard timpani mallets, the performer is instructed to play with their right hand, specifically utilizing three different stroke types, each producing their own distinct sound. The first of these strokes is the finger roll beginning in measure 127. There are two ways in which the performer can execute this roll. The first would be a rapid alternation of all of the fingers (with the exception of the thumb). This movement is quite similar to four fingers executing a piano trill. The performer may also choose to rapidly alternate between the thumb and pinky so that the remaining three fingers also become engaged. This motion is initiated from a rotary motion in the wrist, and is quite similar to the independent roll\textsuperscript{181} motion utilized in four-mallet marimba playing (see Figures 80 and 81).

\textsuperscript{181} In four-mallet marimba playing, an independent roll is the term given to a roll being executed between two mallets that are being held in the same hand, as opposed to a roll being executed between the opposite hands.
The second hand stroke utilized in this piece is introduced in measure 145 and is indicated using the abbreviation “RS,” which is a form of shorthand notation for a rim shot. Cahn specifies at the bottom of the score that this stroke is like a bongo stroke.
Specifically, this stroke is executed by a rapid slapping motion of the middle part of the index finger nearest the rim of the timpano (specifically, where the lip of the timpano bowl meets the head). This stroke produces a high, bright tone that brings out the overtones of the timpano. The performer should only strike the drum with the index finger and no other fingers to execute this highly unique sound (see Figure 82). These rim shots are notated as grace notes tied to a quarter note played with the left hand mallet. It is recommended that the performer maintain some sort of balance and special separation between the two hands so that the rim shot is heard and not covered by the main note.

Figure 82 Rim-shot ("bongo stroke") used in Raga No. 1

The third hand stroke utilized in Raga No. 1 is introduced in measure 180. The score indicates that this stroke is to be played by the right hand fingers (see Figure 83). The performer should strike the drum using their four fingers not unlike how one would
produce an open tone on a hand drum (such as a conga drum). This will produce a warmer, lower tone than the rim shot stroke.

Figure 83 Finger stroke used in Raga No. 1

The performer may use a standard four-drum timpani set up for Raga No. 1. It is recommended that they place a music stand just to the right of the 23-inch timpano to serve as their stick tray. By placing the stand here, they will have quick and efficient access when placing their right hand mallet down in the fourth section of the piece. It is also recommended that the performer use two music stands for reading the score allowing all three pages to fit on the stand at once. It is noteworthy that some of the early printed versions of Raga No. 1 have the second and third pages reversed.\footnote{Bill Cahn, “Raga No. 1 for Solo Timpani—9 Questions—March 17, 2009,” The NEXUS Blog, NEXUS, March 17, 2009, accessed October 4, 2015, 142} The author of this
document found success both sitting down and standing while playing this piece. The performer may decide to do what is most comfortable for them.

Regarding the topic of sticking choices, Bill Cahn says, “Normally, I don’t have recommendations for sticking, because deciding on a sticking is one way in which a player can define her/his own individuality, which is something I want to encourage.”\textsuperscript{183} That being said, there are many sticking choices that the performer of \textit{Raga No. 1} may use that will result in a well executed and musical performance. Cahn also says, “Rather than have sticking decisions be restricted by a pedagogy, I’d rather have them serve an intuitive sense of line and phrasing.”\textsuperscript{184} Along these same lines, the performer will find that \textit{Raga No. 1} is highly idiomatic, as many percussion solos written by percussionists tend to be. Additionally, since several sections of the piece utilize multiple lines in which it is clear which hand is playing what line, as well as parts where a certain implement is specifically indicated, sticking choices in this piece are not as much the subject of debate as they might be in other timpani solos.

There are a few sections in \textit{Raga No. 1} that warrant some discussion of potential sticking choices. The first is the introduction to the piece. The simple, slow beginning statement (measure 1 through measure 10) can be played in two ways: either using a hand-to-hand alternating sticking, or a single hand sticking. The author of this document recommends playing all of the longer note values (quarter notes and larger) with one

\textsuperscript{183} William Cahn, E-mail Interview by Naomi Joy Marcus, September 19, 2015.
\textsuperscript{184} Ibid.
hand, and all eighth notes with the opposite hand.\textsuperscript{185} By restricting these longer note values to one hand, the sense of the long, somewhat unmetered opening figure is better preserved. This also creates a visual gesture in which the audience member can see the connection between these long notes (while hearing this connection).

There are several moments in which the performer will most likely have to incorporate cross-sticking or shifting\textsuperscript{186} into their normal sticking patterns. One instance is in measure 30 through measure 35 (see Figure 84). The syncopated accents and shifting between the normal and center playing spots require the performer to have a clear choice of sticking to achieve optimal sounds while preserving the written rhythms and dynamics. The provided sticking indicates where the performer would cross a mallet over the other by an “x” between the two notes in which the cross would take place, and an “s” between the two notes in which the shift would take place. In measure 34, it is recommended that in lieu of cross sticking, the performer shift from the 32-inch timpano to the 29-inch timpano between the upbeat of beat 1 and beat 2. This is because after the performer strikes the 29-inch timpano on beat 2 on the normal playing spot, they immediately have to play the upbeat of beat 2 in the center playing spot. Cross-sticking in this quick switch between drums could potentially lead to entanglement of mallets, as well as missing the desired playing spots. A rapid shifting motion will transfer the

\textsuperscript{185} Because the author’s dominant hand is the right, she decided to do the longer note values with the right hand, and the eighth notes with the left.

\textsuperscript{186} Cross-sticking is a technical method of playing the timpani in which one hand literally crosses over the other so as to eliminate unnecessary, rapid double-handed sticking between two drums. Shifting involves utilizing a quick lateral movement between two adjacent drums such that the hands and playing spots are literally shifted from one drum to another. These two techniques serve the same technical function.
mallets so that the left hand is prepared to play on the normal playing spot, while the right hand is prepared to play in the center playing spot. The distance of travel between the normal playing spot on the 32-inch timpani and the center of the 29-inch timpano is quite large in comparison with moving from one normal playing spot to another. This shifting motion eliminates some of the travel time for the hands.

Figure 84 Raga No. 1, mm. 30-34, Score with added stickings

The performer may find difficulty determining a sticking in the third section of the piece. This section—specifically, measure 84 through measure 104—is characterized by the soft, drone like quality that features a rapid alternation of the placement of accents between the downbeats and upbeats. Despite this uneven rhythmic texture, the overall affect should be a somewhat smooth musical line, emphasizing the now apparent half-step interval between the 29- and 26-inch timpani. Thus, the performer must be confident in their choice of sticking, enabling them to perform this section with as much fluidity of movement as possible. The author of this document found that by utilizing a sticking that was consistent while moving between the 32- and
29-inch timpani, allowing her to bring out the written accent with greater ease. This sticking also created a smooth sound as a result of the propulsion towards and off of the 32-inch timpano that creates a continuous underlying resonance, emphasizing the section’s drone-like quality. An example of how this sticking is used and manipulated in this section appears in measure 90 through measure 94. Here, in order to preserve the consistent double-hand sticking between the two lower timpani, there are moments when the performer will have to utilize cross-sticking. Cross-sticking in this section is advantageous because it aids in bringing out the written accents.

Instances where motion between the 32- and 29-inch timpani does not utilize the double handed sticking is employed to prevent from triple-sticking, which at particularly fast tempi can lead to rhythmic compression or ghosted notes. Cross-sticking and shifting can be very useful in emphasizing a particular musical phrasing or gesture, especially in timpani solos. The performer should always practice cross-sticking in context at slow tempos, gradually working up to the performance tempo, so as to be sure
of the exact physical movement. They must also preserve the proper stroke and playing spots within this cross-sticking gesture.

There are no moments in Raga No. 1 in which the composer requires the performer to muffle any notes. When asked about this, Cahn says:

In performance on timpani, making a decision about where to dampen is another way in which a player can define her/his own individuality. Generally, based on my student experiences on studying with Fred Hinger and hearing him perform with the Philadelphia Orchestra, my own preference is to allow the drums to ring as much as possible, unless there is a clear and audible musical reason (to me) to dampen…While I am aware that allowing the drums to ring as much as possible is not currently in vogue, I still try to avoid what I consider to be over dampening.\(^{187}\)

It is in this spirit that the author of this document recommends a performance that is virtually free of any muffling. The author, too, believes that dampening is largely dependent on context. This is a timpani solo, and not a part within a larger ensemble work, there is really no need to dampen any excessively ringing notes to prevent potential harmonic clashes with an orchestra. Factors such as the acoustics of the performance venue could potentially change this, but may be remedied by more attention being paid towards the articulate execution of the actual strokes. One spot that the author would recommend dampening, however, is in the second to last measure of the entire piece (measure 212). The performer might consider dampening the 23-, 26-, and 29-inch

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\(^{187}\) William Cahn, E-mail Interview by Naomi Joy Marcus, September 22, 2015.

\(^{188}\) Fred Hinger was the principal timpanist for both the Philadelphia Orchestra and the Metropolitan Opera Orchestra in the middle part of the 20\(^{th}\) century. In addition to being a highly lauded percussionist and pedagogue, he is particularly well regarded for his attention to the tone and color that he achieved when playing timpani.
timpani (in that order) in the quarter note rest *fermata*, just before striking the last note of the piece. By clearing the remaining pitches, there is more of a sense of finality by ending on one sole note, especially since it happens to be the low-G that loosely functions somewhat as the tonic of the entire piece.
Chapter 5: Prelude No. 3 by Christopher Deane

BIOGRAPHY OF CHRISTOPHER DEANE

Christopher Deane (b. 1957) is a percussionist, educator, and award-winning composer, with a wide range of experiences that cross many genres of music, from orchestral to chamber and contemporary to classical. Deane was born and raised in Winston-Salem, North Carolina, where his musical studies began early in childhood, initially in the form of piano lessons and then eventually percussion. After receiving some private drum lessons throughout his early upbringing, Deane enrolled in the North Carolina School of the Arts (NCSA; now known as The University of North Carolina School of the Arts, or UNCSA) during his senior year of high school, where he studied percussion with former St. Louis Symphony timpanist, James Massie Johnson, and composition with the Pulitzer-prize winning composer, Robert Ward.

Deane went on to receive his Bachelor of Music degree from NCSA (in addition to his high school diploma), where he continued his percussion studies with James

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190 Ibid., 9.
Massie Johnson. He also further broadened his composition studies through lessons with Charles Fussell and Sherwood Shaffer.\textsuperscript{191} It was during his undergraduate studies at NCSA that Deane first began working professionally as a percussionist, first with the Charlotte Symphony (North Carolina), and then following his graduation with the Winston-Salem and Salisbury Symphony Orchestras.\textsuperscript{192} He also pursued chamber music, performing frequently with the North Carolina Composer's Alliance Ensemble. His first steady position after graduation was as a percussionist with the North Carolina Visiting Artists Program. This program was a part of the larger North Carolina Arts Council and placed musicians from their roster at different community colleges throughout the state.\textsuperscript{193}

His next major appointment was as the faculty percussionist for the Bowdoin Summer Music Festival in Bowdoin, Maine from 1982 until 1989. It was during this time that Deane became very close with the prolific composer, George Crumb. He worked closely with the composer, serving as his personal percussion consultant for his works \textit{Idyll for the Misbegotten}, \textit{Quest}, and \textit{Haunted Landscapes}.\textsuperscript{194} In 1987, Dean began his graduate studies at the University of Cincinnati College-Conservatory of Music

\begin{footnotesize}
\begin{enumerate}
\item Ibid.\textsuperscript{191}
\item Ibid., 10.\textsuperscript{192}
\item Ibid.\textsuperscript{193}
\item “Christopher Deane,” accessed November 1, 2015, https://music.unt.edu/faculty-and-staff/christopher-deane.\textsuperscript{194}
\end{enumerate}
\end{footnotesize}
where he studied with Allan Otte of the Percussion Group Cincinnati, eventually going on to earn his Master of Music degree in percussion performance.\textsuperscript{195}

Throughout his early career, Deane was constantly working as an active freelance percussionist, first in his home state of North Carolina, and then elsewhere. Some of the ensembles that he has performed with include the Boston Pops, Cincinnati Symphony, Detroit Symphony, Minnesota Orchestra, Spoleto Festival Orchestra, Dallas Symphony, Ft. Worth Symphony and many others.\textsuperscript{196} He has also been featured on recordings by such ensembles as the Detroit Symphony, North Carolina Symphony, Cincinnati Philharmonia, and many others on which he may be heard performing as a timpanist, percussionist, and even a Hungarian cimbalom soloist.\textsuperscript{197} He also has constantly sought instruction independent of his degree programs, including with former New York Philharmonic timpanist, Roland Kohloff, and former New York City Opera timpanist, Leonard Schulman.\textsuperscript{198}

After graduating with his Master of Music degree in 1989, Deane would eventually win the Principal Timpani position with the Greensboro Symphony Orchestra in Greensboro, North Carolina, a position that he held from 1991 until 2000.\textsuperscript{199} During this time, he also performed frequently with the North Carolina Symphony Orchestra, the

\textsuperscript{195}David Malcom Wolf, “The Published Vibraphone Music of Christopher Deane: An Examination and Comparison of \textit{Mourning Dove Sonnet} and \textit{The Apocryphal Still Life}” (D.M.A. Document, The Ohio State University, 2008), 11.
\textsuperscript{197}Ibid.
\textsuperscript{198}Ibid.
\textsuperscript{199}David Malcom Wolf, “The Published Vibraphone Music of Christopher Deane: An Examination and Comparison of \textit{Mourning Dove Sonnet} and \textit{The Apocryphal Still Life}” (D.M.A. Document, The Ohio State University, 2008), 12.
Philador Percussion Group, and the Mallarme Chamber Players.\textsuperscript{200} He also assumed teaching positions at Campbell University in Buies Creek, North Carolina, East Carolina University in Greenville, North Carolina, and North Carolina State University in Raleigh, North Carolina. He taught percussion at all of these schools, and also taught composition and electronic music at Campbell University.\textsuperscript{201}

Since 2000, Deane has served as the Associate Professor of Percussion at the University of North Texas College of Music in Denton, Texas.\textsuperscript{202} There, he specializes in teaching orchestral timpani and keyboard percussion and directs the UNT Percussion Players percussion ensemble.\textsuperscript{203} Concurrently with his career at UNT, he is also the principal percussionist with the Las Colinas Symphony Orchestra and is the acting Principal Timpanist of the East Texas Symphony Orchestra.\textsuperscript{204} Additionally, he has frequently collaborated with the world-renown Dallas Wind Symphony, both in live performances and on five studio recordings.\textsuperscript{205}

As a composer, Deane has mainly written for the percussion idiom, receiving several commissions and winning the first and second prize in two separate Percussive Arts Society Composition contests, respectively; he won first prize in the 1982 contest for his marimba solo, \textit{Etude for a Quiet Hall}, and second prize in the 1992 contest for his

\begin{footnotes}
\item[200] Ibid.
\item[201] Ibid., 12.
\item[202] Ibid.
\item[204] Ibid.
\item[205] Ibid.
\end{footnotes}
marimba solo *Three Shells*. He has written another marimba solo entitled, *The Process of Invention* (1996), a marimba quartet entitled, *Vespertine Formations*, and two vibraphone solos, *Mourning Dove Sonnet* and *The Apocryphal Still Life*. In addition to *Prelude No. 3* for solo timpani, Deane also wrote *Prelude No. 1*; Deane has written, but has not published *Prelude No. 2*. In an interview with the composer, Dean has acknowledged that there is a *Prelude No. 4* that has been written, performed, and circulated, but has not been published. Deane has been commissioned by such groups as the Percussive Arts Society and such institutions as the University of Oklahoma and the University of Kentucky.

In general, Deane’s compositions are unique in their creative uses of sounds and textures, as well as their frequent usage of various extended techniques. In fact, Deane often uses extended techniques, either by scoring non-conventional playing implements and/or instrument playing areas, as a way to achieve sounds that would otherwise be unknown to the composer, performer, or listener. Of his compositional process, Deane says:

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208 Ibid.
209 The score for *Prelude No. 2* no longer exists after it was premiered in Deane’s master’s degree recital. For more information on this lost piece, please see Appendix C for Deane’s account of this piece’s history and eventual destruction.
210 Christopher Deane, telephone interview with the author, December 5, 2015.
I try to avoid obvious cultural references. If one breaks in here or there, it’s not usually conscious, and because it makes composers kind of obligated to do something. If I’m writing a blues scale, for example, I’m sort of obligated to stick with it, to some extent, because otherwise it kind of wants to go places that people want it to go, so in a lot of pieces that I’ve written have been in the avoidance of obvious references because I think it kind of limits the creative act, and the creative act is one of discovery, you know? It’s a daunting thing, but I think the greats were always able to do it, so I have to, as well. Whether or not I achieve it, I still want to sort of emulate that.  

PRELUDE NO. 3

Prelude No. 3 was written in 1994 for the principal timpanist of the North Carolina Symphony, John Feddersen. The piece is inspired by West African djembe rhythms, which was of great interest to Mr. Feddersen. In the program note to the piece, Deane writes:

John was and continues to be very interested in West African djembe. I have honored those interests by integrating West African instruments into the instrumentation. The piece also contains rhythmic ideas inspired by, but not derived from, West African drumming traditions.

It should be noted that Deane has been very clear that the work is only inspired by West African rhythms, and that it does not attempt to copy or replicate any specific

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212 Christopher Deane, Telephone Interview by Naomi Joy Marcus, December 5, 2015.  
215 Ibid.
examples of this music. When writing the piece, he consulted with Fedderson on the kinds of traditional West African music that he was primarily interested in, and as a result listened mostly to examples of Malian drumming ensembles as a reference when writing this piece.\textsuperscript{216} This is in keeping with his previously described compositional philosophy of not utilizing any overt cultural references, but Deane acknowledges that if someone were to find any specific references to West African music, than these inclusions were purely coincidental.\textsuperscript{217} Of some of the more specific ideas used in this piece, Deane says:

Now the idea of the antiphonality, the solo parts, and the general form of ensembles and soloing, I was inspired by that, and I was incorporating that, and having an opening solo— which really would’ve been a djembe solo in the beginning, looking at the printing of it—these little improvisational things were just similar to what is done in a traditional Malian ensemble. But, I don’t know that you’re going to find any absolute direct rhythms from West Africa, rather than just the general framework.\textsuperscript{218}

Generally speaking, the most commonly used instruments in traditional Malian music are drums. While there are many different varieties of drums within this culture, the three most common are the djembe, djun-djun, and tama.\textsuperscript{219} The tama is a general term that is applied to different double-headed hourglass shaped drums that are found in this region of West Africa. The djun-djun, which is directly referenced as an instrument in \textit{Prelude No. 3}, is a large, double-headed bass drum, and can also be found in other

\textsuperscript{216}Christopher Deane, Telephone Interview by Naomi Joy Marcus, December 5, 2015.
\textsuperscript{217}Ibid.
\textsuperscript{218}Ibid.
West African musical cultures.\textsuperscript{220} The djembe, which is not specifically used in \textit{Prelude No. 3} but is alluded to via Deane’s compositional devices on the timpani, is a single-headed drum with a goblet shape. In traditional Malian drumming ensembles, there will typically be one lead djembe player, two accompanying djembes, and anywhere from one to three djun-djuns of varying sizes.\textsuperscript{221} Musically, the emphasis in these ensembles is on one soloist at a time, which can be transferred to different members of the ensemble throughout a given performance.\textsuperscript{222}

While the piece was premiered and primarily written in the year of 1994, the piece remained unpublished for several years. After Fedderson premiered the work at the 1994 North Carolina Day of Percussion at East Carolina University, Deane says that the piece more or less “sat on a shelf” for several years.\textsuperscript{223} Deane was aware that a manuscript copy of this work was circulating amongst percussionists around the area, and credits a performance of the work by Dr. Kristopher Keeton as part of a Focus Day event at the 2007 Percussive Arts Society International Convention as reigniting his interest in the piece, such that he decided to finally publish the work.\textsuperscript{224} The work is now distributed by Innovative Percussion.

\textsuperscript{220} Ibid.
\textsuperscript{223} Christopher Deane, Telephone Interview by Naomi Joy Marcus, December 5, 2015.
\textsuperscript{224} Ibid.
This solo is unique amongst timpani solos. In addition to the standard set of four timpani, the performer must also include in this set-up a gongkagui, a songba, and a djundjun.\textsuperscript{225} In addition to the djun-djun the gongkagui and songba are also traditional West African instruments. Djun-djuns can range in three sizes from largest to smallest: djun-djun, songba, and kenkeni. In a traditional ensemble, the djun-djuns provide a melodic function.\textsuperscript{226} The gongkagui is an instrument that is associated with the West African country of Ghana and that culture’s tradition of Ewe drumming. This instrument is a hand-made iron bell that consists of two bells: one high-pitched, and one lower-pitched. In a traditional ensemble, this instrument provides a cyclical rhythmic ostinato.\textsuperscript{227} All of these instruments fulfill their ensemble roles within the context of Prelude No.3. While this piece does not specifically score for a djembe, it can be inferred that the timpani take on the soloistic role of the djembe, as this is the feature instrument of the work.

Deane specifies in the performance notes to the piece that, should these traditional instruments not be available to the performer, then they may substitute them for a cowbell, a small tom-tom, and a kick bass drum, respectively. The addition of extra instruments into the timpani set-up presents new challenges to the performer, which will all be discussed in the “Performance Suggestions” section of this chapter. Musically, they add an entirely new palate of colors and timbres to the traditional timpani sound.

\textsuperscript{225} The author of this document found that there are various ways of spelling these instrument names. For ease of interpretation and continuity, they will be referred to using the spellings that are used in the score to Prelude No. 3.


At the time that this document was being written, there is no known professional recording of *Prelude No. 3*.

**ANALYSIS**

The form of *Prelude No. 3* can be analyzed in four or five sections. The reason that it can be one of these two numbers is because the piece can begin with an optional improvised cadenza. If the performer chooses to play this cadenza, then this becomes the first section of the piece. Measure 1 through measure 11 is the first section of the piece, which will be termed as the “Introduction.” After a brief transition from measure 12 to measure 14, the second section of the piece is measure 15 through measure 53. This section will be referred to as the “A” section, because it is the first lengthy section of the entire work and because certain motivic material in this section will reappear later on in the piece. A longer transition occurs between measure 54 through measure 74, which is followed by the “B” section. The “B” section, encompassing measure 15 to 140, functions as a developmental section. This is followed by an improvised cadenza in measure 141, which is then followed by the final section, occurring between measure 142 through measure 168. This section functions as a coda to the entire work. Table 4 outlines this form and includes transitional moments.
Should the performer choose to perform the introductory optional cadenza, it should be noted that this is to be played exclusively on the African instruments. The program notes say, “This introductory statement should be improvised, low-key ‘warm-up’ type sounds and short rhythm fragments; nothing too fast, no timpani.” The effect of this optional cadenza creates an atmosphere for the audience, and to introduce the unusual sounds that would otherwise not be expected of a timpani solo. The written cadenza that will occur later on will provide the performer with more of an opportunity to expand upon more soloistic ideas.

The tempo marking of the piece is the dotted quarter note equaling 120 to 130 beats per minute, accompanied by the tempo direction, “Aggressive.” Much of the piece is written in compound meter, specifically the time signature of 12/8.

After the optional cadenza, the piece begins with an introductory section played only on the African instruments. In traditional West African music the gongkagui provides the rhythmic backbone, and Deane assigns a similar role to this instrument in Prelude No. 3. In measure 2 through measure 5 (and again in measure 7 through measure 11), the gongkagui rhythm is written in a compound duple meter, alternating between a

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Table 4 Prelude No. 3, formal outline

<table>
<thead>
<tr>
<th>Optional Cadenza</th>
<th>Introduction</th>
<th>Transition</th>
<th>A Section</th>
<th>Transition</th>
<th>B Section</th>
<th>Cadenza</th>
<th>Coda</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>mm. 1-11</td>
<td>mm. 12-14</td>
<td>mm. 15-53</td>
<td>mm. 54-74</td>
<td>mm. 75-140</td>
<td>m. 140</td>
<td>mm. 142-168</td>
</tr>
</tbody>
</table>

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228 Ibid.  
229 Ibid.  

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3/4 meter in the first two big beats of the measure, and 6/8 meter in the second two big beats of the measure. Meanwhile, the songba part outlines the eighth note subdivisions in the form of a two measure phrase that repeats. Finally, the performer emphasizes the downbeats of every measure on the djun-djun, as well as upbeats on the last partials of the last eighth note grouping and the last two eighth note groupings (alternating this sequence in each measure) as a way of creating momentum and emphasizing the compound meter. Measure 6 is an interruption to this established groove, punctuated by dead strokes on the songba and a steady compound cross-rhythmic figure in the gonkagui and songba parts (see Figure 86).

In general, each of the respective African instrument parts do not follow any sort of repeating pattern as they are constantly stable throughout the piece. While they may sound like (especially from the audience perspective) they are playing the same repetitive pattern, the parts are subtly altered and manipulated in each measure. This would mean that this part is not a true traditional bell pattern. This relates back to the idea that this piece is only inspired my West African rhythms, and does not attempt to literally copy any of them. In fact, Deane acknowledges the “irregularity of the bell pattern” as being a specific example of how this piece does not directly quote any traditional African music.\(^{230}\) The elaborating and discreet changes to the seemingly “stable” African instrument parts has a very improvisatory feel to it, which stylistically seems appropriate.

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\(^{230}\) Christopher Deane, Telephone Interview by Naomi Joy Marcus, December 5, 2015.
The timpani are introduced in the first transitional section. The figures written for this instrument are quite reminiscent of traditional djembe playing. After a brief interjection by the African instruments in the first beat of measure 12, the performer plays a phrase on the high-G timpani that utilizes both the normal and center playing spots of the drum. This is very evocative of djembe playing because players of this instrument commonly utilize these different playing spots in the same way. Typically, the center of the djembe is played so that the performer may get a low bass tone, while the edge gives a higher, more resonant sound. The center and normal playing spots on timpani also produce similar sounds. The center has the least amount of resonance, but the most fundamental, while the normal spot has a more balanced blend of fundamental tone and characteristic timpani resonance. The resultant sound from maneuvering between these different playing spots creates two distinct timbres that accentuate the rhythmic energy and phrasing, implied in a duple figure (see Figure 87).

231 Performers will often utilize a “slap” stroke that emphasizes this higher timbre.
The timpani and African instruments parts become more intertwined with one another in measure 15. Here, a stable rhythmic pattern is played on the African instruments (similar to the material that begins the entire piece), while a melodic figure is played on the timpani. Deane marks this section as *poco legato sempre*, further emphasizing the melodic role that the timpani have in this instrumentation, in addition to slur markings beneath figures. It is at this point that balance becomes a major concern to the performer. One must strive to create an equal balance of sound between the African instruments and the timpani. At this point, the timpani are meant to stand out. The performer must take special care to play the African instruments (particularly the metal gongkagui) at a significantly lower dynamic than the previous section in which they were the only voices.

Similar to the opening material of the piece, the African instruments play pattern like phrases in the opening measures of this section (measure 15 through measure 21). In general, the gongkagui part continues to emphasize an alternation between a 3/4 meter and a 6/8 meter, with the exception of a brief interjection in measure 17, in which it now emphasizes the 12/8 meter by only sounding the first two partials of each dotted quarter.
note grouping in the measure. The songba part is very improvisatory in character. It
does not play any strict pattern or emphasize any particular meter or note grouping. The
djun-djun part provides a stable dotted quarter note pulse throughout these measures.

The *legato* timpani melody in measure 15 through measure 20 provides a
rhythmic contrast to the broken lines of the African instruments. While those
instruments, as a unit, provide more of the underlying eighth note subdivisions, and
therefore, seem to exist more in the 12/8 meter, the timpani line progresses at a slower
pace and creates a polyrhythm between the two lines.

A first repeated section occurs at measure 22, which, much like measure 12
through measure 14, functions as a transition into the repeat of the previous measures.
Here, Deane utilizes the high-G timpano much like a djembe. The performer must
rapidly switch between the two playing spots. We also see a more obvious juxtaposition
of rhythms and meters in measure 23 via the notated quadruple sixteenths note groupings
(see Figure 88). This modulation back and forth between sixteenths notes in compound
and duple meters, respectively, creates a sense that the time is stretching.
Characteristically, this rhythmic interplay is very reminiscent of the kind of soloistic
playing that would occur in West African drumming. Beyond the basic pulse (which
here is provided by the djun-djun part), the soloist can freely float over the top of this
meter.
After a repeat of measure 15 through measure 21 and a brief transition in measure 25, rest of the section utilizes a call and response form. Deane alternates between rhythmic ideas such as that seen in measure 27 (the “response”), in which the African instruments and timpani are one instrumental unit emphasizing the 12/8 subdivision. In measure 28 (the “call”) the performer plays more soloistic “djembe-like” ideas on the high-G timpani with a steady dotted quarter note pulse provided by the djun-djun (see Figure 89). This is very suggestive of traditional West African music. Often there is a soloist that gives cues to the rest of the ensemble, answered by unified ensemble phrases.

Given that the role of the 23-inch timpano in this section of the piece is meant to mimic a djembe soloist, it seems fitting that this be the “call,” while the larger instrumentation of the other timpani and African instruments resembles more of an ensemble, or “response.”

This call and response section takes place within the larger “A” section in measure 26 through measure 53. This new formal approach creates a sense of building tension and subsequent release, as well as a more uncertain sense of meter. The high-G timpano parts typically contrast with the calls by incorporating quadruple figures, sixteenth note triplets, and accents that occur on odd subdivisions. Additionally, Deane
varies the length of each respective call and response. For example, the opening call and response in measure 26 through measure 28 is a two measure response (to the “call” played briefly at the end of measure 25) and another one measure call appears in measure 28, which is followed by a one measure response (measure 29). In addition to varying the lengths of the different calls and responses, Deane also displaces the initiation of them at different points in measures. Some calls occur in the middle of a measure, thus displacing the implied meter and interrupting the already occurring response. An example of this occurs in measure 45 through measure 48 (see Figure 9).

Figure 89 Prelude No. 3, mm. 27-28, Score

Figure 90 Prelude No. 3, mm. 41-51, Score
A recurring motive that occurs in many of the responses in this section is first found in measure 26 (see Figure 91). Despite the fact the timpani and African instrument parts are more interlocked with one another, they are all unified to create one line. Within this line, the placement of accents emphasize the larger half note feel of the measure, which could be thought of as a 3/2 meter. This is just another example of how Deane emphasizes the various different metric feels that West African music can possess.

![Figure 91, Prelude No. 3, m. 26, Score](image)

The transitional section that takes place from measure 54 through measure 74 begins with an ostinato pattern on the low-G and B-flat timpani, while quadruple sixteenth-note interjections are written on the B-flat, D-, and high-G timpani. The gongkagui part occurs sporadically. The low timpano ostinato part stays the same from measure 54 through measure 66 and alternates between implied duple (3/4 time signature) and compound (6/8 time signature) in each measure. Deane starts this ostinato on an offbeat, however (the second partial of the first dotted quarter note grouping of the measure), so the sense of time is disorienting, exacerbated by the frequent oddly placed quadruple sixteenth note groupings. When these interjections occur, the performer
cannot continue playing the ostinato underneath it (both hands are needed to play the quadruple sixteenth notes), but after the interjection occurs, the ostinato picks up exactly where it would have left off in the measure, as seen in measure 54 through measure 57 (see Figure 92).

![Midi](image)

**Figure 92 Prelude No. 3, mm. 54-57, score**

In measure 60, the performer is instructed to switch out the right hand wooden mallet to a softer mallet. While the left hand continues the original ostinato of this section, the right hand simultaneously plays a different ostinato. Both ostinati fill out an entire 12/8 time signature measure. Whereas the left hand ostinato starts on the first beat of every measure, the right hand ostinato begins on the third beat of each measure. The left hand ostinato continues over each bar line (see Figure 93). This is evidenced by the slur marking underneath the figure that indicate the entire length of the phrase. The result is two distinct lines occurring at the same time displaced by two beats. This effect creates a distinctive rhythmic friction, emphasized by the two different timbres being

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[^232]: Suggestions for how to execute this quick mallet switch will be discussed in the “Performance Suggestions” section of this chapter.
achieved by the wooden mallet in the left hand, and the soft felt mallet in the right hand.

When the left hand ostinato ends in measure 65, however, the right hand ostinato passes off to the left hand. The left hand then switches to a felt mallet so that it can play this figure beginning in measure 66.

![Figure 93 Prelude No. 3, mm. 60-65, Score](image)

The right hand now plays a melodic figure over the left hand ostinato beginning in measure 67 with a wooden mallet. Interestingly, the material written in the right hand in measure 67 through measure 72 is the same rhythmic material as what was written for the timpani in the beginning of the “A” section in measure 15 through measure 19. The difference now, however, is that Deane incorporates the outermost timpani (the low- and high- Gs), as well as some pedaling technique. By way of the pedaling, new pitches previously utilized in this piece, specifically the C natural, which is to be played on the 26-inch timpani in measure 69, and the E-flat, which is to be played also on the 26-inch timpani in measure 72, are introduced. The performer is instructed to have the C-natural already tuned by measure 69, immediately after striking this pitch, they are to glissando
up to the D natural in the space of an eighth note rest (see Figure 94).\textsuperscript{233} There is a performance note given above this note that states, “gliss into pitch without striking arrival note.”\textsuperscript{234} This glissando creates a pitch-bending affect that is quite similar to the kind of pitch-bending that would be performed on an African talking drum.

![Figure 94 Prelude No. 3, mm. 69-71, Score](image)

The “B” section can be analyzed as a development section because of its use of previous rhythmic material that is expanded both rhythmically and harmonically. Texturally, this section is also the only larger part of the work that is executed with two soft felt mallets, which makes it aurally stand apart from the more aggressive sections by way of its warmer sounding quality. Additionally, the section also begins with the expression marking, “Lyrically.”

\textsuperscript{233} Suggestions for executing glissandi and other issues concerning timpani pedaling will be discussed in the “Performance Suggestions” section of this chapter.

The main motive of this section is first seen in measure 77 through measure 80 (see Figure 95). The melody incorporates additional pitches to be pedaled on the 26-inch timpano: E-flat, C, and F.

Figure 95 Prelude No. 3, mm. 77-80, Score

After a brief compound ostinato in measure 82 through measure 86 that incorporates some light use of the African instruments, the melody in these opening measures is expanded on in measure 87 through measure 97. Deane does this by elongating phrases, for example by repeating a one beat motive in measure 94, and adding material to the melody in measure 90 (see Figures 96 and 97).

Figure 96, Prelude No. 3, m. 94, Score
In measure 75 through measure 97 the performer incorporates some of the similar glissando techniques that were previously used in the preceding section of the piece. This, when combined with the overall lyrical style, provides a contrast to the more rhythmic, aggressive nature of the “A” section. Additionally, the emphasis on the timpani as the main feature of this section also provides a more expressive atmosphere. This is due to the fact that the timpani are now allowed to resonate more freely, and are not covered up as much by the sharper, more fast-responding timbres of the African instruments.

A compound odd meter section begins in measure 98 and continues throughout the remainder of the “B” section. This sub-section features a four measure motive written in a 5/8 time signature that is repeated throughout (see Figure 98). This motive requires that the performer execute very fast pitch changes on the 26-inch timpano, resulting in the melodic line of the phrase spanning a minor third, beginning on a D-natural, then up a half-step to E-flat, followed by a whole-step up to F-natural, and then down to finish the phrase again on a D-natural. Because the performer is supposed to arrive at these notes simultaneously as they strike the timpano, the effect is to create an unbroken melodic line, as opposed to pitch-bending. The rhythmic feel of this line
should emphasize the alternation between the organization of the measure as a two plus three feel and a three plus two feel. This is evidenced by the beaming of notes, as well as the placement of accents in the second and fourth measure of the four measure motive. After the *forte* arrival at this four measure motive in measure 98, there is a gradual terraced *diminuendo* over the course of six measures until the music returns to *mezzo-forte* in measure 106. Overall, the dynamic fluctuation in this section of the piece accentuates the improvisatory, soloistic tone.

![Figure 98, Prelude No. 3, mm. 98-101, Score](image)

This new melody is developed and expanded upon in measure 107 through measure 123. This is accomplished by way of added transitional measures, for example in measure 107 through measure 108 and measure 115 through measure 116 (see Figures 99 and 100). These measures are written in a 9/8 time signature and a 6/8 time signature and create a larger build-up of tension leading into the return of the previous four measure motive. Throughout this section Deane is very clear with dynamic choice, as some of the more accented measures have louder dynamic markings, while measures with fewer accents and slur markings are composed at a softer dynamic.
There is a sense of arrival that occurs in measure 122. After a statement of the four measure motive that occurs just before this moment, the music begins to decay until the last measure of the “B” section (measure 140). This is accomplished by the gradual decrescendo that begins in measure 125, which features motivic material from the original 5/8 time signature motive that is stated, but not completed. For example, in measure 124 and measure 128, the downbeat arrival note on the second measure of the motive is a glissando effect from C to D on the 26-inch timpano, and in measure 130 through measure 131 and measure 133 through measure 135, there are prolonged half cadences on the dominant D (according to the originally tuned pitches for the entire work), before a final arrival on low-G in measure 132 and finally measure 136 (see Figure 101). Measure 136 through measure 140 brings a close to the “B” section. A very brief 12/8 time signature pattern is played in completion on the low-G and B-flat timpani
in measure 136 through measure 137, and very briefly in the beginning of measure 138. The African instruments are played throughout this final ending as well, as the music is meant to reach a sense of finality, only to be interrupted by the sudden fortissimo cadenza in measure 141.

Figure 101 Prelude No. 3, mm. 133-135, Score

There are notes in the score above the cadenza that require the performer to utilize “various Djembe-like rhythms on the 23” inch drum” and that “Irregular rhythm and silence is desirable.”235 The “djembe-like rhythmic” figures are notated as a whole note or separated eighth notes on the high-G followed by a trill marking. This notation appears three times, each instance being separated by fermati and a unison strike of the D-timpano and the gongkagui (see Figure 102). The performer is instructed to “Build a longer solo” before a breath mark before the final striking of the D-timpano and gongkagui before the cadenza ends.236

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236 Ibid.
Because the cadenza is free and improvised, the performer should feel unconstrained by previously used rhythmic and motivic material from the piece, and instead use this as an opportunity to play more original material. As suggested by the performance note, however, what is played should be indicative of West African music, but specifically ideas and/or patterns that would be typically performed on djembe. It would behoove the performer to listen to examples of traditional djembe playing when studying this piece, so that they may perform an improvised solo that is stylistically appropriate. This cadenza is an opportunity for the performer to create a sense of space and freedom of meter, as well as to create a sense of intensification leading towards the coda.

The coda to the piece begins in measure 142. Measure 142 through measure 148 are similar to the cadenza in terms of structure. Deane incorporates written soloistic figures on the high-G timpano (utilizing the two different playing spots, and thus implying the “djembe-like” feel), which are interrupted by unison D-timpano and gongkagui in measure 142, measure 144, as well as a prolonged build-up in measure 147 and measure 148. This escalation leads to a return of the motivic material—first seen in

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237 Resources for ideas and specific examples of potential cadenza ideas will be presented in the “Performance Suggestions” section of this chapter.

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the beginning of the piece in measure 15 in the “A” section—in measure 149 through measure 158. This recapitulation of motivic material precedes a final drive to the end beginning in measure 159. Measure 159 through measure 161 has a stable pattern on the gongkagui, a steady pulse on all four dotted quarter notes in the 12/8 time signature measure on the djun-djun, and a constant rhythmic figure played on the low-G- and B-flat-timpani that fills out the gongkagui pattern (see Figure 103).

![Figure 103 Prelude No. 3, m. 159, Score](image)

The material that takes place in measure 159 through measure 161 is repeated three times with three differend endings. Each of these endings is one measure longer than the last, resulting in an intensification of musical tension. Each ending features unisons in the gongkagui and songbon parts while the djun-djun sporadically punctuates this, creating a highly syncopated individual line. The first and second endings are written with a mezzo-piano dynamic marking. This subito lowering of dynamic without a written crescendo creates an even more heightened sense of suspense, only to be interrupted by a return to the fortissimo material presented in measure 159 through measure 161. The third ending has a written crescendo, as well as the reintroduction of
the D-timpano in the penultimate measure of the piece. In this measure, the rhythmic emphasis is on the two-note groupings (the last two partials of each dotted quarter note grouping in the measure), which builds into a final fortissimo unison between the gongkagui, djun-djun, and D-, high-G-, and low-G-timpani.

PERFORMANCE SUGGESTIONS

Mallet choice for Prelude No. 3 is fairly straightforward given the specific instructions by Deane in the score. The performer is to use wooden timpani mallets for much of the piece, and is instructed to switch to soft felt mallets in measure 60 through measure 140. Any standard wooden timpani mallets will suffice. The author of this document used Vic Firth American Custom Timpani T5 wooden mallets. With regard to choosing a soft mallet for the “B” section, the player should select a mallet that will provide a warm tone for the lyrical phrasing. Given the context, the performer need not worry too much about selecting a mallet that will achieve clear, punctuated articulation. This section is meant to be a contrast with the rest of the piece, and the emphasis here is on the longer, melodic line. The author used the Vic Firth Tim Genis GEN1 (Roller) timpani mallets. These mallets have a relatively heavy head, as well as a thick felt wrapping. This provided a round sound that aided in creating a blend between the notes on the different drums, and therefore connection between the notes. A similar mallet to this will suffice should these not be available to the performer.
*Prelude No. 3* is a unique timpani solo because it is scored for instruments other than timpani that are to be included in the standard, four-drum timpani set-up. Therefore, this is an added concern to the performer. They must ensure that the instruments are set up in a way that will allow for efficient and unobstructed movement around and between the different instruments. Deane provides a suggested set-up for these instruments in a diagram included in the score’s program notes. The author of this document initially followed this diagram when creating her set-up for this piece (see Figure 104).

When setting up this piece for performance, it is recommended that the performer arrange it so that the front of the kick bass drum or djun-djun is facing the audience (see Figure 105). This allows this particular instrument to project more clearly towards the audience (otherwise it can be covered up by the resonance of the timpani), and the audience may see a profile view of the performer, and therefore, the interplay between the timpani and the African instruments.\(^\text{238}\)

\(^{238}\) The author of this document had to utilize two music stands when performing this piece, therefore orienting the set-up in this way prevented any obstruction from the music stands that would result in a front view of the timpani.
Figure 104 *Prelude No. 3* Instrument Set-up

Figure 105 *Prelude No. 3* Set-up, audience perspective
For playing either a kick drum or djun-djun, it is recommended that performers of this piece utilize a double-bass drum pedal. This will allow them to place the kick drum or djun-djun on the outside of the timpani set-up, enabling them to place the double-bass drum pedal attachment directly over the pedal of the 23-inch timpano, positioning the pedal used to control the kick drum is centered between the 26- and 23- inch timpani pedals (see Figure 107). By placing the pedal in this spot, the performer will eliminate any awkward stretching of their leg so that they can reach the pedal. This particular placement can only be achieved by using a double-bass drum pedal. The author of this document recommends placing rugs underneath both the kick drum and both of the pedals so that these do not slide away during performance.
Figure 107 Double-bass drum pedal set-up for *Prelude No. 3*

In lieu of a songba, a 10-inch concert tom-tom suspended above and between the 32- and 29-inch timpani on a concert tom stand. The tom-tom can be tilted so that the left hand can maintain a similar angle of stroke as they would use on timpani when striking this drum. The only difference when between striking the tom-tom and the timpani, however, would be slightly elevating the arm above the timpani to reach this drum. This motion is similar to the arm motion used when playing ride-cymbal at a drum set. Therefore, the tom-tom should be positioned low enough so that the performer would not have to do any awkward upward reaching motion, but high enough so that the tom tom is not touching the timpani head.

In lieu of a gonkagui the performer may use a large cowbell mounted on a cymbal stand with a boom attachment. By using this kind of cymbal stand, the performer will be able to position the cowbell between the 26- and 23-inch timpani without having any
bulky cymbal stand legs interfere with the timpani set-up. While striving for an equal balance of instruments during practice and performance of this piece, the performer may find that the cowbell (or gonkagui), in particular, will project much louder than any of the other instruments due to its metallic construction and timbre. The performer may wish to experiment with various methods of dampening this instrument, such as inserting a small, soft piece of foam into the mouth of the cowbell.

The author of this document able to procure and subsequently perform on traditional African instruments. The djun-djun was set up in the same way as the kick bass drum with a double-bass drum pedal. The gonkagui was set up in the same fashion as the cowbell on a boom cymbal stand. With regard to the songba, because this instrument cannot be mounted on a traditional tilting tom-tom stand, the author chose to place this instrument on a drum-set height snare drum stand in the middle of the set-up between the 26- and 29-inch timpani. This allowed her to not have to stretch her arm in the way that she did so to play the tom-tom, and did not require her to alter any stickings. This alternative set up (see Figures 108 and 109) can also be adapted with Western instruments.
Figure 108 *Prelude No. 3* Set-up using African instruments

Figure 109 *Prelude No. 3* Set-up using African instruments, audience perspective
In general, when using these extra instruments, the performer must be aware of balance between all of the different sounds. Deane emphasizes that this piece is still meant to be a timpani feature. He also points out that the construction of traditional West African instruments (the natural wooden shells and thick animal skin heads) create a much warmer, sound compared to Western instruments. He says:

African instruments actually are a little mellower, and they are a little more friendly to allowing the timpani to be present in equality to the other instruments, so …when I have people playing it, if they’re using Western instruments, I always have to tell them that you have to take the dynamics written for the drums with a grain of salt because the timpani will sound less significant if you’re not careful. It is still kind of the feature instrument [of the piece].

That being said, the performer of this piece might consider various dampening methods for each of the instruments, should they be using Western instruments. The performer

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239 Christopher Deane, Telephone Interview by Naomi Joy Marcus, December 5, 2015.
240 Ibid.
should also take into consideration the eventual performance venue in which *Prelude No. 3* will be performed when practicing this piece, as concert halls with particularly resonant acoustics will further emphasize the loud, projecting nature of these Western instruments. In general, the performer should pay special attention to how they strike the tom-tom, cowbell, and kick drum, and ensure that they are playing them in equal (but in particular, not louder) balance with the timpani.

Two music stands are placed next to the outside edges of the 23- and 32-inch timpani in order to serve as mallet trays. It is recommended that the performer use two mallet trays so that they may execute the rapid mallet switches in each hand in measure 60 through measure 75. Upon initial set-up for a performance of this piece, they will have one soft felt mallet on each mallet tray, respectively. When the performer first switches to a soft felt mallet in the right hand in measure 59, they will put the right hand wooden mallet down on the mallet tray nearest the 23-inch timpano and replace it with the soft felt mallet that is already placed on this tray. As the performer switches to a left hand felt mallet in measure 65, they will put the left hand wooden mallet down on the mallet tray nearest the 32-inch timpano, and do a similar action in measure 66 when they switch to a wooden mallet in the right hand. By having two separate mallet trays they will be able to execute these mallet switches swiftly and efficiently.

It is essential that the performer sit while performing *Prelude No. 3*. This will give them greater facility when operating the double-bass drum pedal attached to either

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241 The mallet tray on the outside of the 23-inch timpano can be placed so that it is directly over the bass drum pedal directly attached to the kick drum. This will not be in the way of the performer, or the double-bass drum pedal mechanism.
the kick drum or djun-djun. The published score of *Prelude No. 3* is printed on 11”x17” manuscript paper. The performer may wish to reduce these pages to standard 8”x11” inch paper eliminating any page turns. The author of this document found that by reducing the score in such a way, she was able to fit all of the music onto two music stands, and did not have to include any page turns in performance.

There are several instances in which Deane instructs the performer to utilize a dead stroke on the songba. This occurs in measure 6 and measure 11, respectively. The performer will achieve this dead stroke by pressing the mallet into the head, rather than striking and immediately lifting off as they normal would. This stroke will produce a very dull, dampened sound. This sound is reminiscent of Western African drumming techniques in which the performers similarly press their implements into the heads of their drums to produce a drier, more punctuated sound.

The performer of *Prelude No. 3* will find that determining stickings for this piece will be largely intuitive, because the scoring of the timpani with the African instruments presents a very clear delineation of what each hand will be doing in a given phrase. Due to the set-up, the performer will always play the gonkagui with their right hand and the songba with their left hand. In sections where the timpani are intertwined with these instruments, for example in measure 15 through measure 21, the timpani will be played exclusively by the left hand.

Deane utilizes center and normal playing spots on the 23-inch timpano, alluding to djembe solo techniques. In sections of the piece where there is rapid alternation between these two playing spots, it is recommended that the performer play the center
playing spot with their right hand. An example of this can be seen in measure 35 and measure 36 (see Figure 108). The performer will utilize double strokes in these measures so that they do not have to move each hand back and forth at this rapid tempo and subdivision. The two hands will play in the same playing spot when executing the sixteenth-note triplet figures, as there is enough time to maneuver the left hand towards this spot to do so (by way of the preceding double strokes). Executing double strokes in this particular figure can lead to unwanted compression of notes, and is simply physically challenging for the performer.

Figure 111 Prelude No. 3, mm.35-36, Score with added stickings

The performer may wish to utilize double strokes between the 26- and 23- inch timpani in instances where the motive first used in measure 26 occur (see Figure 109). By using a double right hand sticking between these two drums, the implied hemiola phrasing will be be emphasized more clearly.
The “B” section requires that the performer pedal different notes on the 26-inch timpano in order to create a melodic line. There are two ways in which the performer may achieve this. The first way appears in measure 69 (see Figure 110). Here, the score uses notation that indicates that the performer should “gliss into pitch without striking the arrival note.” After striking the notated C, it is suggested that the performer operate the pedal by glissing in the span of a sixteenth note between the second and third eighth note partial of the beat, creating an audible arrival on the resonating D in the third eighth note partial (as it is notated). By applying this metering to the action of pedaling, the performer will increase their accuracy of time, rhythm, and pitch. This is because they are glissandoing in rhythm, and doing so in a way that stops the pedaling action when they hear the arrival of the desired note.
For all of the pedaling employed in measure 73 through measure 135, the performer should strive for as seamless an arrival at the newly pedaled pitch as possible. There should also be as little audible glissandoing sound as possible. The objective of the glissandoing technique described in the previous paragraph is to hear the arrival towards the new pitch. The objective of the glissandoing technique being discussed in this instance is to simply just hear the new pitch and now arrival towards it. Deane says of the execution of this section:

…if you don’t delay glissing for at least a few milliseconds, then the origin from whence the pitch is moving makes the gliss less tonal. I think you should always—I mean, I say always, but really, as much as possible—delay very slightly the moment of gliss so that the departure pitch is audible to the listener. If you gliss immediately you’re going to get more of a texture, but less of a tonal reference point, so I guess if I were to get into the nitty-gritty, I would want there to be an ever so slight delay, not so that it’s audibly heard as a delay and then a gliss, but just so that you have a point of reference…You kind of need to know where things are coming from before you depart from them.242

242 Christopher Deane, Telephone Interview by Naomi Joy Marcus, December 5, 2015.
With this in mind, it is recommended that the performer execute this section by simultaneously manipulating the pedal as they strike the new pitch. This will take a great deal of practice, as the performer should ensure that they are still achieving a lyrical, legato connection between notes, and the action of such rhythmic pedaling can be difficult to coordinate with a smoother action in the hands. With practice, they will develop a kinesthetic muscle memory in their foot such that they can acquire a feel for the physical distance between each of the pitches used in the musical line in this section. The performer may also find that using the tuning gauges\(^\text{243}\) as a visual reference point for determining their pitches to be a useful resource.

As this is the only section whereby pedaling is used to utilize pitches other than the home pitch of D on the 26-inch timpano, there are several moments in which the performer must discreetly retune the 26-inch timpano so that it is back on D. After being tuned to an E-flat in measure 72, there are two measures in which the performer is only playing the 32- and 29-inch timpani. During this time, they are also having to change mallets in the right hand from wood to soft felt. It is recommended that after changing mallets in measure 73, the performer carefully retune the 26-inch timpano to D in measure 74. They should discreetly mute the drum with one of their hands so that there is no audible glissandoing to the new pitch. This allows a full measure to change implements while the 26-inch timpano is still resonating from the previous measure.

\(^{243}\) Tuning gauges are devices that are located on the exterior of the timpani. They are directly linked to the tuning mechanism so that when the pedal is moved up or down, an indicator points to approximate corresponding pitches. It is important to note that gauges are only an approximate indication of the pitch of a drum, and in instances such as Prelude No. 3 can help to serve as a visual aid to what the timpanist should already be aurally perceiving.
the time measure 74 arrives, there will be very little, if any, residual ringing from this drum, and therefore, the sudden hand muting of the drum will not cause any premature dampening of the drum, which to the listener can sound very abrupt and jarring. A similar practice will need to occur at some point between measure 136 and measure 140. In measure 135, the performer is instructed to glissando down from the D on the 26-inch timpano, presumably until the drum reaches the very bottom of its tension level. This sounds as if the bottom completely drops out, and brings a sense of finality to this section, overall. In measure 136 through measure 138, the performer is only striking the 32- and 29-inch timpani, while also striking the songba and gongkagui. They will have to use both hands to do so, therefore these measures would not be a good spot to retune the 26-inch timpano to D, as they will not have any free hands to mute this drum. It is recommended, then, that the performer retune the 26-inch timpano in either measure 139 or measure 140. If they choose to do this in measure 139, they will have to use the right hand to mute the drum, as the left hand will be striking the songba. If they choose to do this in measure 140, they will have to use their left hand to mute the drum, as the right hand will now be striking the gongkagui.

With regard to the coda, the performer will find that the previous assignment of the left hand to the songba and the right hand to the gongkagui will have to briefly change. This change occurs in measure 142. The performer will find that it makes much more idiomatic sense to play the gongkagui with the left hand to facilitate the quick switch to both hands playing the 23-inch timpano. Similarly, it is also suggested that the performer
play the gongkagui with the left hand in measure 156 so that they can comfortably play the 23-inch timpano simultaneously with the right hand.
Chapter 6: CONCLUSION

The four pieces examined in this document are all exemplary timpani works. In addition to being musically creative and inventive, they all utilize the instrument to its maximum potential. One of the obvious reasons for this is that all of the composers were highly accomplished percussionists in their own right, and therefore had a firsthand understanding of the various technical nuances and idiosyncrasies of the instrument. To put it simply: they knew how to write for timpani well because they knew how to play timpani well.

The author of this document asked the three composers interviewed to talk about their thoughts on timpani solos. What do they like about timpani solos? What are some of the pedagogical challenges and concerns regarding timpani solos? Why do they think timpani solos are not programmed as much as, perhaps, marimba or multiple percussion solos? The answers to their questions are enlightening and illuminating. They expressed their true and genuine appreciation for the instrument and their art form, and, in the opinion of the author, completely and sufficiently summarize the overall scope and need for the research presented in this document.

Jan Williams commented on the appeal of timpani as an interesting instrument for which to compose. He said, “I wonder why composers are not attracted to timpani as a
solo instrument given the possibilities inherent in the characteristics of the instrument, i.e. large, resonant body, infinite tuning (micro-tonal possibilities), fairly large range, etc.…”

Williams’ comments acknowledge the numerous possibilities for interesting sounds that may be achieved on these instruments. Perhaps if composers simply understood these better, they would then understand the limitations of the instruments, and therefore, would be encouraged to write for it more.

With regard to the issue of programming timpani solos, William Cahn said:

Cahn brings up an important point. The programming of timpani solos in recitals is often the result of academic requirements. Perhaps more of a precedent should be set for programming timpani solos in venues other than school settings where non-percussionists are more likely to be present. Increased programming of timpani solos, regardless of the performance venue, will surely increase the interest level in listening to and examining these works.

Christopher Deane had an interesting anecdote regarding this idea. After performing a timpani solo as part of a recital for a group of non-musicians early on in his

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244 Jan Williams, E-mail Interview by Naomi Joy Marcus, October 24, 2015.
245 William Cahn, E-mail Interview by Naomi Joy Marcus, September 23, 2015.
career, he was met with great enthusiasm. He credits this to the fact that, “if you do it well, if you really present the instrument as a real musical instrument, not just a bash fest, people will get it, because it is a unique voice, and it’s a beautiful voice if it’s done right.”

The purpose of this document is to provide a guide for future performers of the timpani solos that were discussed and to give further attention to an often neglected topic in the field of percussion research. By thoroughly examining these pieces and their various performance concerns, the author uncovered how each work best conveyed their respective composer’s ideas while still preserving the integrity of the instrument’s inherent voice. Christopher Deane says that timpani, like any other instrument, percussion or otherwise, “tell us what we want to do with them if we listen.” Each of the composers discussed in this document listened to and understood the instrument, and found new and exciting ways to manipulate what they heard.

During the writing of this document, the author presented a lecture recital in which each of these works were performed in their entirety. Many of the audience members commented that it was the first recital that they had been to in which timpani was the only featured instrument. While the author certainly believes that the emphasis on a multi-faceted, diverse percussion education is important, she found that spending an extended period focusing on just one instrument was an illuminating experience. She was able to draw comparisons and highlight contrasts between each of the individual works, as well as comparisons between timpani and other percussion instruments.

246 Christopher Deane, Telephone Interview by Naomi Joy Marcus, December 5, 2015.
247 Ibid.
Adapting four-mallet technique to the performances of *Four Pieces for Timpani* and *Variations for Solo Kettledrums* informed her understanding of this technique as it would be applied to keyboard percussion pedagogy. The world music influences in *Raga No. 1* and *Prelude No. 3* underscored larger musical trends that not only apply to the performance of music specific to those cultures, but other percussion works that are similarly influenced by non-Western music. Finally, understanding each of the composers’ own personal histories and the contexts in which each of them wrote their respective works helped to frame the author’s interpretation of them. Understanding the countless contributions that each of these composers have made to music is only one way that the performer can gain perspective.

Further research in the field of solo timpani performance might include examining other works in the medium. Additionally, it is the hope of the author of this document that more timpani solos will be written and published in the future, perhaps as the result of a consortium commissioning project involving both established composers of works for percussion and composers who may not be as well known for their percussion compositions. This commission can either be in the form of stand-alone works, or perhaps even as an anthology of works. Finally, the author hopes to present elements of this document in clinic settings, as well as to produce professional quality recordings of each of these works in the future.
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The following are the questions and answers as part of an interview with Jan Williams and the author of this document. After a brief correspondence, the author sent Mr. Williams a document with her questions on Sunday, October 18, 2015 via e-mail. Mr. Williams responded with his answers to these questions on Saturday, October 24, 2015.

What made you want to write a timpani solo? In Thad Anderson’s PAS article about this piece, he writes about how your teacher at the Manhattan School of Music, Paul Price, encouraged his students to write their own pieces often, and that this was a piece you wrote for your Master’s Recital. Why timpani, though?

*Paul was always looking to expand his Music For Percussion catalog as well as percussion repertoire in general and I think that he felt solo timpani was under-

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248 The questions are presented in plain font while Mr. Williams’ answers to them are italicized. All other interview appendecies in this document will be formatted in this way.

249 There was no follow up questioning after this first exchange of questions. Mr Williams did, however, provide the author with scanned copies of the original sketches to *Variations for Solo Kettledrums* several days following this interview.
represented, so that’s one reason he suggested that I write a solo timpani piece. He was the one who came up with the idea of a piece based on the 12 tone system simply because he didn’t know of any timpani piece that were. I took his suggestions seriously.

Did Elliot Carter’s *Six Pieces for Four Kettledrums* or any other timpani solo that you had worked on during your time at MSM influence *Variations for Solo Kettledrums*? For that matter, were you influenced by any other piece of music written for another instrument (percussion or otherwise) when writing *Variations*? After working with Carter on revising this work, have you ever thought about revisiting *Variations for Solo Kettledrums* in a similar way?

*The Carter pieces definitely and John Bergamo’s piece. It never entered my mind. At this point, I don’t think revisions are warranted.*

One of the other pieces that I am writing for my document is John Bergamo’s *Four Pieces for Timpani*, which was also written at MSM while you two were studying with Paul Price. Just out of general curiosity, were you aware of this piece when writing *Variations for Solo Kettledrums*, and if so, was this piece an inspiration? (Personally, I just think it is very cool that two timpani solos that are so frequently performed were written under such similar circumstances within just a few years!)
John and I were close friends and I was very aware of and inspired by his piece, which I think he wrote for Max Neuhaus. I have always respected John’s talents as both a composer and percussionist.

Why did you decide to write *Variations for Solo Kettledrums* using twelve-tone theory?

*Answered above.*

How strict were you in your usage of twelve-tone theory while writing the piece? In other words, were you constantly aware of the rules of this process while you were writing, or were you adapting some things to fit this theory as you went along?

*I had studied the basics of the theory in classes at MSM, but I was, and am still, not knowledgeable about the more subtle aspects of composing using the system. So, I most certainly freely adapted the rules to suit my needs in this piece.*

How did you come up with the tone row for this piece, and how did you then use it to choose the pitches for each subsequent movement? Were you taking into consideration the ranges of the drums?
I most definitely considered the ranges of each timpano when deciding on the complete row and the four note sub-divisions. I honestly don’t remember how I arrived at the final row.

Your program note at the beginning of the piece is very helpful in analyzing the movements beyond the theme and variation. When you say in the program note that “…in Variation No. 1 the inversion and retrograde inversion are used…,” to my understanding and based on my analysis, that would mean that you are referring to the inversion of the first tetrachord of the original tone row, and the retrograde of that. Therefore, using this method of analysis, one can then say that Variation No. 2 uses the prime form of the second tetrachord of the original tone row, and the retrograde of that. Is this the “correct” way of analyzing this piece?

Absolutely.

Along those same lines, in the performance note you said, “In each movement, four notes are treated as individual rows.” That being said, should each movement be analyzed based on the order of pitches in the tuning (or rather, the order of drums from low to high) or should they be analyzed based on the order of pitches as they appear in the actual context of the movement? Or, should each movement be analyzed based on the order in which the tuning notes appear in the tone row or one of its transformations?
They are to be analyzed based on the order of pitches as they appear in the actual context of the movement.

In general, is there “one way” that you see this piece as being analyzed? I ask this because after reading Thad Anderson’s article and his analysis, and then looking through the piece on my own independently of that, I see there are a few ways that one could analyze the twelve-tone theory. Do you think that the performer of this piece would greatly benefit from analyzing the twelve-tone theory of this piece for each movement?

I don’t think so, at least not “greatly”. I hope that everything the performer needs to know in order to perform the piece effectively, and musically, is contained in the notation and performance notes.

Are there certain aspects of the twelve-tone theory of this piece that affect the execution/overall performance of the piece that you were conscious of while writing it? For example, in the theme, you use the prime form and retrograde of the first tetrachord of the tone row. This creates very distinct low-high and high-low figures throughout the movement, which can be considered a unique and recognizable rhythmic and melodic texture. Did you consider the kind of musical texture/feeling that would be created as a result of the parts of the tone row and its transformations that you used in each movement?
Not exactly sure what you’re asking here. Simply, once the order of the pitches was decided, the pitch sequence for the variation was set, i.e. the same pitch scheme I followed throughout the piece. So, a note can be repeated, but not used out of sequence.²⁵⁰

The way that you notated metric modulations in the Theme (with different note heads and the 6/6 time signature) is very interesting. It makes for a very streamlined process of performing, in that visually, it is very easy to see where the new tempo occurs, which can be very helpful. I had never seen this kind of notation for metric modulations prior to studying this piece. Is this a technique that you devised yourself, or is there another piece or composer that uses a similar kind of notation for metric modulations? How come you didn’t use this same kind of notation for the metric modulations in Variation No. V?

Michael Colgrass used the different note heads in some of his scores at that time. I decided to use his system because it made rational sense. If one breaks down the whole note dividing by 2, then why not by 3, i.e. 3rd and 6th notes. Triplets are irrational, 3rd note are rational. The tempos changes in Var 5 are simply between quarter = 60 and 120 and are mostly separated by fermati. I felt no need to used metric modulations in this case.

²⁵⁰In a follow-up e-mail to Mr. Williams, the author clarified this question by simply asking, “What came first: the rhythms or the tone rows?” to which Mr. Williams replied, “Always the tone row.”
You provide some sticking markings in *Variation No. I* and *Variation No. II*, but none in any of the other movements? Is there a reason for this? In general, do you think that your sticking should be strictly followed (and as such, be replicated in any subsequent similar phrases that don’t have sticking; an example of this would be in the sixth line of *Variation No. I* in the repeated 16th notes at the end of the line that don’t have specified left hand stickings written underneath), or are they more of a suggestion, and sticking can more or less be left up to the performer?

*Since repeated notes on the same drum sound different if played with the same hand or alternating hands, I wanted to specify which sound I preferred. “RLRR” sounds different then “RLRL,” right? Where I indicated specific sticking, I want that sticking, when I did not indicate a sticking, then it’s left up to the performer.*

The only movements that have notated dampening are *Variation No. II* and the very end of *Variation No. III*. In this instance, are you using dampening purely the purpose of deadening excessive ring, or do you use it more for a contrast in timbre?

*In all cases where I indicate that certain pitches are damped, it’s because I want the undamped pitches to be the only one sustaining.*

With regard to dampening, is this something that you leave to the discretion of the performer to do at liberty (for example, after the last measure of the theme and/or after
each sixteenth note in measure 1 through measure 7 and measure 17 through measure 21 in *Variation No. IV*), or do you prefer that no additional dampening be used?

*These notes are marked staccato and sfz and are of short duration, so it seemed to me that the performer would assume that they should be damped, so I didn’t feel the need to indicate this with the “x” notation.*

Are you open to other stick options for *Variation No. III* (as opposed to rattan handles)? I ask because I have experimented with timbale sticks, both with and without moleskin covering (so as not to damage the drum heads), and have found advantages to these in that they offer slightly more control in the hands.

*Sure, I’m open to other options as long as the resulting sound is very light and exploits the higher harmonics of the drums. I discovered bamboo knitting needles when learning Frederic Rzewski’s “To the Earth” and I’m thinking the the butt end of say, #10 needles might work for this variation. Just a thought.*

I have also experimented with both wire and nylon brushes for *Variation No. IV*. Do you have a preference?

*I don’t think there were nylon brushes in 1964. At least I didn’t know about them if there were. So, the sound I have in my ears is the sound of wire brushes. I do think that the*
brushes might result in a heavier sound, as opposed to the rather higher/lighter sound of the wire.

You write in your performance note, “The metronome markings should be followed strictly.” How did you arrive at some of the metronome markings? Are you open to the performer making some adjustments to the metronome markings for reasons of acoustics in a performance hall (for example, slowing certain movements down in a particularly resonant hall) or otherwise?

*How does any composer decide on tempo? As I recall, they just seemed to me to be the right tempos. Intuition, I guess. Not opposed to adjusting tempi in relationship to hall acoustics as long as rubato doesn’t creep in, which would cause the metro modulations to be less effective.*

Finally, one of the reasons I decided to write about timpani solos for my D.M.A. document is that I’ve always perceived timpani pedagogy to be more focused on ensemble (“orchestral”) playing, without as much attention on solo playing. It seems unbalanced to me, then, when one studies a timpani solo, in that there are so many other considerations, such as extended techniques, more virtuosic playing, etc. Additionally, I have also perceived that timpani solos are less frequently programed on solo percussion recitals, particularly in comparison with marimba and multiple percussion solos. I often wonder why this is, given that their is such a heavy emphasis on studying it within the
I wonder why composers are not attracted to timpani as a solo instrument given the possibilities inherent in the characteristics of the instrument, i.e. large, resonant body, infinite tuning (micro-tonal possibilities), fairly large range, etc. I do think that there is a kind of reverence for timpani associated with their role as the “king” of orchestral instruments which is promulgated by conservatories and orchestral timpanists. There is a resistance to using extended techniques on the timpani, often fueled by the perception that the instruments might be damaged or harmed in some way. I can understand this to a degree because composers that are not timpanists or percussionists aren’t always aware of what might cause damage.

When Elliott Carter and I got together to look at his original 6 timpani pieces in 1968, I demonstrated rolling with snare drum sticks. Subsequently he wrote his Canto. Now, I
was not playing timpani in an orchestra, our timpani we used solely for contemporary chamber music. There was no “sentimentality” for the “king” involved. The plastic heads did show a very slight denting from the SD sticks, but this did not affect the sound in any way and definitely did not ruin the heads. I think that when orchestra timpanists, or their students, considered playing Canto they generally balked at using SD sticks with smallish beads because of the possibility of “pocking” the heads. So, yes, there are certainly different considerations for percussionist who use timpani in a contemporary chamber music setting and orchestral timpanists.
APPENDIX B: Interview with William Cahn

The following are the questions and answers as part of a two-part interview with William Cahn and the author of this document. After a brief correspondence, the author sent Mr. Cahn a document with her questions on Saturday, September 19, 2015 via e-mail. Mr. Cahn responded with his answers to these questions on Tuesday, September 22. The author sent Mr. Cahn additional questions on Tuesday, September 22, and Mr. Cahn responded to these on Wednesday, December 23. There were no more follow-up interview questions after this final correspondence.

You do not specify any sticking choices/suggestions throughout the some of work, with the exception of the section from measure 125 through measure 190, where there is a clear separation of the roles of the hands due to the fact that the left hand is still using a mallet, while the right hand is using fingers. A similar separation of the hands occurs in moments such as measure 48 through measure 60, measure 65 through measure 73, and measure 75 through measure 85. I would be curious to know how you tend to determine stickings in your own playing of this piece (and in your own playing, in general), if it was something that you were conscious of when you were writing this piece, and why you
chose to not include stickings in the music, as many composers of percussion solos often do. Do you have any specific stickings that you would recommend for some of the other sections? For example, in the opening of the piece (beginning through measure 16) or for measure 84 through measure 105? For the opening, I am relying very much on a strong right hand lead and doing very little alternating, as I feel this brings out the longer, slower-moving phrases. In measure 84 through measure 105, I am doing as little cross sticking as possible, but instead I am doing many double-left hand stickings between the 29-inch and 32-inch drums, as I feel this creates a smoother, "drone-like" quality at the written soft dynamic (please correct me if I am off in my interpretation!).

_Normally, I don’t have recommendations for sticking, because deciding on a sticking is one way in which a player can define her/his own individuality, which is something I want to encourage. In a teaching environment it may be necessary on occasion to suggest that a student find (rather than have me give) another sticking in order to deal with a particular problem. My preference is that performers (and students) define and resolve their own problems. Also, most audiences don't care at all about what sticking is used. What is important is that audiences are “touched” in some way by the music. My experience has been that the most effective way to touch listeners is for the performer to find and display a sincere individual voice._

_In my own performances, I generally prefer to allow stickings to be freely determined (and not necessarily pre-determined) while I am performing, in order to infuse each_
performance with a sense of spontaneity. In other words, my stickings may be different from performance to performance. Generally, the process of sticking for me is more intuitive (i.e. does it feel right at that particular moment) than cognitive. Rather than have sticking decisions be restricted by a pedagogy, I’d rather have them serve an intuitive sense of line and phrasing. In the passage from m.84-105 it’s possible to use either double sticking or alternating sticking (with one hand constantly on the B-natural drum). I have used both in my performances.

Similarly, you do not specify any spots where the performer should dampen any notes. Was this also a conscious decision, and if so, why? Are there moments in this where you choose to dampen?

In performance on timpani, making a decision about where to dampen is another way in which a player can define her/his own individuality. Generally, based on my student experiences of studying with Fred Hinger and hearing him perform with the Philadelphia Orchestra, my own preference is to allow the drums to ring as much as possible, unless there is a clear and audible musical reason (to me) to dampen. For example, in an orchestral work having a passage for timpani with brasses, it may be necessary to dampen the timpani to conform with the brass phrasing, especially at cutoffs. While I am aware that allowing the drums to ring as much as possible is not currently in vogue, I still try to avoid what I consider to be over dampening. That being said, it is possible (in
m.9 for example) to dampen the G-natural as the Bb is struck, even though the G-natural is notated to let ring. I have done both in performances.

In measure 134, should the right hand stop the finger tremolo exactly on big beat 2, or should it connect to the last note of the measure in parentheses (and what do the parentheses indicate)? This question also applies to measure 139. Similarly, in measure 145, should the right hand tremolo be happening while the left hand strikes the drum on little beat 2?

In m.134 the finger tremolo should end on big beat 2 with an accented finger stroke to begin the glissando (there should be no finger roll on the glissando); the gliss should end back at the high G-natural; the parentheses indicate that the high G-natural is not struck.

In m.144 the finger tremolo should end (un-accented) on little beat 2 as the high G-natural is struck (accented) in the center of the drum by the stick in the left hand.

In your blog entry about this piece, you write about how there was no specific piece of Indian classical music and/or style that you had in mind when composing this. Is there any significance with regard to the use of the center of the drums as it relates to the Indian music inspiration?

Playing in the center of the drums highlights the clearly audible difference in sound, which expands on the normally limited sound possibilities of the timpani. As in the Eliot
Carter solo timpani pieces, there is a very small target in the center – about the size of a 25-cent coin – to obtain the most distinctive short sound, with minimal head ring. As you may already have read, the significance of the B-flat/C-flat interval mostly has to do with an implied major/minor ambiguity, rather than with any specific aspect of Indian classical music. In a solo timpani piece, the subtle difference between these two pitches is clearly audible in the section from m.84 to m.105, especially when highlighted by accents. To be very clear, there were no direct technical or structural connections with any aspect of Indian classical music during the composing of Raga No. 1. The only connection was the intuitive effect produced on me after hearing Indian classical music, in the same sense that orchestral composers - Rimsky-Korsakov or Maurice Ravel - were inspired by hearing Spanish music. Their compositions perhaps sound more Russian and French than Spanish, even though they succeeded in capturing some Spanish flavor in their music.

You also mentioned that you were very inspired by the rhythmic complexity of the music. Does this factor into the alternating of accents between downbeats and upbeats throughout the section of measure 85 through measure 105 between the 29- and the 26-inch timpani (aside from the half-step interval that you discussed in your blog). This shifting of accents and phrases throughout this section can make the sense of meter feel unsteady, so I was just wondering if there was any certain Indian rhythmic aspect behind that.
The accents – on and off of the beats – simply provide a sense of rhythmic energy, though they may also add a bit of rhythmic ambiguity to the Bb/Cb ambiguity. I might make a brief comment here on ambiguity. It is ambiguity that provides an environment for an art to have its strongest effect on both performers and listeners. It is in the resolving of ambiguities that each performer may express individuality, and each listener may create a personal interpretation. Percussionists (and I think most musicians) live in a world of musical ambiguities. A perfect example is the cymbal part to Debussy's "La Mer." The only information about what instrument to use in most of the cymbal part is "cymb." What does "cymb." mean? Singular or plural? Suspended or crashed together? If suspended, what kind of stick/mallet should be used? Exact note-length or let ringing? What size cymbal(s)? Dark (emphasis on high overtones) or bright (emphasis on low and mid overtones)? What dynamic - how loud or soft? Etc.

Given some of your answers, do you then encourage performers to experiment with things like tempo (within the range of the written "allegro") and mallet choice? Do you also take into consideration things like the acoustics of a given performance space when making some of these decisions?

I do encourage students (and performers, when asked) to experiment with all aspects (tempo, phrasing, dynamics, stickings, rolls, etc.) of the music they perform; the goal is to find the most convincing and personally truthful presentation of the music. In my experience the ear almost always takes priority over the ink. One possible exception may
be when the composer is physically present and asks for something that I would not otherwise do, but my experience has been that most times when I have trusted my decisions, composers have embraced them to the point of actually rewriting the part to incorporate them into the score.

I decided to write my paper on the topic of solo timpani because it always seemed to me that so much of the existing pedagogies/methodologies are geared more towards studying/playing this instrument as it exists in the orchestra, rather than as a solo instrument, and perhaps appropriately so, given that they have the deepest roots in the orchestra of the rest of the percussion family. With so many wonderful timpani solos out there that incorporate different styles of music, extended techniques, and other "non-orchestral" things like that (not to mention the fact that the timpanist is playing by themselves!!), it seemed to me like it would be worth it to look at these solos through a different lens; exploring things like sticking/dampening choices, but also considering how these choices may affect the soloist's interpretation of the piece. I'd be curious to know what your opinion might be on this!

The issue of solo timpani repertoire versus orchestral timpani repertoire largely comes down to “who is the audience.” The audience for solo timpani repertoire is almost entirely limited to percussionists in music school recitals and/or percussion competitions. The composers of solo timpani pieces are mostly percussionists (Elliot Carter being a notable exception) and the compositions are largely intended to display
the technical capabilities of the performer, which is primarily what the audiences want.

The audience for orchestral music (which includes timpani as part of the orchestra) is much larger and consists mostly of listeners who are non-musicians, and who are much more concerned with the music as a whole than with any technical aspects of performance. The composers are concerned more with the overall musical effect – both emotional and intellectual - on the audience than with the technical aspects of any of the instruments.

Would you mind if I cited some of your answers in my final document?

Please feel free to use anything in my responses as you like.
The following is a transcript of a telephone interview that took place on Sunday, December 5, 2015. After a brief e-mail correspondence with Professor Deane, the author provided him with a document containing her interview questions. This telephone interview was then held several weeks later.

CD: So now tell me a little more about your doctoral thesis project if you wouldn't mind.

NJM: Right, so the working title for it right now is, “A Performer’s Analysis and Guide to Four Standard Timpani Solos,” and when I started this project I had this vision of—and you might know how this story ends—but this vision sort of started to fall apart. I had this idea of kind of reinventing timpani pedagogy in a way that better fits timpani solos using these for solos as examples. The more I started working, though, and learning the pieces and talking to people like you, and I’ve also been in touch with Bill Cahn and Jan Williams—

CD: Mmhmm.
NJM: I just realized that there’s a gap in the research about timpani solos, in general, and I think it’s worth it to just have a document that says, “These are four timpani solos that are performed a lot, this is an interpretation of them, these are some of the things that go on in them, this is what the context is for them. I’m also doing sections on performance suggestions for each piece, as well. I found that by sort of switching gears to that, I’ve been much more productive in finding things to talk about, all while learning some really great pieces.

CD: Well you know this is really a fairly common experience with the doctoral projects; you probably know that by now. You do have to just set up a target and start shooting, and you know once you do, then you can start to see what targets work better. But you started with a genre that you knew had some need in there, which is great. Over the years I guess I’ve helped maybe 14 or 15 people kind of divine their subject matter and it always starts with a big picture to small and so it sounds like you followed a very traditional path and I think now—Bill Cahn’s music, are you doing on of the Ragas, or what are you doing?

NJM: Yes, I’m doing Raga No. 1. The pieces I’m doing are the Bergamo Four Pieces for Timpani, Jan Williams’ Variations for Solo Kettledrums, your piece, and then Raga No. 1—

CD: Boy, I’m very honored with that company, by the way, thank you.
NJM: Yes, well it’s really because I’ve loved the piece for such a long time, and you know I was—I used to study with Kris Keeton\footnote{Dr. Kristopher Keeton is the former Assistant Professor of percussion at the University of North Carolina at Greensboro (UNCG). He is currently a percussionist in the United States Army Ceremonial Band. The author of this document studied with Dr. Keeton while pursuing her Master of Music degree at UNCG from 2011-2013.} and it was a piece that he played a lot, and he had recorded it for some things. I also saw a few other people perform it, and it was just one that I always thought, “Gosh, I really want to play that piece!” Truthfully, there’s actually two big reasons why I landed on timpani as the starting point for my topic and one of them was because I thought to myself, “I really want to program Prelude No. 3 for a recital,” and I thought, “What’s a way that I can sort of work than into a document…”

CD: [laughs] Oh, bless you for that. That’s very kind. And, you know, he plays it—Kris [Keeton]—I’ve told you this before but—wow, I mean, I had misgivings about the piece, I mean it was sort of circulating around, but then he played it at PASIC\footnote{PASIC is an abbreviation that stands for the Percussive Arts Society International Convention.} a few years ago, and when I heard him play it, I went, “Okay, this piece actually can live now. Maybe its worthy of publication.”

NJM: Yes, and so the more that I thought about timpani solos—the ones that are performed so frequently—they often have some kind of “non-timpanistic” element going on, whether it’s an extended technique, or with your piece the inclusion of other
instruments. As you probably know there are a lot of other timpani solos that have this, John Serry’s Therapy comes to mind.

CD: Right.

NJM: So while sifting through different ideas of solos that I would potentially write about I realized that I was hitting these major bases for consideration when you are dealing with timpani solos that aren’t so straight ahead with the ones I had eventually chosen, such as incorporating other instruments and non-Western styles in your piece, and something like the Williams: playing a piece that’s six movements and variations on a theme.

CD: Great. And that’s a great piece, I’ve always considered that the ninth Carter piece is a way, and he wasn’t totally upset with me for mentioning that, which is good.

NJM: [laughs]

CD: He [Jan Williams] was such a big assist to Carter, of course, and this piece being the only twelve-tone timpani piece that I was aware of. There may be others out there now, but it kind of fit into a very unique sort of milieu, but, what a great thinker, and I love the piece. It’s a venerated solo and it is so brilliant in so many ways.

253 Professor Deane is referring to Elliott Carter’s Eight Pieces for Four Timpani.
Well, I think you’re onto it, and I just want to be from here on out as helpful as I can to you, so, do you have any questions, list of, what can I do to help you?

NJM: I have a list of questions in front of me, and as we go, I’ll keep track of the ones that I’ve asked you because we might—the conversation will take place and it may eventually be answered, but to start: What made you decide to write timpani solos? I know you have Prelude No. 1, and I know that this piece [Prelude No. 3] was written for John Fedderson, and there is a gap between these two solos chronologically.

CD: There is, and there is a second [timpani Prelude] that doesn’t exist anymore, and if you have an extra two minutes I can entertain you with the story.

NJM: Absolutely!

CD: Okay, well, the first prelude was written for a dear fiend of mine, Carol Stumpf, who at the time was timpanist of the Charlotte (North Carolina) Symphony. She had been a student of Gerry Carlyss\textsuperscript{254} in Philly and she came down and just played beautifully, and she was there four, gosh, 20 years, maybe. She suffered an injury and she also had some severe tendon problems, so she wrestled for many, many years to stay in the game. She was backstage and a ladder hit her on the head and she had a serious closed head injury.

\textsuperscript{254} Gerrald Carlyss was principal timpanist of the Philadelphia Orchestra from 1967-1988, during which time he was also the Chairman of the percussion department at the Curtis Institute of Music. In 1988, he joined the faculty of the Indiana University Jacobs School of Music.
and it basically sort of brought her career to a halt. However, in the past year and a half I understand she started playing again and she’s doing a lot of extra timpani playing with—I think it’s the Columbus (Georgia) Symphony, I think. At any rate, it’s good to hear that, and I think I sense the planet’s force as being brighter now that she’s holding sticks again. She is really a great musician.

She had heard my piece, Etude for a Quiet Hall, and she said, “I like that piece, why don’t you write me something for timpani?” and I said, “Well what would you want?” She said, “Well, just write that [Etude for a Quiet Hall] for timpani.” So she sort of gave me a plot, and I followed through with it, and that’s why it is sort of the way that it is, and she still occasionally plays it, she told me about a year ago, so that’s nice. [Prelude] No. 2: I went to graduate school at Cincinnati [Conservatory of Music] with Al Otte, who was my major professor. Al challenged me in many ways—good ways. I learned so much from the guy, not always about how to play paradiddles, but how I think about things. I had been out of school for six years, so I was going back as kind of a seasoned, mature person, so I was ready for his level of challenge, which was good. But we were talking about my graduate recital and I said, “I’m going to go ahead and finish writing a Prelude No. 2,” and he got that wistful look in his eyes, and he said, “Um, isn’t there enough timpani music in the world already?”

255 Allen Otte is currently a professor of percussion at the Cincinanti Conservatory of Music, where he is also a member of the school’s percussion ensemble in residence, the Percussion group Cincinatti.
CD: And then he paused and said, “Shouldn’t we actually get rid of some of the music?”
Now at this point he is being sarcastic, I know that he’s not a Nazi, he wasn’t proposing that we actually get rid of [timpani music]. But the plot was laid fairly thick for me, so I thought, “Alright, so Prelude No. 2 is going to be about writing a piece for timpani,” and so I sort of scribbled all the fanciful ideas I could down and I used one drum, and I dressed it like a table, and then yanked the tablecloth off, and I made special effects, I took a picture of me standing with it, and all of this was within the guise that some people think music should create pictures, some people think that music should illuminate a part of the voice of the— I went through this long [speech], I mean it was almost ten minutes long.

NJM: [laughs]

CD: At the end, I laid this old Ludwig drum on its side and—no worries it had had much worse things done to it over the years—

NJM: [laughs]

CD: And I walked to the front of the stage, and as I’m saying all of this, I’m beginning to rip the score up, and I’m saying, “But there are those who believe that perhaps writing
music for timpani is not really a worthy action, and there are those who even think we should get rid of some of the literature written for the timpani.” By this time I had made a fairly sizeable amount of confetti that was falling down into the pit (and I did have to go down and clean it up afterwards, by the way).

NJM: [laughs]

CD: I wanted to burn it, but there were fire codes, so I couldn’t do that. So Al comes up to me after the show and he says, “Well, you know, the timpani piece, I loved it! I want a copy of it,” and I said, “Al, that was the music,” and he said, “I Know, I get it, I get what you’re saying, the point was made.”

I said, “No, Al, that was literally the Prelude No. 2, it’s down in the pit now,” and he said, “But you have sketches, you have—,” and I said, “No, actually, everything that I did was written on that one piece of paper.” (It was a large score). He said, “But we have the recording, we can reconstruct it,” and I said, “You’re missing the point, my friend, the piece is gone, I did what you said ‘we’ should do.”

It was one of the great triumphs of my college career because he really wanted it. (You can make a little note saying, “Prelude No. 2 no longer exists, and for good reason,” or something clever like that.) I was very proud of myself on that one and that’s not a very
common feeling I have for my work because he really wanted it, and he really can’t have it, so now he knows.

NJM: [laughs]

CD: But Prelude No. 3 was written about a year and a half-two years later—two years later, approximately. I think I said ’94. It was probably sketched in ’93. John Fedderson, timpanist of the North Carolina Symphony—and he’s still there, although I’m quite sure that he’s nearing retirement at this point. Did you ever see the North Carolina Symphony when you were at UNCG?

NJM: I saw them once when they cam and did a run-out concert at Aycock [Auditorium], and they played Mahler [Symphony Number] 4 and the Berg Violin Concerto.

CD: Oh, wow!

NJM: It was incredible.

CD: Yes, I mean that is such a hard-working orchestra, oh my gosh. If they did the Berg—well, you’ve heard them play, and Mahler, that would’ve been lovely. I played that symphony with that orchestra and that’s lovely.
John is a great guy and he plays beautiful timpani. He was a big influence on me, and he’s also secretly—or at least at that time he was—absolutely impassioned with djembe and West African drumming. So when he said, “You have to write me a piece,” I was thinking, “Alright, I have to combine those two things that he loves the most,” so that’s why the piece has the combination of these two things.

I wrote it for him, I gave it to him, and he sort of kept saying, “Next week I’m getting to it, next week…,” and it finally came down to the wire and he basically just faked his way through it at a day of percussion that took place at East Carolina [University], and I don’t think he’d ever played it since, but I think he’s responsible for kind of handing it to other people to do, which is probably where Kris [Keeton] got it, and some other folks, manuscript versions of it.

Because I didn’t really ever hear it played at that point and my hand-to-mouth career at that time meant that I was way too busy to spend time shedding things for recitals, etc., so I just kind of put it on a shelf and forgot about it until I started getting people calling me about it, telling me they were playing it, so that was nice, but it was really Kris Keeton’s performance that convinced me I should do something with it.

NJM: So apparently, then, you were aware that this piece was getting passed around?
CD: Yes, and that’s flattering. You know, composing for percussion can’t really ever be about income, basically. I’ll just share that with you if you have visions of putting additions onto your someday house, or something.

NJM: [laughs]

CD: No, you’re not going to do it with—not unless you write the really cheesy stuff, but I was really happy that it [Prelude No. 3] seemed to be serving people’s needs out there, but, again I was deeply appreciative that he [Kristopher Keeton] played it in such a high exposure venue [PASIC], and did such a beautiful job with it, so that’s when I made the decision that it needed to be in a better print.

NJM: Right. One question that I have—going off of what you were saying about when you were writing the piece—did you have drums set up, were you experimenting with different sounds? What was it like trying to incorporate African sounds in with the timpani?

CD: I don’t own those African drums. I have a djembe, but I had drum set components that I set up in my house, and I would kind of set it up, and then when the wife would get upset with me I would break it down, but it was enough to kind of make sure that things could work. John actually had the djun-djun and the kenkeni and the songbon. It was the djun-djun and songbon that he was using, so he was able to actually use the real
instruments. I went over once, and he played some of it for me and it was clear that it would work on these instruments and that, in fact, these instruments are a little more subtle than Western instruments, which is something that we’ll get to in a few minutes with the balance issue. You really have to factor in the lack of projection that the timpani has in relation to those other very percussive instruments.

NJM: Right.

CD: African instruments actually are a little mellower, and they are a little more friendly to allowing the timpani to be present in equality to the other instruments, so whenever—I have students that have played it for me—when I have people playing it and they’re using Western instruments, I always have to tell them that you have to take the dynamics written for the drums with a grain of salt because the timpani will sound less significant if you’re not careful. It is still kind of the feature instrument [of the piece].

NJM: Yes, and I have found in particular—and I haven’t yet experimented with an actual gongkagui—the cowbell especially, the balance of it, just getting that at the right dynamic can be very [laughs] challenging. There aren’t many situations where you intentionally try to play the cowbell softly, but it can just completely cover everything else going on in this piece.

CD: Yes, it wins ever time.
NJM: Yes! [laughs]

It says at the top of the score, “Inspired by Western African rhythms.” Are there any specific West African rhythms that you were referencing?

CD: You know, yes, and I was afraid you were going to ask that.

NJM: [laughs]

CD: Somewhere in my house is a little packet that has some of the original sketches, and he [John Fedderson] had shared with me a couple of recordings, and they were on a cassette tape, and at the time I had the names of the groups that were playing this, and I have no idea who they were now. I could, in fact you could probably communicated with John Fedderson—if you wanted to take an extra 15 minutes at some point—he could possibly remember who it was that he was listening to at that time, but they were traditional groups. Again, these were groups in Mali, and I think they were all—I don’t think there were any Ghanaian groups, but—there might have been, actually—I can’t remember.

There wasn’t a whole heck of a lot time to do this, and I knew going in that I had kind of an idea, anyway, that using genuine—you know, this was a departure from anything I
had ever done—I should state that—because I kind of feel like as an American, stealing from other cultures is an easy way to generate music, but not always the most legitimate way. I’ve kind of tried to avoid cultural references in what I’ve written if I can because I don’t live in those cultures, I don’t. I had never sat in an African drumming ensemble. So, “Inspired by,” is about as far as it goes, but I’m fairly certain that I probably incorporated a couple patters from whatever it was that he’d given me to listen to, but I was more inspired by the spirit of it than the intricacies and minutia of patterning, and I would never achieve it anyway knowing that, so I didn’t want to have it be an obvious drum set pattern per say, I know that. That might be why there are some irregularities in the bell pattern, and such, because I didn’t want to just set it up to be an absolute groove, but I can still—you know, if you’ll be patient with me, this is a good week coming up, I can dig in and see if I can find that. It’s in my office somewhere at home in a folder, I do keep these things. So, if that’s really important to you I can figure that out, but I’m pretty sure that there isn’t anything that’s absolutely direct.

Now the idea of the antiphonality, the solo parts, and the general form of ensembles and soloing, I was inspired by that, and I was incorporating that, and having an opening solo— which really would’ve been a djembe solo in the beginning, looking at the printing of it—these little improvisational things were just similar to what is done in a traditional Malian ensemble. But, I don’t know that you’re going to find any absolute direct rhythms from West Africa, rather than just the general framework.
NJM: Right. I was going to point out the call and response that is used, as well.

CD: Yes, and that’s absolutely stolen from the original style and music.

NJM: Yes, and a lot of the polyrhythmic figures, like [sings rhythmic pattern from the piece].

CD: Yep!

NJM: Those are the things that jump out to me the most, and, it’s as you said, the irregularities of the bell pattern. It’s funny because we have a hand drumming class here at OSU, and we’ve worked a lot on the Bembe pattern\textsuperscript{256}, and so every time I would go to sit down to practice this piece when I first began working on it, I would go to the cowbell and I would want to play [sings the Bembe bell pattern].

CD: [laughs] Right.

NJM: Just automatically! Nope, that’s not it! [laughs]

CD: No. You know, that’s probably an irritant for folks who have actually studied this, and again I—because of the sort of creed that I don’t want to pretend to know what I

\textsuperscript{256} Bembe is a pattern used in Yoruba music.
don’t know—I decided to use it more as a—stay kind of in the groove stylization of it, but not really steal the gongkaguï part, or any of the parts. It’s a strange amalgam, and maybe that was one of the things that I kind of had resistance about publishing it is that because it doesn’t—although it sounds very Africanized—it certainly is not. I know Kevin Volans\textsuperscript{257} has had problems with this too, and he has that much more genuine connection to that [African] culture, but even he says that this is not African music. I didn’t want anybody to think this was African music, or that it is just straight drum set with timpani, which there are solos out there, which you know, that are kind of just drum set pieces for timpani. I wanted it to be kind of an exploration of this man’s [Fedderson’s]—the two halves of this guy’s soul, his timpani soul and his African drumming soul, but that’s kind of where it ended in that way. If you happen to stumble on the [brief moment of drop out in the telephone connection] genuinely, from Mali, that’s great, but I won’t be able to guide you to that.

NJM: I understand. I was also going to point out the playing spot differences on the 23-inch drum very much feels like a djembe solo, moving from the edge to the center.

CD: Yes, that’s exactly where that’s coming from—and the dead strokes. Originally I had considered putting rim shots in, too. I think I proposed that to John, and he said, “Won’t be doing any of those.”

\textsuperscript{257} Kevin Volans is a post-minimalist South African composer.
NJM: [laughs]

CD: And he’s right, he’s right. There is a way to do them that they won’t damage the baring edge, but to put that into the piece, and he was real reticent to do it, I said, “Okay, that’s cool.”

NJM: And so then, with the lyrical section that begins in measure 75, in terms of the pitches and the melody used, what is the inspiration of this section? I was speculating that maybe you were hinting at a talking-drum-like affect?

CD: Yes, you could certainly see that. Part of it is just to have a lyrical phrase kind of in Africanization of course is not nearly as complex as it would be if it were played on talking drum, but there also is just the reality of the range of the drums, and John is a very lyrical guy on the timpani, I mean he can play double bass parts as any really great timpanist can, and he likes dong that, so it was just to get a little bit of melody in and still stay true to the groove of the piece. I could have been more adventurous in that, as well, pitch-wise, but I thought the reality of it was I wanted it to be something he could play fairly quickly and try to make the interest in it more about the proportions than about the extensive melodic-ness of it, if that makes any sense.

NJM: Right. So then referring to this same section, but geared more towards the actual physical execution: do you want the performer to strive for a very seamless arrival on
each pitch, or could there be some sort of audible glissando-ing to each pitch within the line?

CD: Yes, I mean you know that will stand as a timpani interpretation question, which, for me, if you don’t delay glissing for at least a few milliseconds, then the origin from whence the pitch is moving makes the gliss less tonal. I think you should always—I mean, I say always, but really, as much as possible—delay very slightly the moment of gliss so that the departure pitch is audible to the listener. If you gliss immediately you’re going to get more of a texture, but less of a tonal reference point, so I guess if I were to get into the nitty-gritty, I would want there to be an ever so slight delay, not so that it’s audibly heard as a delay and then a gliss, but just so that you have a point of reference. So that’s a performance practice aspect of, kind of really any glissing, even in Bartók and things like that. You kind of need to know where things are coming from before you depart from them.

NJM: Right, great.

CD: I don’t know if that works on talking drum in the same way, but it probably does.

NJM: In this section there’s so much mixed meter and certain repeated phrases all using different parts of the bar. I wonder: what kind of interpretation of this do you prefer?

258 This is in reference to a standard timpani excerpt from the fourth movement of Béla Bartók’s Concerto for Orchestra that utilizes rapid pedaling on all of the timpani.
One idea that I was thinking about recently was that it could almost sound very improvisatory, this section. The lack of stressing of the different meters, or subdivisions, rather, at least as much as in the other sections [of the piece], since in the outer sections you can audibly hear more where the beat is, and it’s not as compound and odd-metered. That sort of slow arrival to pitches can kind of lend itself to the improvisatory feel, but if that’s not necessarily your point of view—

CD: That’s a great question, what a musical question, and of course the easy answer is to say that both work. If you adhere to a metric sense of tension—it exists, it’s not always the right choice in anything we play, but it’s there. The improvisational thing could be lovely. The main thing is that whether you are—you know, the timpani, when glissing and when playing odd groupings and all, can end up being very kind of dull and boring, actually.

NJM: [laughs]

CD: I want to make sure that no matter what—and what I teach here [at the University of North Texas] is a series of “C” words that I talk about with people, the first one being correctness. We don’t go any further until we have correctness in placement, but the next one is clarity, and timpani are one of the more difficult instruments to achieve clarity on. I like whatever we—I—do to have clarity to it, a sharp edge to it, because if it’s a little sloppy, if it’s a little undefined, then people lose interest. Either way you’re saying could
work, as long as your intent is clear. And if it doesn’t—for me to say there’s a specific one way or the other probably would be wrong on my part, but the idea of achieving clarity in each figure, in each phrase-let, in each grouping, so that it’s true to itself. This is because the next word in my collection of “C” words is consistency, and in a lot of cases with timpani music, if you can play patterns regardless of where they are in the metric positioning and they’re consistent then people will hear them as being related; there’s a correspondence. It isn’t so much maybe about the meter. What I think in a lot of cases (in my writing, anyway), is the meter gives me a frame to paint within, to paint in between, but ultimately the performer can decide whether the frame is the right one for their living room, for what it’s worth.

If you wanted to at some point to send me a little recording of what you’re doing, even if it’s just a kind of rough run or something, I’d be happy to comment on that, and that might illuminate some things, as well.

NJM: Yes, absolutely. If you would be willing to watch that, then I would love to send you something!

CD: Oh, absolutely, and again, we’re coming into a very nice period where house cleaning is the number one problem, and other than that I have some time.
NJM: Great. Alright, so, with regard to the cadenza, it says, “Play various djembe-like rhythms,” so I assume, then, that the intent is for the cadenza to stylistically have that sort of West African feel to it?

CD: Yes, and it really is when folks do that—not on the timpani, of course, on djembe—it’s a fairly virtuosic thing, so it would be nice to think about what you’re saying. Again, this was for John [Fedderson] to play, and originally it [the cadenza] was just to give him an option to be really creative. Sometimes it can be a mistake to hand these things over to folks and expect them to come up with something, but because it is guiding, I would hope that someone would go to a really good West African djembe recording and just kind of see what they can create. [pause] The lengths [of the fermati] kind of relate to how important they should be. I don’t think that they should be considerably longer than it appears. Just have fun with it!

NJM: And so then I guess with the optional opening cadenza, the idea is similar? To be virtuosic?

CD: Yes. It seems like the solos that happen in the beginning of the piece—they’re shorter and they tend to be little bursts of creativity on the part of the lead drummer. It’s an attention-getting scenario, and so it shouldn’t consume a majority of time. In proportion to the piece it should be fairly brief, but attention-getting, I guess, and that’s how I think it seems to be. It’s a call to order. What I’ve witness in the drumming—of
course, what we have here [at UNT] is not—Gideon [Alorwoyie]\(^{259}\) is a Ghanaian master drummer, and so it’s Ewe drumming, which is a little different, although, from a peripheral standpoint it seems to have some structural similarities to [Malian drumming]—but they don’t use djembes, and such.

NJM: Taking a step away from this piece, which you had said was a departure for you: can you talk a little about your compositional process, in general? What are your interests? How do you decide to write certain pieces? Can you talk about that whole side of your career?

CD: Sure, and I’ll try not to make this as boring as it’s tending to be.

NJM: [laughs]

CD: I love to write when I get the chance and I’ve had actually a fairly difficult period with that in the past three years. I wrote virtually nothing, had a couple of—actually, your teacher’s [Susan Powell]\(^{260}\) piece, Dr. Powell’s piece, was one of the ones where I said, “You know, that one barely got half-baked, and we really have to go back to that

\(^{259}\) Gideon F. Alorwoyie is a professor of music, principal dancer and choreographer, and director of the African Percussion Ensemble at the University of North Texas. Originally from Ghana, he is considered by many to be one of Ghana’s foremost virtuosos of the country’s traditional music and dance.

\(^{260}\) Dr. Susan Powell is the professor and director of percussion studies at the Ohio State University. At the time of this writing, the author of this document is currently studying percussion with Dr. Powell.
and fix it.” She did a beautiful job, and it was really an honor to have her include that piece [in her 2011 PASIC performance], and she seemed to like it okay, but it really was only about half conceived, and I know what I want to do with it, it’s waiting for me, it’s one of the two projects that’s kind of sitting there, maybe even a little higher than simmer at this point, but because I think it’s worthy—I got started well with it. I think it was getting off to a good start, so I just have to go back to it.

Even before I had made the decision to be a percussionist, I was kind of toying with the idea of pursuing composition. In high school I went to the composition teacher at the local university and showed him some stuff, and he said, “Needs some work, you’re not really ready to do this, have you got anything else?” I said, “Well, I’m a percussionist.” He said, “Well, what you should do is see if you can get in the percussion department and once you’re here, you can kind of move over if you feel like that’s what you want to do.” That was really great advice because I really wasn’t ready at the time to do that, and I did exactly that, and toyed with the idea of a double major, and the chancellor of our school [North Carolina School of the Arts] was a man named Robert Suderburg, who actually wrote a percussion concerto that almost never gets played now, but—I can’t quite think of the name; Michael Bookspan and the Philly Orchestra premiered it back in the late seventies, or the early eighties, actually. But he [Suderburg] said, “Don’t do it, you’re serving multiple mistresses, bad idea, focus on your percussion, and if you get an idea every once in a while, then you’ll write it down.” So I sort of took that to heart, and realized that maybe that was the right direction. Almost 40 year later, I think I made the
right choice in that way, but still, the very urge to write, the ideas have always been there.

I studied throughout my entire undergraduate career, and one of the things that my teacher—whose music you’ve never heard because he barely published anything. He’s still alive, my primary teacher, and I took—I had four people with whom I took formal composition lessons with over the years, in addition to showing things to others—but the one teacher who I refer to now, his name is Sherwood Shaffer, to whom I dedicated Mourning Dove Sonnet. He was great in that he would take anything you would bring him, and he would look at it from just a standpoint of, “What can we do with this?” It was a mold. He was very much the kind of composer who say, got a lump of clay, you stick your finger in it, and says, “Let’s see what we can do with that motive…,” and etc., etc.

That’s the way he encouraged me to always think about things but he did even then, before world music was really just consuming everything, he said, “You know, our culture is not one that is necessarily so obvious,”—unless we’re going to write blues, jazz, ragtime—we can’t really write the music of the Japanese, we can’t write the music of any of the more obvious and seductive cultural music sources. Even though I’m a drummer, he said, “Try to avoid that, and then you’ll come up with something new.” He was—is—right, and it makes it much harder to try to decide what Stravinsky says is to, “Decide what you don’t want to write before you begin to write,” to sort of “x”
everything off of your list. That makes your prospects fairly minimal, actually. I do that still to this day. I still kind of decide what do I not want to write so that people know exactly where I’ve gotten the rhythms.

That’s why this piece [Prelude No. 3] is really unique in that way. I have one other piece where there are some Asian references. It’s actually the fourth prelude, which I do hope to clean up here very soon, and it was written for a Taiwanese timpanist. I saw him using pentatonics in that, and there is a reference to an ancient Chinese poem called, “The Bones of Guangzhou.” That has yet to come out. People have—similar to this one [Prelude No. 3]—occasionally played it because it is sort of circulating out there. There was absolutely no—nothing other than the fact that I was using pentatonics—references to any specific Asian music of any kind in there.

For me what this does is it sort of pigeon holes me into thinking. So, to synopsize what I’ve just told you is that I try to avoid obvious cultural references. If one breaks in here or there, it’s not usually conscious, and because it makes composers kind of obligated to do something. If I’m writing a blues scale, for example, then I’m sort of obligated to stick with it, to some extent, because otherwise it kind of wants to go places that people want it to go, so in a lot of pieces that I’ve written have been in the avoidance of obvious references because I think it kind of limits the creative act, and the creative act is one of discovery, you know? It’s a daunting thing, but I think the greats were always able to do it, so I have to, as well. Whether or not I achieve it, I still want to sort of emulate that.
NJM: It’s interesting because I read some of Dave Wolf’s D.M.A. document, and in his introduction he starts off by saying something like, “You always know when you’re listening to Christopher Deane’s music,” and I think that’s very true, given what you were just talking about with regard to your process and how you get ideas. So much of what I associate with your music is the interesting sounds that you achieve, especially in pieces like *Vespertine Formations* or *Mourning Dove Sonnet*. Those pieces are very different from each other in terms of content, but the way in which you manipulated sounds differently in each piece, as different as they are, they each become associated to your voice.

CD: *Well I appreciate that so much, and boy, I always just hope that the piece is true to itself.*

NJM: Right!

CD: *And so much of the literature written for us, no offense to anybody, but—*

NJM: [laughs]

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This is referring to the DMA document, “The Published Vibraphone Music of Christopher Deane: An examination and comparison of Mourning Dove Sonnet and The Apocryphal Still Life,” by Dr. David Malcom Wolf.
CD: They kind of look round and go, “Now it’s time for the kitchen sink, and now we have to have the groove period, and now it’s really pretty...,” and I—that’s an essay for me, I mean you’re [NJM] trying to write a paper that’s focused on timpani, so you want to stay true to that. The moment that you start expounding for four or five pages on the marimba, that’s when you’ve lost your focus, so—by the way, don’t do that.

NJM: [laughs]

CD: At any rate, I like to go—again, my teacher, Sherwood Shaffer, was so great about encouraging all of his students to stay with the essay, to stay with the material. Recycling of material in creative and variational ways is how you maintain an internal personality, and each piece kind of has to stay within itself. This doesn’t mean that there can’t—it always has to be perceived, but in almost all cases I have something that is sort of remaining that’s either covert or overt that connects the material. I know even Al Otte kind of criticized me for this. He said, “You know you should let it go for a while, don’t be so structural,” but it’s how I kind of stay in what I think is a legitimacy of the material. It is to sort of stay within it somehow. There aren’t any strict guidelines, in that way, but usually the pieces tell me kind of where they want to go and they usually want to go with less schizophrenia than maybe some other people are happy with.

NJM: I know given that you wrote this piece for John Fedderson, and—I’m sorry, I forgot her name already, but—
CD: Oh, Carol Stumpf!

NJM: Yes!

CD: And she’s tributed on the Prelude No. 1.

NJM: Yes. Do you usually write for people, and sort of keep these people’s personalities in mind while you’re writing? I guess the question is: What comes first, the chicken or the egg?

CD: Yes, well, not always anything, but—[pauses] Etude for a Quiet Hall, which is my first published piece, I dedicated to my post important percussion teachers, James Massie Johnson, although he could barely hold four mallets.

NJM: [laughs]

CD: His wife told me that he would occasionally walk over to their little four octave marimba and kind of plunk on it a little bit, but he was a timpanist, and he had been the timpanist in the St. Louis Symphony. He was not a great technical teacher—[pauses]. He was the kind of guy you would bring a snare drum etude in for and you would play it
and he would just guide you. He was a [Saul] Goodman\textsuperscript{262} student and he also studied with Goodman’s teacher, Alfred Friese\textsuperscript{263}, but he was a great musician. I mean, ears that were just unbelievable, and he would point out so many great things and he would actually just listen to something, and if I think musical thoughts, for the most part, it’s because of that guy. Just a great, beautiful timpani sound, just a great timpanist, and a great musician. But I wasn’t thinking of him when I wrote that [Etude for a Quiet Hall], in fact. I wrote that for a fellow student and then he didn’t play it on his recital so it kind of sat in a box for a couple of years, and that’s okay, that was fine.

Right after those pieces, generally, people started preceding the composition. With Carol [Stumpf], she said, “Write me something,” so she was in there, and I know that she was very sensitive about the way she could play things, but she also has a very feisty, fiery side, so that was easy to match her playing, those rhythms. So, yes, she was completely in that piece top to bottom, and John [Fedderson] in his piece.

\textsuperscript{262} Saul Goodman was the principal timpanist of the New York Philharmonic from 1926 until 1972. He was also on faculty at the Juilliard School during this time, published the timpani method book, \textit{Modern Method for Tympani}, and was one of the first professional timpanists to introduce his own line of mass-manufactured timpani mallets.

\textsuperscript{263} Alfred Friese was the principal timpanist with the Pittsburgh Symphony at the turn of the 20\textsuperscript{th} century, later going on to serving as the principal timpanist with the New York Philharmonic beginning in 1909. He published the timpani method book, \textit{The Friese-Lepak Timpani Method}. 
Mark Ford\textsuperscript{264} had asked me to write a marimba solo, and he had never recorded anything yet. We were fairly newly acquainted at that time, and he was playing Three Shells, which was a piece that I dedicate to my sister, who is not a musician. That piece was sort of tied in with all kinds of—our father had passed away, and we were all kind of wrestling with it—she’s a pen and ink artist and so I stole the title from one of her pieces and used “three” in the piece. There’s a waltz in there, and I wrote it for three primary motives that all share information, we’re three siblings, you can kind of see where the extra-musical thing for me is, and there’s usually something like that in there, so it’s easy, that’s nice, it’s a motivational factor. I have a little trouble just writing absolute, purely abstract music because I lack a motivation. I kind of like to have a—whether it’s obvious or not—a little narrative going on.

So I guess the answer, after you’ve waited so long for it is most of the time I like visualizing who I’m writing for. It’s much easier that way because then you take the energies that you sort of know from these folks. But, again, one piece I wrote I didn’t attribute to anybody, and then the person to whom it needed to be attributed sort of appeared, and that piece is one of the two I have to finish, like your teacher’s. I hope that, somehow, you have something that you can use after all of that.

NJM: Yes, definitely. From there, my final question—and I feel like you started to answer it a little bit when you were talking about the lost Prelude No. 2—goes back to

\textsuperscript{264} Mark Ford is the coordinator of percussion activities at the University of North Texas, in addition to being a well-known marimba soloist and composer.
what the thesis of my paper is. Taking a step back for a moment, another reason for why I wanted to write about timpani solos is because I simply love timpani solos—I think that they can be a lot of fun, I think that they’re very musical, and I like programming then when I can. I’ve always perceived, however, that timpani solos can sometimes get a bad rap. People think that they can be kind of cheesy, which some of them are, but there’s a lot of cheesy music for every instrument!

CD: Yes.

NJM: And so I thought that by giving more attention to some of these solos, then maybe the outcome would be that there would be a little more validity—to what I perceived has a sometimes unfair lack of validity—to the genre. I just wonder what do you think about timpani solos? What do you think about the genre, the lack of programming for timpani solos in recitals outside of academia, basically? Just your thoughts on this topic.

CD: Well, number one: timpani were conceived of as a large ensemble instrument, although if you go back to the Philidor Brothers\textsuperscript{265}, obviously they were doing duets before we had any music at all, so it’s earliest heritage was one of potential as a solo instrument. I think it’s such a dramatic instrument, but because of that it’s overstated by a lot of people so that it’s kind of obligatorily loud and fast and messy. The

\footnote{\textsuperscript{265} The Philidor Brothers consisted of Andrè, Jacques, and Alexandre Philidor. They were court musicians of Louis XIII and are credited with writing and performing their \textit{March for Two Pairs of Kettledrums} in the late 17\textsuperscript{th} century.}
instruments—all instruments—sort of tell us what they want us to do with them if we listen. That’s another lesson I for from my teacher [Sherwood Shaffer], he would say. “You don’t want to write a timpani piece for a violin,”—that’s my quote, not his, but it’s obvious, the truth of that. That’s one of the difficulties in waiting for the instrument to speak to you, you really have to listen to it. That doesn’t mean that you can’t give it a new angle, and that’s always what I’m looking for, like if I can find something that is new to me on the instrument, then wow, I’m making a contribution, which is my greatest desire to do something that is of value. No need to replicate, I don’t want to write Jan Williams’ piece again, he did a great job with it, or Bergamo’s, or Bill Cahn’s, those are all masterpieces, so no reason to write all those again, they’ve done it.

I believe in writing literature for anything that I write which means—you know, somebody asked me about some of the more revolutionary musics that have been written and Elliot Carter’s timpani pieces were revolutionary in their day, I mean they were, they were. People proclaimed them unplayable, and a lot of timpanists said that’s just a bunch of garbage, and that’s not timpani music, and they were revolutionary. Of course it’s been stated that a revolution is an object moving in a curve that eventually comes right back to where it started, so I don’t really want to write revolutionary music, that’s my excuse, but I do want to try to illuminate some aspect on the instrument that has not been either illuminated or studied or understood, but that doesn’t mean I can’t write very obvious timpani music, but I think most of the music I appreciate is music that seems to listen to the instrument, finds something new, and the Carter pieces are fantastic
examples of a great composer looking at an instrument and realizing—with the help from Jan Williams—so many aspects to that instrument that had not been paid any attention to before, and when you talk about things like the Moto Perpetuo\textsuperscript{266}, it’s not really a timpani piece, but you can’t play it on any other instrument than timpani. It’s great in that way in that it illuminates a quality of sound, a voice on the instrument that has not been explored before, and it’s not cheap, and he stays in it. It’s true of all of those pieces, and it blows my mind when people say, “Oh, those old pieces, we don’t need to play those anymore,” and that’s like saying we don’t need to play the sonatas of Johann Sebastian Bach anymore, those are old too. They stand so strongly in our history, but still these pieces of music still live well, and by golly, it’s wonderful music, it’s amazing, if it’s done well.

Years ago I had a job that was a pretty unique job. It was an artist in residence job in North Carolina. They had a program where they would stick quote-on-quote “artists” in all the 52 community colleges [in the state]. I auditioned for this, got into it, not really knowing exactly what I would do with it. I just knew that it as a paycheck with benefits, and what they heck. They sent me to Pitt County, which was near East Carolina [University]. That was great for me because I stole lessons with Harold Jones\textsuperscript{267}, and it was wonderful for me. I also played in every high school gymnasium, and all the Church nutrition clubs, and rest homes, and elementary schools. Every once in a while they would allow me to do a real recital where I would play, and I would do a couple of the

\textsuperscript{266} Moto Perpetuo is one of the movements in Elliot Carter’s Eight Pieces for Four Timpani.

\textsuperscript{267} Harold Jones was the Professor of Percussion at East Carolina University from 1961 until 1996.
Carter pieces. I had these old beat up timpani that I would haul along with my vibraphone and hammered dulcimer and xylophone and occasionally a marimba, if there was one. I would do these, and invariably when I played the Carter pieces, people would come say, “Those are great, I loved those!” These are people that were grey-haired old ladies in Farmville, North Carolina that had never heard a timpani solo before, but if you do it well, if you really present the instrument as a real musical instrument, not just a bash vest, people will get it, because it is a unique voice, and it’s a beautiful voice if it’s done right.

I think just like people who play tuba recitals and people who play contrabassoon solos and things like that, it’s probably never going to be at the center of most people’s listening pleasure, but if it’s done well, it’s absolutely as interesting and musically satisfying depending, again, on the literature has to be thoughtful for it, and I’ve written some things for it that you’ll never see because it didn’t work, it wasn’t good. I have a piece that’s sort of been on the shelf for a while, it’s timpani with sampled timpani sounds, all different possibilities. I think I need to dig it out and go back to it, but it really wasn’t finding uniqueness to it, and so there was no reason to clog the airwaves with it. By the way, we’ve talked a long time, are you okay? Are we doing what you need to do here?

NJM: Oh, yes! For sure, I’m fine. [laughs]
CD: Okay, that’s good. You can always feel free to say, “That’s enough of that, Professor Deane, let’s move on!”

NJM: No! [laughs] You’re doing just fine.

CD: I love the timpani and I do think that it’s really powerful when it’s played well, and can be the centerpiece of a recital, again, if it’s done—you know, one of the things that people make a large mistake with the timpani, and its somewhat true with the marimba—the lower range of the marimba—but so true of the timpani is there’s something I refer to in my teaching as the “accent to non акcent ration,” and this is my own little way of approaching this. I did get together with our [UNT] “Physics for Musicians” guy, and time would stand still when that man was in the room, he was brilliant, but rarely did I ever get to exactly what it is that I wanted to get to, but we talked about this in relation to vibraphone, marimba, and timpani: the idea of accents vs. non-accents, and how they affect their relationships. On the vibraphone you can wallop the ever-loving you-know-what out of a vibraphone bar and then practically ghost the next five notes and they’re all still fairly clearly heard. With marimba, and especially on the lower register, this is not the same case. Accenting heavily on the marimba can devalue the next three or four notes because of the resonance factor, it just leaps out of the instrument. The same things are true with timpani, and I think the mistake a lot of people make is that they look at accents as being one-dimensional. You accent that note and then you don’t worry about the others, and ghosting notes turns out to be mumbling on the instrument.
The reason a lot of timpani solos don’t work is people forget that clarity of the material has to be there, regardless of groove, accents, and all, so there has to be a much closer relationship of the accents to the non-accented. Otherwise it comes off being rather mumble-y, and so that’s one of the things I guide my students to, is to find quote “balance,” voice balance, between the accented and non-accented notes. Some accents are dramatic, but I tend to think of timpani accents as being more emphatic than erratic, more static, more dramatic. So the emphatic accents tend to work better on timpani than let’s just say the low end of the marimba, or the marimba, in general. There’s just an exponential leap of sound, of resonance production. When you hit the instrument, which, again, just kind of makes it all an “accent-fest.” So—and you can think about that in relation to even Prelude No. 3—there are accents written, so you have to think about what’s happening if the unaccented notes aren’t heard, then they don’t really mean anything. So it’s a challenge.

NJM: It’s interesting because I have studied timpani with some very orchestral players and when you talk about technique and working on excerpts and things of that nature, you feel like you’re almost disrespecting the instrument if you don’t do certain things a certain way, and I have colleagues who will approach things like their orchestra or band parts in that way, but I’m always amazed when I either work with a student on a timpani solo that they’re working on, or if I’ve sat in on auditions or juries, that there seems to be a sense of abandon when they play these solos, that I know they wouldn’t have if they were playing a Beethoven timpani excerpt, for example.
CD: Right. I like your though process very much because one of the little categories I put this into—and you can see if this resonates with how you’re perceiving it—is a lot of times orchestral timpanists—and I’ve studied with some really great ones—but they tend to hear sometimes more with their attitude, and with a sense of tradition, than they’re actually listening with their ears, and if you don’t hear all the information, then it doesn’t matter. What’s curious, though, is—and the Brits are pretty terrible about this—is that they just beat the ever-loving you-know-what out of the drums, and they don’t seem to hear it. But you listen to the recordings, and there’s this huge imbalance between the head tensions, between the different drums, and for me that’s just lack of artistry.

It’s—you know, one of the guys whose become fairly big here, Ed Stephan, he was the timpanist of the Fort Worth Symphony down here, and he is a product of our institution, though it was before I got here, and his main mentor was Stan Leonard in Pittsburgh, which is where Ed is now, of course. When Ed was here and he was playing with the Fort Worth Symphony for eight years, it was before he started getting ready for the Dallas Symphony audition, and he came to play—he was playing for lots of people, and he came to play for me—and I said, “Well, Ed, I think there’s one thing that you and I probably won’t come to an agreement on is the idea of using the down-stroke as your primary source of accenting.” He said, “Yes, but you’ve heard me play in the orchestra, so you surely don’t hear it when I play with them?” I said, “No, actually, I do, and in my

268 Stanley Leonard was the principal timpanist with the Pittsburgh Symphony from 1956 until 1994, during which time he also served on the percussion faculties of Carnegie Mellon and Duquesne Universities. Additionally, he has written numerous works for percussion.
opinion if you don’t change this before the Dallas audition, I don’t think it’s going to go your way.” So, to his credit, as an already highly accomplished player, he was able to do it, and it immediately caused the drumhead to sing more clearly, and the balance between the different surface tensions was so much more clear and, what can I say, he won the job, and he, I think he even at an advanced stage once explained that its an issue oh physics—tone production—it’s not an issue of style or tradition or whatever, it’s all about what is the thin membrane doing when it’s vibrating.

All of the other instruments have to vibrate with an evenness to maintain vibrancy, and a timpani head has to do the same, so we have to change what we do sometimes on these instruments when we play loud. In playing soft, it’s just as simple as making contact with the drumhead. I’ve really, over the years, taken great lessons with great timpanists, and I’ve sort of amalgamated everything I’ve learned into the understanding that it really boils down to what the people are hearing. It doesn’t matter what [Saul] Goodman did, or [Cloyd] Duff did, or [Fred] Hinger, although they all did great things, and they’re the fawns of what everybody does not, but it boils down to what’s happening when you, Nomi, are playing the timpani, and how evenly the notes are perceived, because if they ain’t all there when you hear a recording played back, then you have to do something, you have to change something. But, if you do this, the amazing thing is, if you do this, you will win. People will like what you’re doing, and they don’t know why, all they know

269 Cloyd Duff was the principal timpanist of the Cleveland Orchestra from 1942 until 1981. He developed his on school of timpani technique that continues to be taught at the annual Cloyd Duff Timpani Masterclass.
is that they’re hearing all the information. It’s about sort of remembering to listen with your ears, not your attitude or your programming, which can be kind of hard. I have kind of a de-programming program here [at UNT] going on with my timpani students.

NJM: Okay, well, this has been wonderful. Thank you so much for taking the time out to talk to me, and just for being such a valuable resource, and just for writing such amazing music.

CD: Oh, you’re so kind. Well, there’s lots to come. One of the things I said at the end of my clinic at PASIC was over the summer—I’ll share this little fanciful thing, although it’s absolutely true—this summer we took a vacation for the first time I think in five years, and we went to Santa Fe, which is really quite a nice place to go. It’s expensive, but if you just want to go and wander around town for a couple of days it’s really special, lots of great restaurants, and just a nice atmosphere, and we had never been, we have been in this part of the country now for 16 years, and just haven’t gone.

We went, and I was in the museum of the “Hall of the Governors,” it’s a nice museum, it’s got lots of Americana in it, and in one of the exhibits I could see my reflection in the glass, and it just hit me: I wonder when it is that somebody becomes a museum exhibit? At what point are you done, and people just say, “He was a nice old man who used to write stuff.” I think when it happens, it’s when you stop thinking with originality, when you stop questing for newness, and I can be quite honest with you to say I’m not done yet,
in fact I feel kind of, after a three-year hiatus, I feel invigorated again, I think. I still want to explore these instruments, and make you happy to listen to them. I hope I can do that, or play them. So, stay tuned. But thank you for your interest, and I’m incredibly flattered and honored that you would include my music amongst these other pieces, which I think are all masterpieces. I love our instruments, it’s almost to the point of anthropomorphism, the way I feel about them. They have voices and they just want me to listen to them and figure out what we can do to help them to be unique, and I’m going to continue to try to do that, and again, if I feel like I’m not, I’ll stop, I promise, but I love them too.