The Notation and Engraving of Percussion in Modern Wind Band Composition

D.M.A. Document

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Musical Arts in the Graduate School of The Ohio State University

By

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2016

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Abstract

The role of the percussionist in the large ensemble has changed greatly over the last few decades and a staggering amount since its introduction to the medium. What has failed to evolve at the same pace is the way in which composers notate for percussion. The history of other instruments has led to a standardized notation with few techniques or possibilities left unexplored. Due to the ever-evolving nature of percussion, composers and publishers often find themselves having to create new markings to express their intentions. These new markings lead to discrepancies between different composers writing for the same thing, which leads to confusion for the percussion section.

By examining a major, contemporary work by a well-known composer, this document will create a set of rules of engraving for the composer and publisher. Juilliard faculty member Robert Beaser's *Manhattan Roll* will be used to demonstrate many frustrations encountered by the percussion section. This document will then present solutions to these problems and explain how and why said problems should be avoided. Should these established rules be followed, a more standard notation can be achieved for percussion and in doing so, many inaccurate performances avoided. Concluding this document are appendices containing a re-engraving of the entire work including individual percussion parts along with the original music for comparison.

This document is dedicated to my mom for allowing me to bring home a drum set after our first trip to the music store.

Acknowledgements

First and foremost I wish to thank the many percussion instructors that continue to inspire and educate me. Without their guidance I would not be the performer or human being I am today. To Dr. Susan Powell and Mr. Joseph Krygier: I cannot accurately put into words the gratitude I have for your teachings. You have both inspired me since before I was your student and will continue to mesmerize me with your immense talent forever. To Dr. Christopher Norton, without whom I would not have the outlook on life I do now. Your talent, dedication, personality, and perhaps most important, humbleness, have taught me how to be a professional both as a performer and a person. Finally, to Mr. Tony Ferderber: you taught me from a young age what it would take to be a musician and inspired me to want to make this a career. Without the foundation I received from you, I would never have considered calling music my passion.

To my committee members, Dr. Susan Powell, Professor Katherine Borst Jones, Dr. Russel Mikkelson, and Dr. Thomas Wells, thank you for your willingness to serve on my committee and guidance through this process. Specifically to Dr. Mikkelson, thank you for posing your incredibly well thought out candidacy question that led to this document and for your assistance with the large ensemble aspects of my research.

To the Graduate Studies Chair, Dr. Patrick Woliver and to Becky Harrah, thank you for your help in completing this process and making sure I successfully navigated the requirements.

To Mark Rubinstein, thank you for giving me an escape from the rigors of practicing whenever I needed it in the form of my favorite hobby, audio recording, as well as an open door and listening ear whenever I needed to talk about why we do what we do.

To my family and friends, both near and far, thank you for your unwavering support. I would not have made it through the past nine years without your help and kindness.

To Mom, Dad, Nan, and Pop, without you I would have never succeeded. There is no doubt in my mind. In the toughest days, your support helped me keep going. I will never be able to truly repay you for all you have given and sacrificed for me to be where I am today.

To Nomi Marcus and Lane Summerlin, thank you for being the best D.M.A. buddies I could have ever asked for. I am proud to call you colleagues and even prouder to call you dear friends. I would not have navigated the many trials had we not been through them together.

To the OSU Percussion Studio both now and throughout my undergrad, I was inspired by each and every one of you and pushed to reach my potential because I was always working with the best. To former D.M.A. colleague and friend, Johnny Mendoza, thank you for helping me see past the extraneous noise and staying focused on my goal. To Kim Burdett, thank you for driving to Warren all those years ago to teach me a lesson and cement my desire to be at OSU.

Finally, thank you to Caroline Kane and Schott Helicon Music/European American Music Distributors for allowing me to use Mr. Beaser's composition. Without your support this document would not have been possible.

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Chapter 1: Introduction

Given the state of classical music today, the role of the percussionist is drastically different from the times of Haydn or Mozart. As a performer, I have sat in many ensembles staring at music that is all but impossible to understand or accurately perform without having the composer on hand to answer a staggering number of questions. When a composer thinks of any sound for their work that fails to fall into the categories of strings, woodwinds, or brass that sound becomes the responsibility of the percussion section. The increased role within a large ensemble is relished by most but what failed to keep pace with the increase in use was the way in which percussion was notated. Many composers took it upon themselves to try their hand at creating a new way to notate for the section, adapting the part to their own needs as a composer. After much research, there is a surprisingly minimal amount of material discussing exactly how to notate music for percussion. While there are some texts that explain the basics of notation, most devote very few pages to percussion. Furthermore, the topic has been largely neglected for decades in professional or scholarly texts. It is my hope that this document will invigorate a new generation of composers to spend time and effort thinking through their percussion parts and creating art which is more easily and accurately understood by the performer.

Statement of Problem/Need for Study

This document stands to be a useful reference to composers and publishers of music for contemporary wind band in the formatting of their percussion parts. It may also provide information to those writing in other media including but not limited to orchestra, chamber ensembles, or brass band. With the popularity of the collegiate wind band and the professional-level music being written for them, a detailed study into the engraving and formatting of what the percussionist performs from is warranted. The role of the percussionist has greatly evolved in the last half-century and is now expected to be proficient in any sound the composer can conceive. This rise in new sounds and addition of more percussionists to a single piece of music has happened without any new notation standards. By addressing this void, the document will serve as a guide to composers and publishers when notating their works. Additionally, this will bridge a gap between composers and percussionists hopefully alleviating any confusion within the section and allowing for a more accurate performance of the composer's piece.

Procedures/Methods Used

The procedures used to complete this document involved the obtaining and perusal of full scores and percussion section parts from multiple composers in order to select a work to study in detail and attempt to create more user-friendly parts. As some composers self-publish and others distribute through a publishing company contact was made with both resources. The initial list of works to consider was compiled after many hours in both the office of Dr. Russel Mikkelson, Director of Bands at The Ohio State University and The Ohio State University Band Library. After selecting a piece to study,

contact was made with the composer to determine how and why they formatted the parts as they are presented to the performer. Once a better understanding of the composer's intentions were reached, the author attempted to re-engrave the work in a more user-friendly way by employing the standards laid out within this document. Though there are limited current resources for the notation standards of percussion it is widely accepted that there simply is no standard. The available resources were consulted through the OSU Library System and are presented within this document.

Parameters of Study/Scope

In the early stages of this project, during the author's Candidacy Exam, it was determined that the content of the music including the composer's orchestration should not be part of the discussion. What is being analyzed is if the music can physically be performed as it is presented. In each case, an attempt was made to preserve every note and marking written by the composer. Because percussion writing has changed so drastically in the last few decades, only pieces written within the last twenty-five years (1991) were considered for inclusion. This decision was also made based on the availability of electronic notation software for composers and publishers. This document does not contain a detailed analysis of any works, but rather focuses on the layout and engraving of percussion parts. While changes may be made to number of players or organization of parts, any changes to the composers music in terms of musical content is in no way a part of this document. For this document, Robert Beaser's composition for orchestra, later transcribed and revised by the composer for wind ensemble, *Manhattan Roll*, will be used as an example.

Organization of Document

The organization of this document was determined by a need to present necessary information followed by examples. Rather than present ideas as they occur within musical works, a detailed study of the available notation resources will be presented followed by the author's own suggestions for a standardized notation. Music will then be presented in its original form with the author's commentary. This study will be supplemented with notated examples in the author's suggested format. Great care was taken in the reproduction of the provided scores. Every angle and cut-off note, symbol, or word is shown exactly as it was received from the publisher and would be seen by the performer. All examples provided by the author, while still maintaining the composer's music and notes, were created in *Sibelius*. Permission to use musical examples was requested of Schott-Helicon Music Corporation (BMI). Permission was granted for the sole purpose of use in this document.

Chapter 2: Review of Notation Textbooks

As the typical composer comes from at least some amount of formal classical training, it is relevant to discuss the textbooks available on the topic of notation as they relate to writing for percussion. While the information in these texts is often useful to a composer it is important to note that, like any other performer, the percussionist does not spend time studying these texts in an effort to learn how a composer may write for them. That is to say, even though the text may give a symbol or notation to mean a certain thing, it is not guaranteed and should not be assumed the percussionist will already know this notation. This applies to any notation the texts may suggest for percussion and not any terms or symbols the percussionist should know and understand as a trained classical musician. To limit the scope of this review, I have decided to omit any text that does not specifically deal with notation. This omission includes all orchestration, composition, and arranging texts. Some of those texts were initially consulted, but ultimately the decision was made to narrow the scope of the review. An analysis of the notation texts will be presented in chronological order of publication date.

Music Notation and Terminology **(1914, rev. 1930)**

Written by Karl W. Gehrkens, former professor at the Oberlin Conservatory of Music, in 1914 and then revised in 1930 *Music Notation and Terminology* is a text focused on the most basic aspects of music notation. Most of the pages are spent

discussing notes, rhythm, and what standard music symbols such as flat and sharp mean. One of the final sections is titled "Musical Instruments" and details the instruments of the orchestra. Regarding percussion, Gehrkens states, "The kettle-drum is the most important member of the percussion family." He goes on to say "The other important members of the percussion family are shown on this and the following page, their use being so obvious as to require no detailed explanation."[1] The images of instruments included in this sentiment are the bass drum, cymbals, tambourine, bells, snare drum, and triangle.

***Modern Music Notation* (1961)**

Laszlo Boehm's reference and textbook, though relatively short and written in 1961, contains some basic information that seems to have been forgotten through the years. While aspects of the text are dated, many parts of the percussion sections should be revisited by composers and publishers today. Though only five pages are devoted to percussion, Boehm has some valuable tips. Within the seventh chapter he says, "For each percussion instrument used, a specific space on the staff is assigned, and kept throughout the composition."[2] He also notes that the implement desired should be written at the beginning of the line and that each entrance of a new instrument should be announced with that instruments name. Finally, Boehm says uncommon abbreviations should be

1. Karl W. Gehrkens, *Music Notation and Terminology*, rev. ed. (Chicago: Laidlaw Brothers, 1930), 126.

2. Laszlo Boehm, *Modern Music Notation* (New York: G. Schirmer, 1961), 48.

avoided as they are "difficult to figure out, they are easily misunderstood, and sources of serious mistakes."[3]

There are also moments with which I would greatly disagree. Showing it's age, the text says, "As a very general rule, composers only use four instruments of indefinite pitch: the triangle, the cymbals, the snare or one of the smaller drums, and the bass drum."[4] Boehm says later that all percussion parts should be written into a score and that score given to each member of the section and also says the score is better than parts. This could be agreeable if only a few instruments are used, but in terms of today's modern compositions the pages become too many in number to make performing from a score practical.

Music Notation **(1969)**

Of Gardner Read's 482-page text on how to notate music, only twenty pages are given to percussion. Within these pages Read spends much of the space discussing orchestration techniques and then how to notate them. While there is some basic correct information not seen before, such as percussion clefs, note-head shapes, and some techniques associated with accessory instruments, much of what he says is vague to the performer or outdated.

Read dedicates two entire pages to pictograms, or symbols, that represent instruments, instrument-specific techniques, sticks, and mallets. While it may seem

3. Boehm, 50.

4. Ibid., 49.

convenient to the composer, it should be obvious just by examining these pages that the ten different ways to notate music for the gong or tam-tam[5] will be confusing to the performer. The potential use of these symbols could be acceptable provided the composer use only one for each definition and that they also explain to the performer, with text, what the symbol represents. Leaving the knowledge of these symbols up to the performer is reckless and dangerous for any composer wishing to receive an accurate performance of their work. For instance, Read shows that an "x" written through the regular note-head indicates that cymbals should be crashed together whereas an "x" written above the regular note-head indicates the cymbal should be struck with a stick.[6] Assuming every performer knows these notations is unwise. Simply using plain text to describe the desired sound and technique is a much safer way to ensure an accurate performance.

The final aspect of the Read that is of great importance to anyone studying the text today is his instruction to write any percussion instrument of indefinite pitch on a single-line staff. He also states that should multiple instruments be required to be performed by one person, each instrument should get its own staff and they should be bracketed together with beams and stems connecting between staves.[7] While this was certainly the norm of the era, it is much easier to use a five-line-staff and employ the different lines and spaces for different instruments. This notation technique also assumes the composer will provide the performer with a key to what each line or space represents.

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5. Gardner Read, *Music Notation*, 2nd ed. (Boston: Allyn and Bacon, 1969), 366.

6. Ibid., 367.

7. Ibid., 368.

The use of multiple single-line staves is cumbersome and difficult to read in the best of situations and nearly impossible if used to the extreme.

***Standardization of Percussion Notation* (1973)**

Compiled and published by the Percussive Arts Society (PAS) in 1973, this six-page booklet sets out to establish standard rules to follow when notating for percussion. Though written over four decades ago, the information contained within is almost entirely still relevant. It would stand to reason that were a composer interested in how to better notate for any instrument they would look into the professional organization that contains those musicians. Even with the age of this publication, the material within should be regarded as a wonderful starting point.

Among the information found most useful, the composer is urged to inform each player what instruments they are responsible for as well as if more than one player is required to complete a part. A great point made is that a percussion score is useful only "to the extent that it allows the music and page turns to be manageable."[8] A discussion on the notation of rolls is presented and although brief, provides the information needed. A list of appropriate implements for keyboard instruments is given along with common abbreviations for many instruments.

There are still some small aspects of this guide that deserve updating. First, PAS advocates the use of a one-line staff for single instruments. This is acceptable if that is the only instrument being performed, but I find that is rarely the case anymore. Also, the

8. Percussive Arts Society, *Standardization of Percussion Notation* (Indianapolis: Percussive Arts Society, 1973), 1.

final page is a listing of pitched instruments and their ranges. This list is in need of updating as the range of many instruments has grown considerably since publication. Finally, in this listing, the timpani are shown to have a potential range down to cello C.[9] Though the practical range of D is listed and the C is only contained within parentheses, this gives the composer the idea that the C could possibly be reached either with a certain model or size drum. On a contemporary 32" timpano, the standard range is D-A and to reach the C the drum would have to be tuned down with a key and the head would be so loose a pitch would hardly be recognizable.

***New Music Notation* (1976)**

While this text by David Cope's primary focus is the notation of "new" music and centered around that of composers like Berio, Crumb, Stockhausen, and Varese, it is worth mentioning for it's attempt to create a set of symbols to be used exclusively in place of text. Twelve of the 122 pages are devoted to percussion and is almost entirely comprised of tables showing a symbol, it's meaning, which composer it came from, and some other symbol that could be or has been used.

Cope is good to set out his intent in that these symbols should be used exclusively except for two cases in which their use makes the notation more confusing[10], but it implies that every percussionist should study these symbols and know them when used by a composer. It is unrealistic to expect any notation text to be added to the educational canon of any instrument, percussion included. This kind of thinking makes one wonder if

9. Percussive Arts Society, 6.

10. David Cope, *New Music Notation* (Dubuque, IA: Kendall/Hunt Publishing, 1976), 74.

a violinist would be expected to learn a new notation to make things simpler for the composer or if the composer would be expected to write music understandable by the violinist. The relative youth of percussion calls this into question and although it can be argued there is no standard for percussion notation the burden of writing a comprehendible piece should fall to the composer. The solution to all of these problems is the use of plain text to describe what the composer intends.

Music Notation in the Twentieth Century **(1980)**

Kurt Stone's 357-page text detailing the notations of all instruments and basic notation standards affords only twenty pages to the notation of percussion. The primary focus of these pages is pictograms as can be seen in the opening seven pages containing nothing but pictures and the instrument or implement they intend to represent. While some of these pictograms could be deemed useful and are fairly representative of what they claim, others look nothing like the instrument they portray. As stated previously, this is a dangerous way to have part of a work misinterpreted. These images could be entirely avoided with the use of plain text. To those fearful of translation problems, I propose that translation has been and remains an important part of any serious musicians skill set and the composer should not be worried by this.

To Stone's credit, he insists that on the first page the composer should inform the percussionist of the meaning of each symbol and can then use it throughout.[11] As with previous texts, there are issues with the ranges listed for each instrument of definite pitch

11. Kurt Stone, *Music Notation in the Twentieth Century* (New York: W.W. Norton, 1980), 205.

however the mistakes within are far greater than just advances in instrument range. Listed are “bell plates” which are not common instruments and are usually only owned when a specific pitch is required, though Stone says a range of three and a half octaves is possible, down to Cello C. Also listed with this range is an instrument called “bells” that sounds as notated and must be different from glockenspiel or orchestra bells noted later. Though some bass chimes exist, they are rare and the composer should not be led to believe that it is possible to write F three lines below the treble clef. Crotales are produced in two octaves, a high and a low, both from C-C, therefore an E three lines above the treble clef does not exist. While there may be pitches somewhere in the sound, writing for definite pitch on the flexatone is seriously advised against. Finally, the vibraphone has had a standardized range for many years and has only recently been extended to four octaves C-C (Yamaha YV-4110M), though such an instrument is uncommon in most ensembles. The standard highest note is F above the treble clef, not G four ledger lines above the staff and the standard lowest note is F below Middle C.[12]

While an attempt is made to describe some techniques and how they could be notated, the focus is clearly on how to label notations with pictures. Stone does have a correct thought in his statement, “No matter which kind of notation and score order has been chosen, it must be adhered to throughout a given composition or movement.”[13] This text is a prime example of why a current study of this topic is relevant and required by someone with a comprehensive knowledge of percussion.

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12. Stone, 213-4.

13. Ibid., 216.

***Techniques of the Contemporary Composer* (1997)**

David Cope's more recent text aims to inform the composer of newer techniques available for many instruments and by extension, discusses the notation of these and other techniques. From reading the text it seems apparent this should be supplemental knowledge and is not meant to teach the basics of notation. However, some issues are still worth giving attention.

Cope states in his percussion chapter that for every instrument and entrance a specific mallet as well as beating area should be specified by the use of an image. He goes as far as to draw an image on the face of the pictogram for "gong" that the performer should use a triangle beater to trace on the instrument.[14] This text focuses heavily on the use of pictograms and states that they have become common in the percussion vernacular and makes no mention of a need to show what the symbol represents. Furthermore, in a chapter on new notations, Cope says that many extended techniques can be explained through a picture and have no need for words. For example, he shows a passage where the performer is meant to roll on the metal bowl of a timpano. He accompanies the notated roll with the image of a timpano and what looks like a small crescendo protruding from just below the counterhoop. In his view, this means "strike the side of the timpani with snare sticks."[15] Besides the image failing the convey that message in any way, a disciplined percussionist would quickly have more concern for the damage this kind of writing could inflict on the instruments themselves.

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14. David Cope, *Techniques of the Contemporary Composer* (New York: Schirmer Books, 1997), 130.

15. Ibid., 156.

***Pictographic Score Notation* (1998)**

This text, compiled by Gardner Read is truly interesting in many ways and infuriating in others. In this compendium, Read sets out to collect the various pictograms that have been used to represent instruments in music. This is not limited to percussion, but by his own admission that becomes the focus as so many composers have tried to develop ways to write for the many instruments. To his credit, Read notes that many percussionists are not keen on this style of notation and that the use of so many different pictograms by different composers has led to the practice being utterly confusing at best.[16] The fear is, without a thorough reading of the detailed text, a novice or new composer could pick up this book and assume the eighty-one different pictures meaning "vibraphone"[17] are all viable and understood options. Over thirty pages of the opening of the book comprises images representing specific percussion instruments. None of this includes mallets or techniques, only instruments. Just looking through the pictograms is confusing to say the least and makes one wonder why the issue is being given further validation with an entire textbook.

Text Conclusion

Through all of the previous texts a common theme is the use of pictograms, though reading the final text confirms the confusion these images have created. The lack of recent material on the matter and the rapid growth of percussion in all musical settings

16. Gardner Read, *Pictographic Score Notation* (Westport, CT: Greenwood Press, 1998), 1.

17. Ibid., 3-5.

prove that the topic warrants revisiting by a trained percussionist in a comprehensive notation text focused on percussion. Such a study is outside the scope of this document but could be revisited at a later date.

Chapter 3: A Guide to Publishing Percussion Section Parts

The following guide is meant to serve as a stand-alone article or pamphlet to be used by composers or publishers when engraving their percussion music. It is an attempt to help standardize the immense amount of ways in which percussion music is presented to the performer as well as to help the composer have their music performed more accurately. The examples provided within are from no particular piece of music and are original to the author based on mistakes seen throughout his career.

A Guide to Publishing Percussion Section Parts
for Band, Wind Ensemble, and Orchestra with Visual Aides

- **Always provide individual parts.**
  While percussion scores can be useful, they come with too many difficulties. A score can serve to clarify discrepancies, but an inherent problem is the number of page turns. Publish an individual part for each player on the piece. A percussion score can, and is encouraged to, accompany those parts. This does not mean provide a different part for each, individual instrument.
    ***An exception can be made here for the publication of standard marches, where the bass drum and cymbals typically read the same part and can include snare drum as well.*

- **Organize the parts by individual players.**
  When naming parts, I advise the use of "Percussion 1," "Percussion 2," etc. Do not try to combine multiple players into one part. This will only lead to confusion in determining which player is responsible for each instrument. For example: the part for "Percussion 1" should only need to be read by that individual and not shared by multiple players.

- **Organize the players by instruments used.**
  Each player should be told the instruments for which they are responsible and all of those instruments should be exclusive to their part, with the exception of any noted sharing.

- **Use as few players as necessary.**

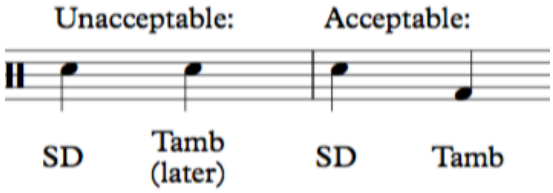
  It is ill advised to split parts just to involve more players. Streamline as much as possible, accounting for what can actually be done, and don't write for two players when one is sufficient. At the same time, if more than one player is required, do not attempt to overextend a single player with multiple parts.

- **Percussion does not have one, single, standard notation.**

  This does not mean you should try to reinvent the wheel. Use logic when notating for percussion. Some texts provide a solid foundation, but asking a percussionist should eliminate any confusion. Typically, instruments are arranged in pitch order on the five-line staff.

- **That said, be consistent in what you choose.**

  If you choose to notate snare drum on the third space of the staff, keep it there throughout the work. Though I don't advise it for lesser involved parts, if you use different noteheads, like a triangle shape to represent notes played by the triangle or an "x" to represent notes on a cymbal, continue with that notation throughout. In parts with many instruments it can be helpful to the performer to see a different notehead instead of ledger lines. Never use the same notation to represent two different instruments or sounds.



- **Provide a cover page for each part.**

  Much important information should be provided on this page including:

  Part title

  Instruments needed for that part

  If any of those are shared with another player

  Instruments listed on different parts without the indication that they are to be shared leave the players to assume they need separate equipment.

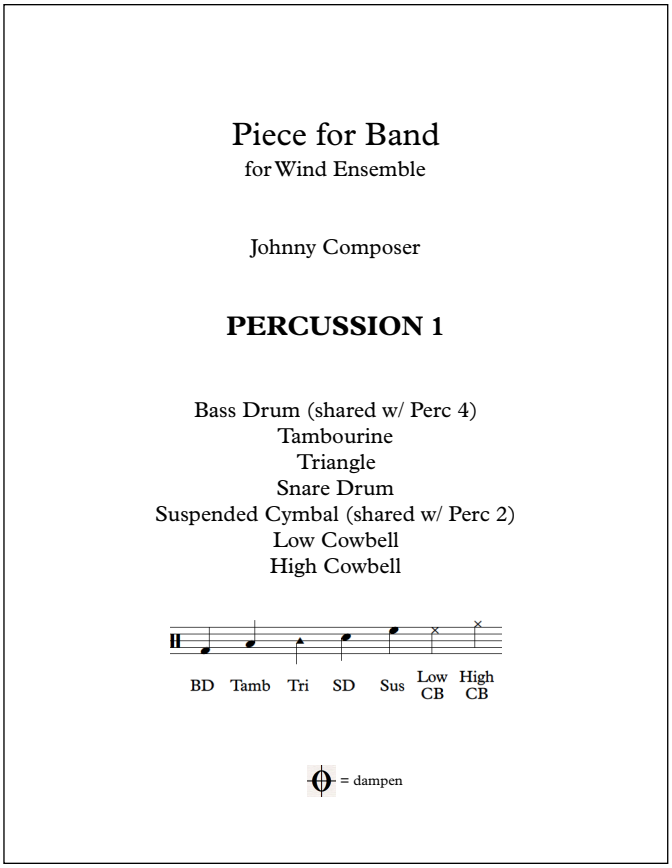
  A notation key or legend

  This is applicable to both the instruments as well as any uncommon symbols used throughout the work.

  An example of a cover page containing these elements is on the following page.

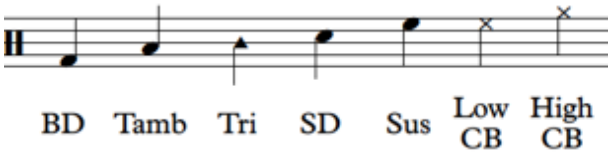
- **On shared instruments:**

  Inform each player of the instrument to be shared and with whom they are to share it.



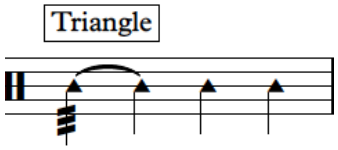
- **On the key or legend:**

  Provide a key to each player detailing every instrument they are responsible for and what it will appear as in the score. For example:



- **Introducing instruments in the music.**

  Even with a notation key, it is still helpful to provide the name of the instrument the first time it appears in the part. It is not necessary to continue reminding the player of the instrument, especially if no other instrument has been played between entrances. For example:



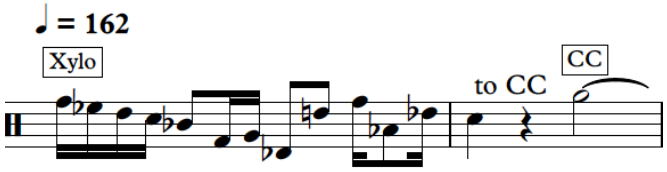
• **Track, for the player, what they are to play next.**

Help the player stay organized by providing notes within the part telling them what is coming next. For example, if they are playing triangle and their next entrance is on bass drum, simply write "to BD" after the last triangle note. Visually:

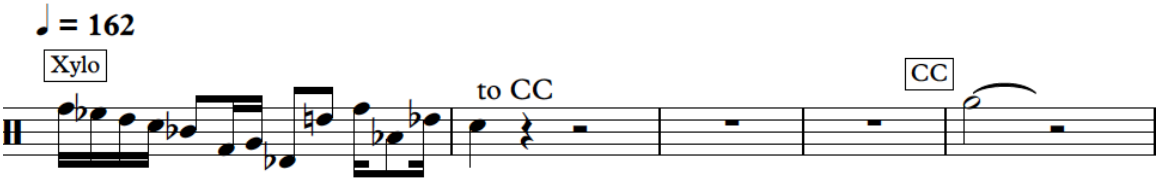
• **Provide enough time to switch between instruments.**

This can prove difficult, as I cannot say "It will take four beats at quarter equals 120 bpm to switch from cymbals to ratchet." I assume a composer that is writing for an instrument has a basic understanding of how it operates. The composer must think, for a moment, as a percussionist. For example: let's work through a change from xylophone to crash cymbals. The composer must understand xylophone is played with mallets and crash cymbals are handheld. So, the xylophone mallets must be put down, the player must get to the cymbals, and then pick them up before playing. I suggest singing through the music at tempo and imagine doing all of these things. If it seems too quick, it probably is. For visual example:

Unacceptable:



Acceptable:



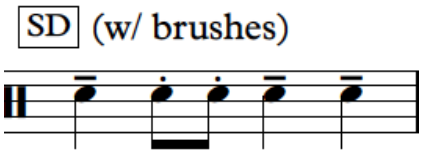
• **Consider page turns.**

Depending on what instrument is being played, percussionists usually have something in their hands. That something can be anywhere from easy to difficult to impossible to hold in one hand and execute a quick page turn. Plan parts so multiple measures of rest are given on at least one end of the page turn. Noting "V.S." at the bottom of the page doesn't do much good if it is physically impossible to continue playing and turn the page at the same time. I suggest

providing parts as single sided pages so that, barring four or five pages of notes without any rest, there will always be a way for the performer to turn a page.

- **Have a basic understanding of the standard set-up and organization of sections.**
  This is more important when thinking through instrument changes. A basic understanding of the section layout will provide a better sense of the amount of time it takes to get around. For example, from stage left to stage right, timpani, bass drum, cymbals, snare drum, accessories, keyboards. This, however, can be mostly ignored if enough time is provided. If you have specifically thought through who should be where and how the set-up works best, a diagram can be useful but do not be surprised should a section choose to create a set-up that works better for them.

- **Implements.**
  Percussion is unique in that the same instrument can produce hundreds of different sounds. One, simple, way to change the timbre is by changing the implement used to strike the instrument. If a standard sound is desired, it is not necessary to note anything in the part. If, however, something specific is required, it is necessary to inform the player of this. Again, text provides the clearest explanation. Some examples of specific sounds could include, but are certainly not limited to, brushes on snare drum, brass on glockenspiel, sticks on cymbals, or soft rubber on marimba. In a part, this could look like the following:



- **On the creation of booklets:**
  Creating a booklet out of a part can seem helpful in the organization of parts. I advise against this in most cases. As a percussionist, I appreciate single-sided pages that I can manipulate however I must to accommodate page turns or instrument changes. Booklets can be useful, however, if they are logical and thought is put into every page turn.

- **Summary**
  In summary, the most important thing to consider in the notation of percussion section parts is the organization. An organized and thoroughly explained part can save headaches for the section as well as precious rehearsal time. If the composer has a difficult time understanding what is happening in percussion, it is very likely the section will have that same difficulty. When all else fails and you still have questions, ask a percussionist!

Chapter 4: *Manhattan Roll*

Biography and Background

Robert Beaser was born on May 29, 1954 in Boston, Massachusetts. He attended Yale College where he studied literature, political philosophy and music and continued his education at the Yale School of Music where he earned an M.M., M.M.A., and D.M.A. Some of his primary composition teachers have included Jacob Druckman, Earle Brown and Toru Takemitsu. Beaser became the youngest composer ever to win the Prix de Rome in 1977. He has also been nominated for a Grammy Award and has received fellowships from the Guggenheim and Fulbright Foundations. In 1995, the American Academy of Arts and Letters presented Beaser with their lifetime achievement award. Beaser has held his current post, Professor and Chair of the Composition Department at the Juilliard School in New York since 1993.[18]

Manhattan Roll was originally composed for orchestra on commission by the New York Philharmonic, Kurt Masur, Music Director, as part of its 150th Anniversary Commissioning Project in 1998. It received its premiere by the same group on March 25, 1998 under the baton of David Zinman at Avery Fisher Hall.[19] In 2010, on commission by twenty-five university wind ensembles from around the United States, Beaser wrote

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18. "Profile: Robert Beaser," Schott Music, accessed December 29, 2015, http://www.schott-music.com/shop/persons/featured/robert-beaser/index.html.

19. "Details: *Manhattan Roll*: for Orchestra," Schott Music, accessed December 29, 2015, http://www.schott-music.com/shop/9/show,168114.html.

Manhattan Roll for wind ensemble. The consortium was led by Steven D. Davis and the University of Missouri – Kansas City Conservatory Wind Symphony and they gave the premiere at the Midwest Band Clinic in Chicago, Illinois on December 18, 2010.[20]

Beaser wrote about his work in the original program note from the New York Philharmonic: "*Manhattan Roll* is rather atypical for me: it's highly rhythmic, whereas my music tends to be more lyrical, though also dramatic and rhythmic up to a point. Here we have a piece that starts loud—fast and raucous—and displays strong syncopation, mixing Latin rhythms with more traditional things. …So *Manhattan Roll*, like much of my music, mixes things that thought they didn't belong together into a strange admixture. The nature of these elements is a bit harder to place in words. Music is, after all, about music and nothing else. The title is purposely ripe with possibilities—the word 'roll' in music having several obvious connotations. My favorite one is non-musical and can be found on the menu at the venerable Empire Szechuan Chinese restaurant."[21]

Approach

I was able to perform this piece with The Ohio State University Wind Symphony on Wednesday, October 30, 2013 in Weigel Auditorium in Columbus, Ohio under the direction of Dr. Russel Mikkelson for our consortium premiere. As a percussionist of that group and through the rehearsal process, I was able to see and experience the difficulties

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20. "Details: *Manhattan Roll* for Wind Ensemble," Schott Music, accessed December 29, 2015, http://www.schott-music.com/shop/9/show,281497.html.

21. James M. Keller, ed., *Notes on the Program*, "*Manhattan Roll*," New York Philharmonic Program (The Philharmonic Society of New York, Inc., March 25, 1998), 20.

of performing this work firsthand. In the initial study of the percussion score I noticed many peculiarities and places where it would be impossible for a player to get from one instrument to the next. *Manhattan Roll*, as expressed by the composer in the opening pages of the percussion score, was written for five percussionists playing over fifty instruments in total. Immediately, it was obvious that getting the set-up and other logistical concerns correct would be critical. After our first rehearsal it was clear that we would need more than five percussionists and would need to do much decision-making. As a performer, I am used to and even okay with that, to an extent. When I start making decisions that make me question whether or not I'm accurately fulfilling the composer's wishes I wonder if there isn't a clearer way to convey those ideas. As a performer, I am always concerned with making music and expressing my artistic ideas, but also accurately interpreting the composer's work.

Once we had attained the proper number of players and done our best to make decisions the next realization was that it would be particularly difficult to confidently perform the work from a thirty-nine page percussion score. We were provided no parts from Schott and upon the decision to write this document I learned there are no individual parts. To the best of my memory, at least two section members took it upon themselves to engrave their own individual part. This was in an effort to minimize thirty-nine pages to a more reasonable five or six. These problems aside, I cannot say I was disappointed in our performance that day. I was happy with the product we presented with the obstacles we had to overcome. My D.M.A. Candidacy Examination provided the opportunity to revisit this topic and inspired the completion of this document using *Manhattan Roll*, a detailed and complex work that requires much thought.

Already having known that *Manhattan Roll* was adapted for wind ensemble from its original orchestral version, I contacted Schott and obtained both the orchestral and wind ensemble versions of the work. It was my hope that the orchestral may shed some light onto the questionable parts of the wind ensemble version and this proved to be quite true. Many quandaries were solved by referencing the orchestral score. The first step I took was to have the wind ensemble percussion score in front of me and mark every single entrance with a number corresponding to a percussionist. In this phase, instrument sharing, time between instrument changes, and some set-up possibilities were considered. From that I was able to engrave a new version for wind ensemble organized by performer using *Sibelius* 7.1.3. After that, I extracted individual parts and finally, cleaned up those parts to account for any page turns or out-of-place notations. Of critical note to this document is that the orchestral version remains in the composer's original hand whereas the wind ensemble version was engraved in computer software by an unknown party. The original wind ensemble version provided by Schott can be found at the back of this document in Appendix A followed by my revised version with individual parts in Appendices B and C, respectively.

Decisions

Throughout the process and after reaching out to the composer with no response, I was forced to make some executive decisions. For all decisions I consulted as many sources as possible and pondered all potential outcomes. If an answer did not present itself, I used my best logic to make a decision. In rare cases I retained a clear mistake for

a lack of any better options. I will point out specific decisions throughout the body of this document and will outline general guidelines that were followed here.

In the initial phase, I purposely discarded any trace of which part or instrument belonged to each player as potentially determined by the layout of the percussion score. I set out to change this with the knowledge that I would be able to come up with a better, more logical, and more easily understood organization than that which was provided. The second decision that was made after gaining a complete understanding of the percussion score was that this piece requires seven percussionists as opposed to the five that is indicated in the score. My score is laid out with the knowledge that it cannot be done with less than seven. Whenever a discrepancy came up in the wind ensemble score, my first reference for clarification was the orchestral version. Many times, this solved the problem and I will show specific instances of this later. With the orchestral version for consultation, I took any changes to the wind ensemble version, be they rhythmic additions or subtractions, dynamics, ornaments, rolls, accents, or otherwise, to be the willful intent of the composer. For some instruments where duration of sound is not typically of concern, I altered rhythmic values to make reading easier and more practical. Throughout the score, anywhere a roll was notated I added a tie to connect it to the following downbeat unless it seemed to be intentional that the roll should be separated from the next note by a sixteenth note. Finally, the slashes used to notate rolls have been altered to conform to a more traditional style. Eighth note rolls are given two slashes whereas anything quarter note or larger is given three slashes.

Due to the complexity of the score it was incredibly important to first organize the players by the instruments they will play. These listings are provided for each musician in

a cover page provided with their part. For ease of reference, consult Table 3.1 for a complete list of players and the instruments they will require.

Percussion 1	Xylophone
	Low Maracas
	Cabasa
	Ratchet
	Snare Drum
	Suspended Cymbal
	Triangle
	High Gong (shared with Percussion 5)
Percussion 2	Marimba (4.5 octave)
	Chimes
	Cabasa (shared with Percussion 1)
	Tambourine
	High Crash Cymbals
	Slapstick (shared with Percussion 3)
Percussion 3	Crotales
	Low Tam-Tam (shared with Percussion 5)
	LP Gourd Guiro
	Sandpaper Blocks

Table 3.1. Listing of Instruments by Player Cont.

Table 3.1 Cont.

	2 Temple Blocks
	2 Woodblocks
	3 Cowbells
	Military Drum
	Slapstick
	High Cabasa
Percussion 4	Glockenspiel
	Low Tam-Tam (shared with Percussion 5)
	Bass Drum (shared with Percussion 6)
	Metal Guiro
	LP Gourd Guiro (shared with Percussion 3)
	4 Log Drums
	Medium Suspended Cymbal
	High Suspended Cymbal
	Claves
Percussion 5	Vibraphone
	Low Tam-Tam
	Medium Tam-Tam
	High Gong
	High Suspended Cymbal
	Vibraslap

Cont.

Table 3.1 Cont.

	Crash Cymbals
Percussion 6	"Multi-Set"*
	Bass Drum*
	Low Tom*
	Low Conga*
	2 Timbales*
	2 Bongos*
	Medium Sizzle Cymbal
	Medium Suspended Cymbal
	High Suspended Cymbal
	Crash Cymbals
	High Maracas
Percussion 7	"Trap Set"*
	Pedal Bass Drum (Kick Drum)*
	Low Tom*
	High Tom*
	Snare Drum*
	Suspended Cymbal*
	High Sizzle Cymbal*
	Hi-Hat*

Cont.

Table 3.1 Cont.

	4 Steel Pipes
	Anvil

Engraving

The engraving of *Manhattan Roll* was a process that involved repeatedly correcting some of the same issues. For the sake of this document, I will show an issue, explain why it is problematic and how I chose to correct it. There is one piece of information I wish to provide before going further with the percussion score. As a source of reassurance as to the existence of discrepancies, the timpani part in the orchestral score notes the requirement of six drums to successfully perform the work whereas the wind ensemble part makes no mention of this. This is not the only time details were left out of the wind ensemble score, but the remaining percussion omissions will be examined herein.

Percussion Score

The first, and possibly most crucial, change I have made to the percussion score for *Manhattan Roll* is that each performer is represented by a single line that continues throughout the score and is labeled by the player number. This allows for minimal confusion when determining who is responsible for each note or instrument. Use the examples in Figures 3.1 and 3.2 for reference.

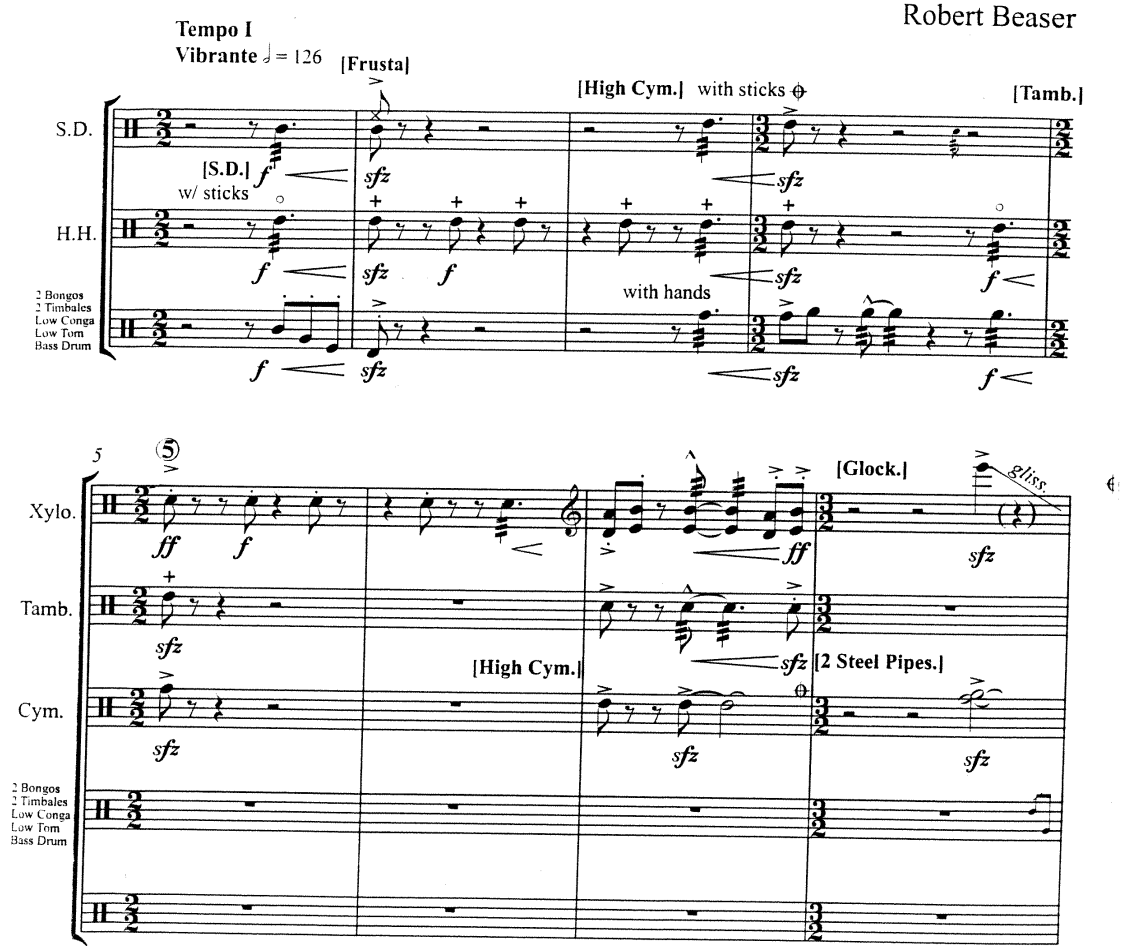

Figure 3.1. First two staves from *Manhattan Roll* original wind ensemble.

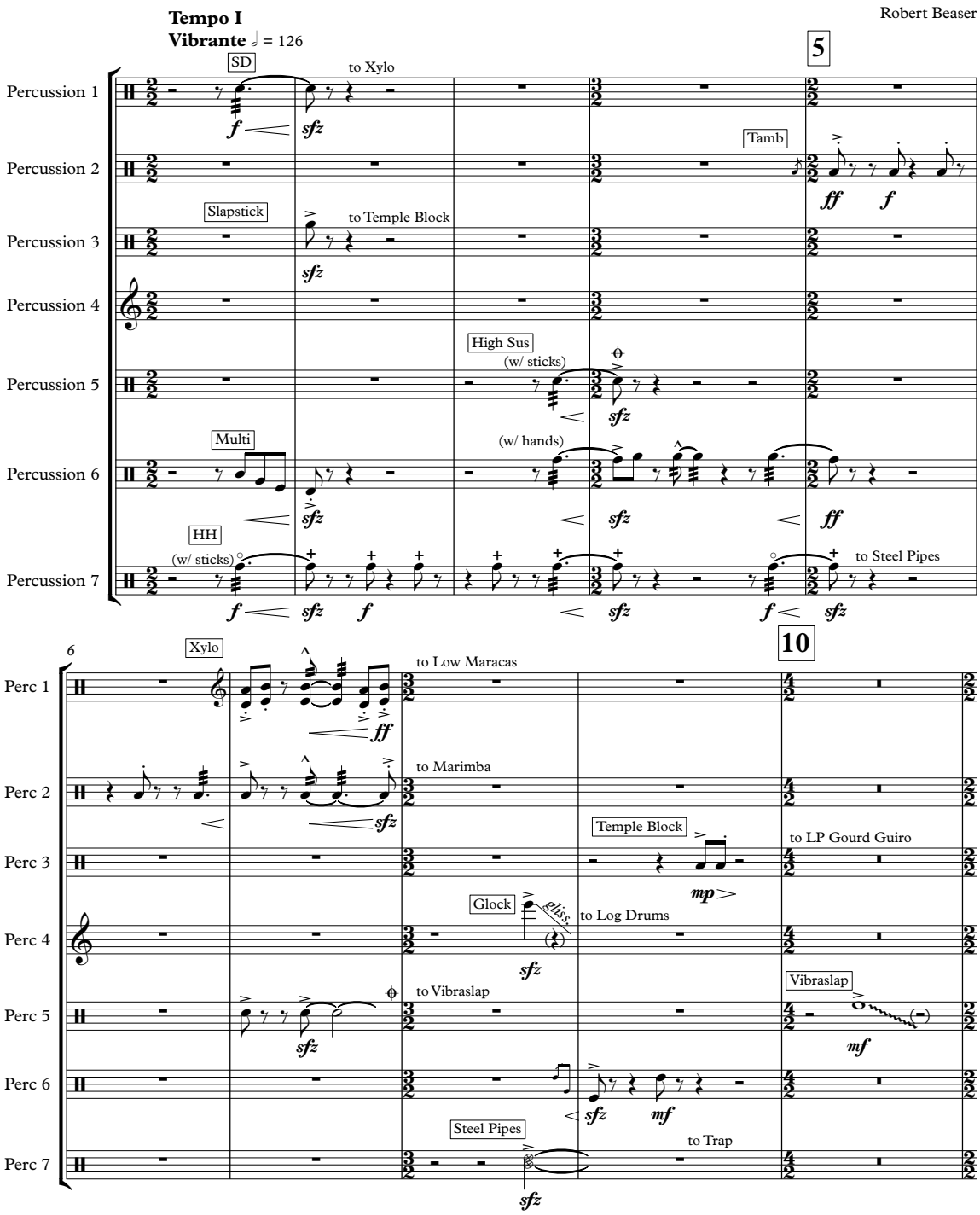

Figure 3.2. First two staves from *Manhattan Roll* re-engraved.

The next major change was determining which players should play what instrument and when. This was decided primarily by the music and when realistic instrument changes could be made. Another factor was attempting to minimize crossover of instruments and when it was unavoidable, trying to make sure the player has time to get to a shared instrument. This required changes throughout the score but one of the most notable examples comes between mm. 41 and 42. The original score shows a change from glockenspiel to vibraphone with no break, which can be seen in Figure 3.3. I have provided my solution in Figure 3.4 where the instruments are simply assigned to two players.

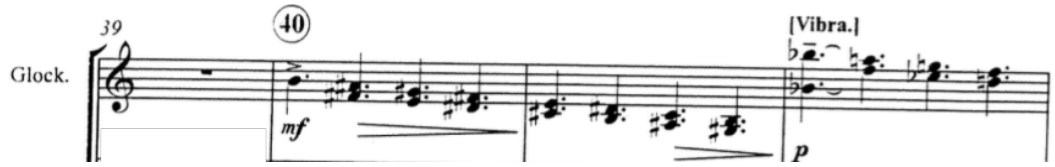

Figure 3.3. Immediate switch from glockenspiel to vibraphone in original.

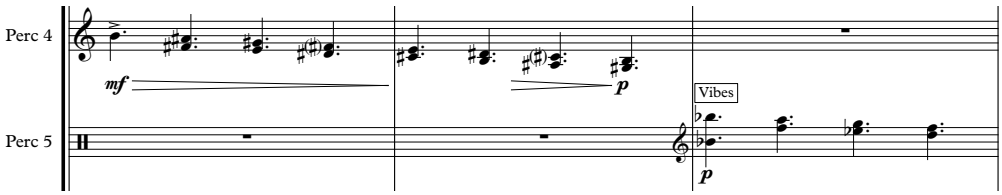

Figure 3.4. Instrument change divided between players 4 and 5 in re-engraving.

One of the greatest difficulties in performing *Manhattan Roll* came in trying to determine what each line represented. The percussion score came with a listing of instruments in paragraph form and instruments were specified within the score as they

came up. Never was a guide or key given to inform the player of what instruments the notes represent. For our performance, we had to do our best and use logic in a high to low relationship of pitches to make what became educated guesses. After beginning this project, I wanted to see the orchestral score for a reference and quickly learned that each instrument had been very specifically labeled to a note in the beginning of each line. This is shown in Figure 3.5 compared to the notation used in the wind ensemble version. This confirmed our logic for the most part, but was inaccurate in one place in particular shown in Figure 3.6. This project would have been next to impossible had the orchestral score not provided a key to the notation.

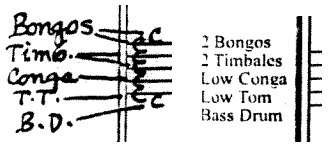

Figure 3.5. Orchestral vs. Wind Ensemble

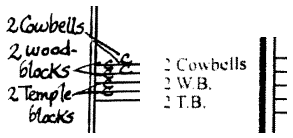

Figure 3.6. Orchestral vs. Wind Ensemble

A final general change made throughout the score was the alteration of pictograms to words. Pictograms are acceptable if a guide or key is provided to decipher them, but it is unwise of the composer to assume that all percussionists understand these symbols. They are encountered in some works and a percussionist can assemble a knowledge of these images and what they usually mean, but the composer could intend them to mean something entirely different. It is easier and less is left to chance if words are used. Take for example the suspended cymbal in mm. 43, which is found in figures 3.7 and 3.8.

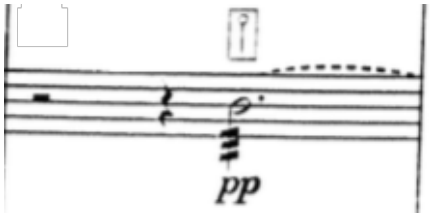

Figure 3.7. Pictogram above suspended cymbal mm. 43 in original.

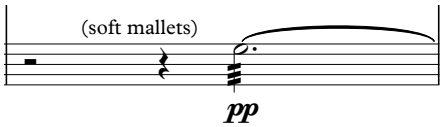

Figure 3.8. Pictogram replaced with words “soft mallets” in mm. 43 in re-engraving.

The following examples will be specific changes to individual parts or notes between the original and my re-engraving along with the reason for the change. These will be provided in order from the beginning of the piece to the end. The first change comes in mm. 18 where the grouping of notes played by what I call the “multi-set” has been altered for ease of reading. See Figures 3.9 and 3.10. Note grouping and beaming can be interpreted by the musician to show where emphasis should be placed. In this example, accents are placed on the beginning of each grouping of three notes. It then seems unlikely that Beaser would wish the second note of the second group or the third note of the third group to be emphasized. For this reason, I have grouped the notes into threes for ease of reading and interpretation with the single outlier being the eighth note before the final three of the measure. As the final three are all accented and the three previous are part of a group, this single note has been left ungrouped.

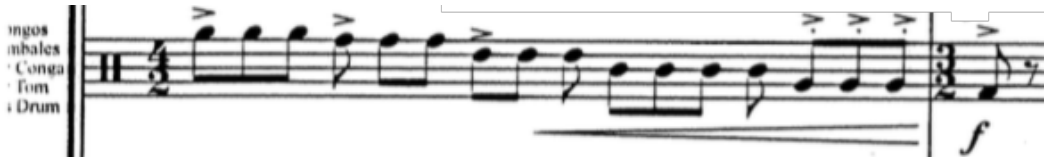

Figure 3.9. Mm. 18 original note grouping.

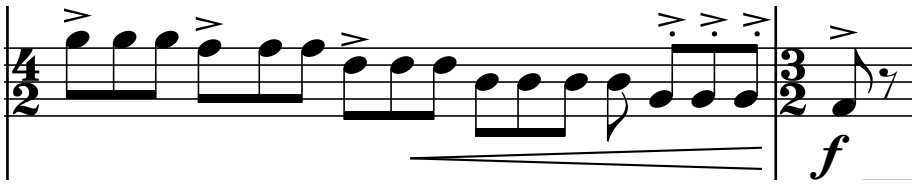

Figure 3.10. Mm. 18 with new note grouping in re-engraving.

The next change is twofold and comes in mm. 25. First, I have removed the highest notated C from the downbeat for multiple reasons. The most important reason is that the percussionist would be required to hold at least three mallets for a single eighth note while the remaining passage only requires two mallets. At tempo, the passage is more easily and accurately performed while only holding one mallet in each hand. The element that I saw as making this alteration acceptable is that the highest C is in octaves with the C below it, so the pitch is still being performed and in a notated octave, just no longer in octaves. The second change to this passage is the removal of staccato dots. On a marimba, it is impossible to change the length of the note without changing the mallet, the striking area, or the dynamic. Therefore, the staccato notation could be misconstrued as a "dead-stroke" where the mallet is allowed to remain on the bar to stop it from resonating. As I do not believe this is the composer's intention I have removed the staccatos. These two changes can be seen in Figures 3.11 and 3.12.

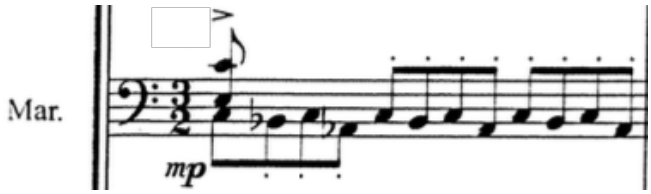

Figure 3.11. Mm. 25 original containing octave C on downbeat and staccato dots.

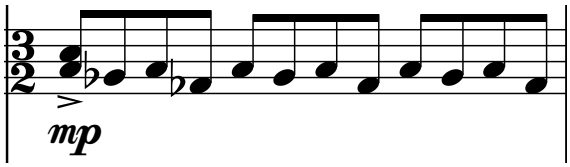

Figure 3.12. Mm. 25 removed octave C and staccato dots in re-engraving.

With the assumption that the notation key provided in the orchestral score can be used in the wind ensemble version, there is a note out of place in mm. 28. In the part that I have called "multi-set," there is a note on the first space of the staff that is previously unused in any version. It seems to reason that it should be the low tom as the conga is previously used and a figure that follows a similar form occurs in mm. 29. Figures 3.13 and 3.14 show the subtle difference.

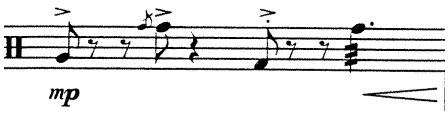

Figure 3.13. Note on first space of staff in original.

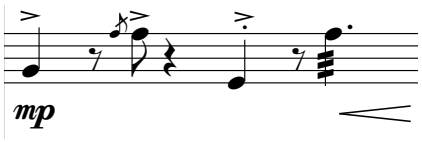

Figure 3.14. First space note moved to first line (low tom) in re-engraved.

Throughout the work it often seems as though there is a stubbornness in forcing everything into five staves and that if it is written on five staves then somehow it must be possible to perform with five people. While any trained percussionist will know this is certainly not the case, it results in some changes between versions. In mm. 29 of the orchestral score, the claves continue from the previous passage but there is no marimba at this point in this version. As the marimba continues in the wind ensemble version, there was no room on the five staves for the claves. With the addition of two more players, I have made the decision to continue the clave part as notated in the original orchestral.

Similar to a previous error, in mm. 33 of both the orchestral and wind ensemble versions the final note in the "multi-set" part is notated on the first space of the staff. Using context and musical intuition, it seems likely that the descending eighth notes should be concluded with the next lowest instrument. In the re-engraving I have moved this to the line for low tom finishing the pitch descent. This difference can be scene in Figures 3.15 and 3.16.

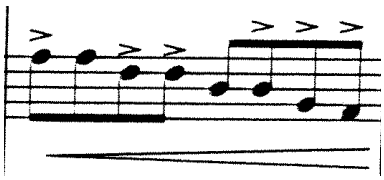

Figure 3.15. Last note on first space of staff in wind ensemble.

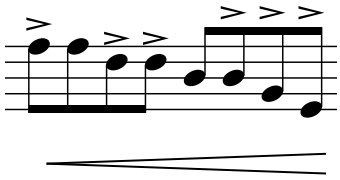

Figure 3.16. Last note moved to first line (low tom) in re-engraving.

Multiple times throughout the score clefs are changed for what I can only assume is an attempt to make the part easier to read. This constant back and forth only serves to make things more difficult and is first apparent in mm. 51-53 of the marimba part. Changing to treble clef in mm. 52 does nothing to alleviate the reading of ledger lines so that doesn't seem to be a valid reason for the alteration. Also, at first glance, the pitches are higher, but the notes appear lower than those just previous. It would be easier to leave everything in bass clef and not require the performer to worry about constantly changing clefs. Figures 3.17 and 3.18 show the initial difficulty of reading the original version along with my re-engraving where everything remains in bass clef. Also to be noted in the following example is the original use of separated notes with tremolo and my use of stacked chords. Seeing all of the notes at once makes for easier reading and is a notation I followed and changed throughout.

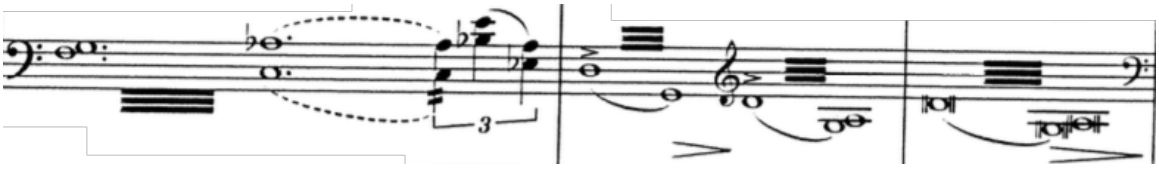

Figure 3.17. Changing clefs within original marimba part.

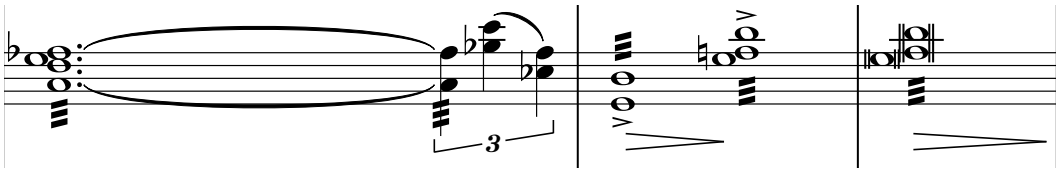

Figure 3.18. Constant bass clef in re-engraving.

In mm. 59, the vibraphone first plays the rhythm of two eighth notes followed by a half note, but then two eighth notes followed by a quarter note and a quarter rest. The final note of each rhythmic idea, half note and quarter note respectively, also is marked legato. This could make sense if all instruments ceased playing the final quarter note of the measure and sound was stopped, but the marimba and suspended cymbal both continue through the end of the bar making this seem abnormal. In the re-engraving I have changed the final vibraphone note to be a half note so as to follow the rhythmic idea set previously in the measure. This is demonstrated in Figures 3.19 and 3.20.

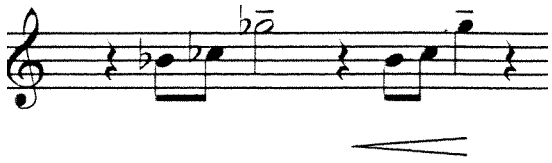

Figure 3.19. Mm. 59 vibraphone with quarter note at end of measure in original.

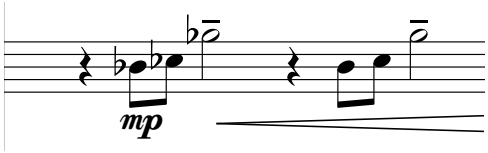

Figure 3.20. Mm. 59 vibraphone with half note at end of measure in re-engraving.

One of the more difficult aspects of reading a particular part is the trap-set where notes often are intended to be on the same beat but do not line up as such. This is a notational aspect of the computer program in which creating a new layer will keep notes from lining up depending on which way the stem is going. There is a simple work around that only takes a little time to fix and creates a much simpler to read part. Take for example mm. 62 shown in Figures 3.21 and 3.22, which demonstrate the trap-set as originally notated and the aligned, re-engraved version. Also, throughout the trap-set part directions were placed in a way that makes them difficult to understand to what they refer. In my engraving and in this same example, you can see the direction "rub with brush" placed above the staff, but when placed directly below the snare drum note it much more clearly shows what it is altering.

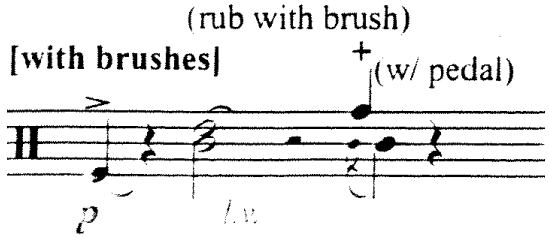

Figure 3.21. Mm. 62 in original with final note not aligned.

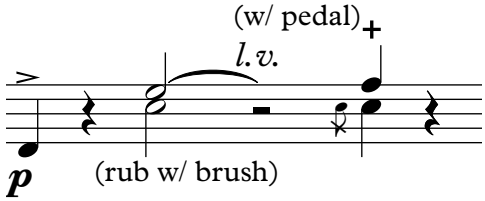

Figure 3.22. Mm. 62 in re-engraving with final note aligned for ease of reading.

One of the difficulties stemming from the layout of the score is that without a notation key or clearly defined parts the performers rely on the staff name for what instrument they are to be playing. When changing instruments in *Sibelius* the name of the staff automatically changes, though I have quelled this by renaming all staves to the percussion part number and simply telling the player what instrument they are to be playing within the measures. A mistake that we made in our performance was trusting the staff names even though we had no other information. When consulting the original orchestral score I noticed multiple problems the first of which occurs in mm. 68-71. In mm. 65, there is a glockenspiel entrance, however it was never changed to vibraphone for the following measure resulting in the staff name remaining as glockenspiel. Figures 3.23, 3.24, and 3.25 show the original orchestral vibraphone staff, the wind ensemble version with a staff named "Glock." containing identical notes, and finally my re-engraving to solve the problem, respectively.

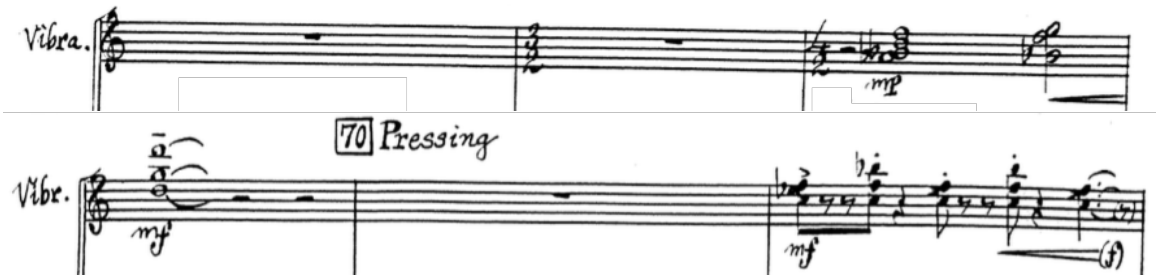

Figure 3.23. Mm. 66-71 Orchestral score showing vibraphone.

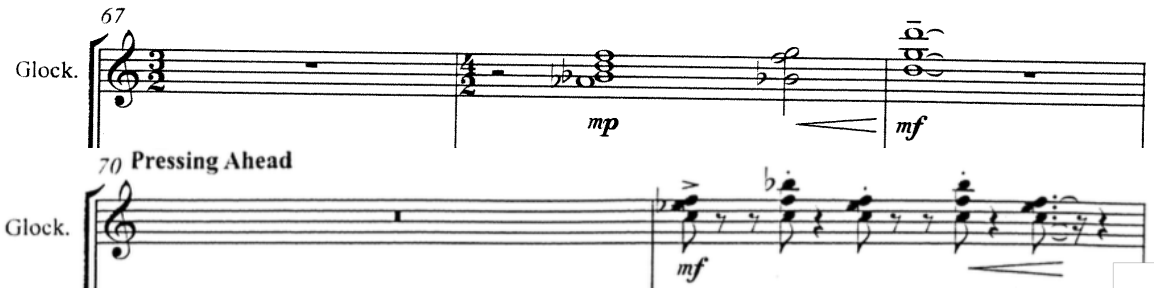

Figure 3.24. Mm. 67-71 Wind Ensemble score showing same notes on glockenspiel.

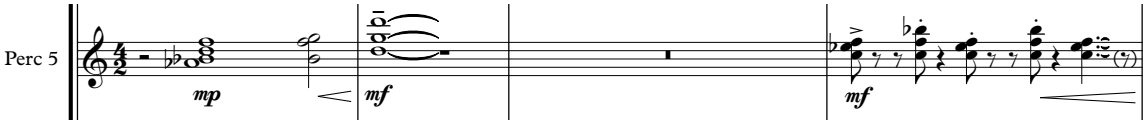

Figure 3.25. Mm. 68-71 Re-engraving showing same notes for "Perc 5" (vibraphone).

For ease of reading, any keyboard part with multiple ledger lines for an extended period of time has been altered and placed on the staff notated as "8va." An example of this with notes above the third ledger line occurs in mm. 72-74 of the marimba part. Figures 3.26 and 3.27 show measure 72 of that passage for reference.

Figure 3.26. Mm. 72 of original marimba part.

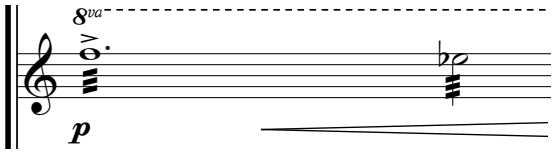

Figure 3.27. Mm. 72 of re-engraving showing marimba notated “8va.”

Throughout the work, there is an occasional part for hi-hat notated on a separate line from the trap-set, which also requires a hi-hat. After analysis, it is clear that with minimal adjustments these two parts can be combined and the need for a second hi-hat eliminated. One of the small adjustments required occurs in mm. 84. Because the subsequent trap-set part only contains snare and kick drum, one of which played with the foot, the preceding hi-hat part can be added to the same part. The only change this requires is the hi-hat notes must be played with brushes as the coming trap-set part is notated. This seems to be an acceptable change in its ability to eliminate an entire piece of equipment. Figures 3.28 and 3.29 show how this now looks in the music.

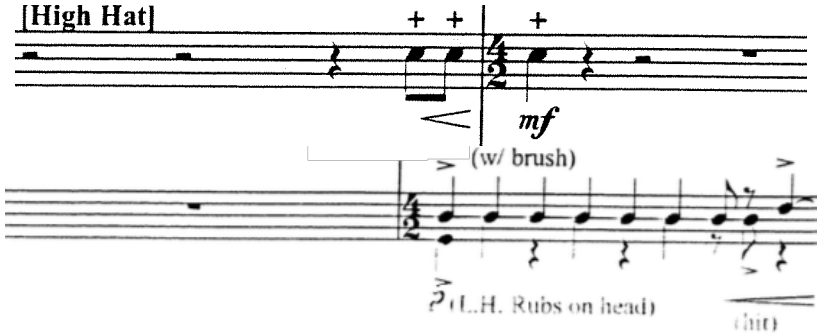

Figure 3.28. Mm. 84-85 hi-hat and trap-set parts separated in original.

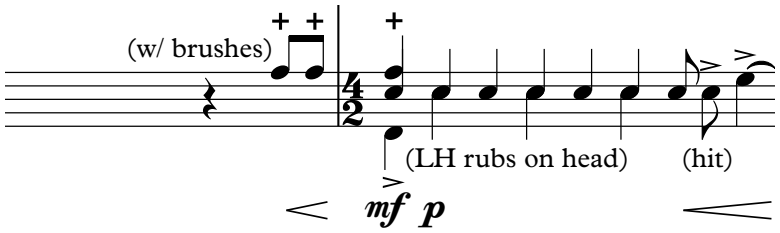

Figure 3.29. Mm. 84-85 hi-hat and trap-set parts combined in re-engraving.

One of the most common mistakes composers make is misunderstanding with what percussion instruments can be struck. *Manhattan Roll* is no exception. While it is true that many percussion instruments can be struck, scraped, rolled, or otherwise activated with many implements outside of those typically used, it is also true that there are many ways to damage these instruments. One such example can be found in the vibraphone part in mm. 89 where the performer is told to play with plastic mallets. While plastic is appropriate for glockenspiel or crotales, the thin shape of the vibraphone bar makes it vulnerable to cracking and something as hard as plastic only increases the chances of damage. In my re-engraving, I have changed plastic mallets to hard mallets, which a percussionist would understand to mean hard yarn or cord covered mallet. This change can be seen in Figures 3.30 and 3.31. Also in mm. 89 in this same part I have trusted the orchestral score for notes, which make more sense as it continues the sequence started earlier in the measure.

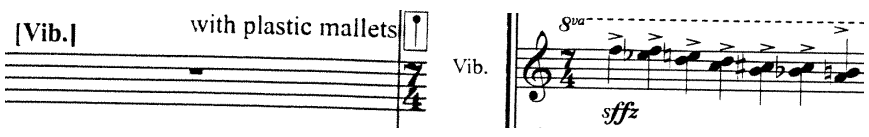

Figure 3.30. Mm. 88-89 of the original showing plastic mallets on the vibraphone.

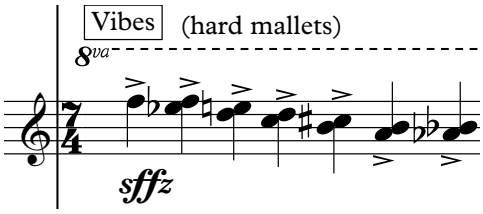

Figure 3.31. Mm. 89 of the re-engraving showing hard mallets on the vibraphone.

Occasionally composers write for notes that don't exist within the range of any model of the instrument required. This is the case in mm. 93. The chimes part ends a glissando from mm. 92 with a G-natural the space above the treble clef staff. Modern chimes only go as high as the top line F. Though some uncommon instruments called "bass chimes" do go lower, no common instruments that I know of go higher. A typical solution would be to take the suspect note down an octave. As it is the last note in a run it seems important that it be that G. I could not reach the composer for comment and as such have left the G in my own score for lack of a better option.

In mm. 95 the fourth staff is marked as "Sus. Cym." in the wind ensemble version. After reviewing this measure and those following with the original orchestral version it became clear that these notes were to be played on the "multi-set" and I have made that distinction in my re-engraving. Figure 3.32 shows the original orchestral while Figure 3.33 shows the wind ensemble score. In the final measure of the following examples, mm. 96, the orchestral score shows the final note on the high bongo. As the phrase is ending and the dynamic is fortissimo, it seems likely that the composer truly did intend for the high bongo to be the one struck. My re-engraving follows with the orchestral by returning the final note to the high bongo.

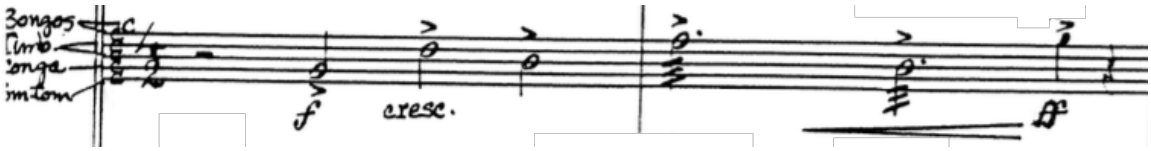

Figure 3.32. Mm. 95-96 original orchestral score showing “multi-set” instruments.

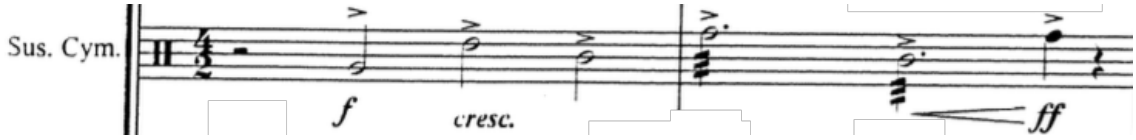

Figure 3.33. Mm. 95-96 wind ensemble score showing “Sus. Cym.”

One of the things that seemed to get lost in the wind ensemble version was the attention to detail regarding accidentals in keyboard parts. The entire piece is written without a key and it is often unclear whether accidentals are intended to last for only the beat they are attached to, the entire measure, or the entirety of a passage. Accidentals only belonging to the note they are attached to is not an uncommon practice in modern solo keyboard literature and the notation within *Manhattan Roll* is so questionable it makes one wonder if the accidental should belong to the entire phrase, however unlikely it may be. I have done my best to use the orchestral as a guide and rely on the wind ensemble version whenever possible as well as apply the standard rule that accidentals apply throughout the entire measure. Figures 3.34, 3.35, and 3.36 show the xylophone, vibraphone, and marimba of mm. 105-106 in the orchestral score, wind ensemble score, and my re-engraving, respectively, for comparison.

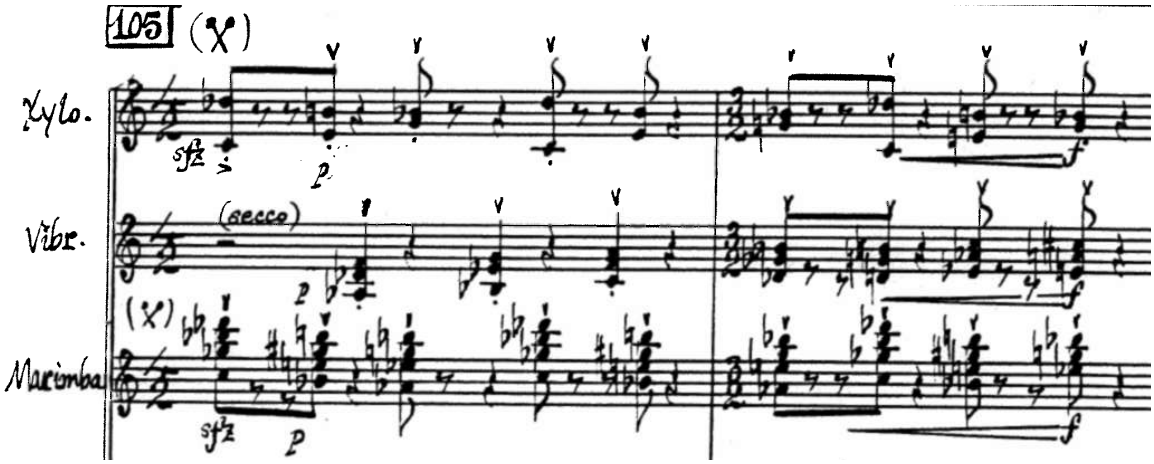

Figure 3.34. Mm. 105-106 orchestral percussion score.

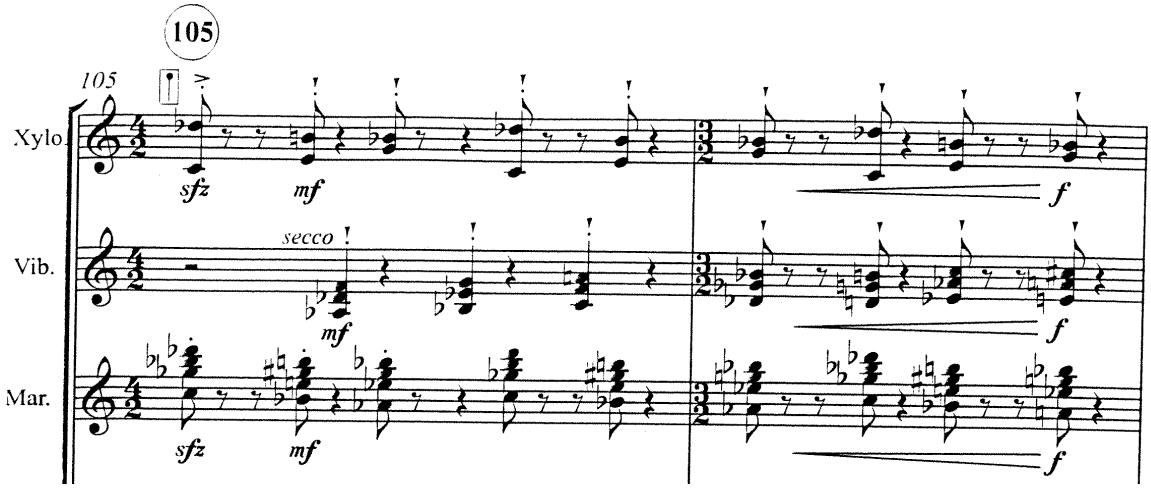

Figure 3.35. Mm. 105-106 wind ensemble percussion score.

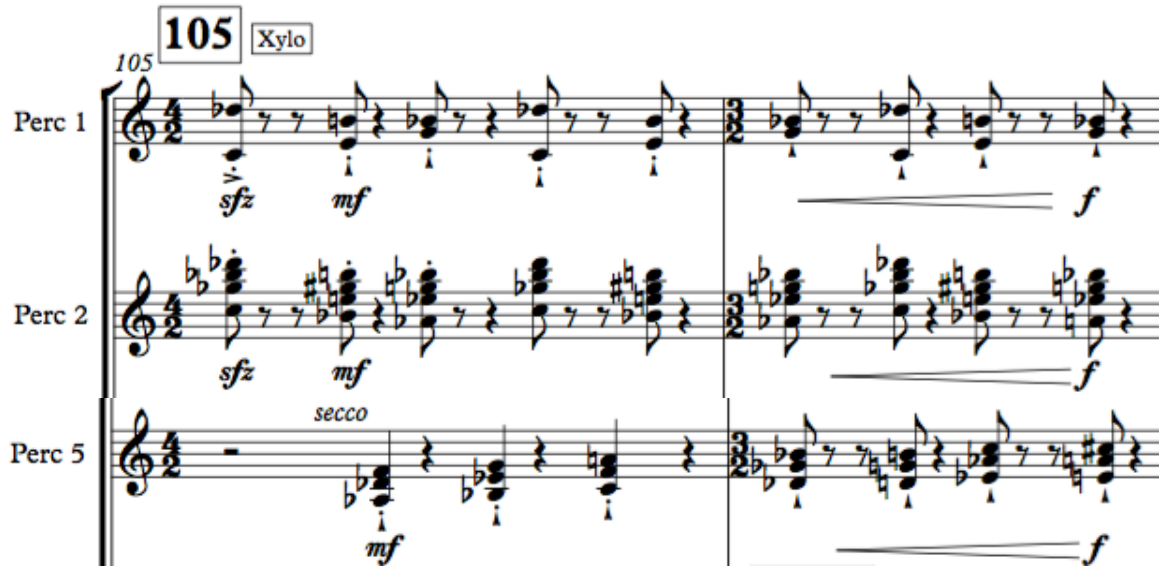

Figure 3.36. Mm. 105-106 re-engraving. 1 – xylo, 2 – marimba, 3 – vibraphone.

A rhythmic discrepancy occurs in mm. 117 between the orchestral and wind ensemble versions in the suspended cymbal part. In light of trying to use the wind ensemble version as a guide, I chose to use that rhythm in my re-engraving. Figures 3.37 and 3.38 show the orchestral score and wind ensemble score for comparison.

Figure 3.37. Mm. 117 orchestral score.

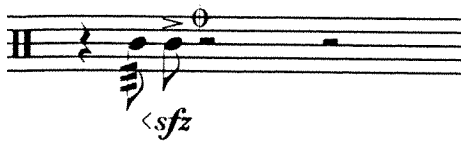

Figure 3.38. Mm. 118 wind ensemble score.

A few errors and changes occur within mm. 127 on the trap-set part. First, the wind ensemble score shows some notes in the space below the staff. This space is not notated within the key in the orchestral and, as such, I have deemed it to be simply an error and have moved the note back to the first line, indicating kick drum. Second, for ease of reading and for the number of beats in each bar being equal to the time signature, the suspended cymbal note at the beginning of mm. 127 has been changed from a half note to a quarter note. The fact that the note has a tie and other notes immediately follow ensures that the note will be sustained. Therefore the use of the half note only serves to add too many beats to the measure and further confuse the performer. Throughout the score, and emphasized in this example, the trap-set part contains many unnecessary rests which are all remnants of engraving in multiple layers. As these only add to confusion, I have removed as many as possible in my re-engraving and only retained those that are absolutely necessary for clarity throughout. Finally, as the trap-set is already using sticks previously, I have left out the direction of "w/ sticks" for clarity. These differences can be seen in Figures 3.39 and 3.40.

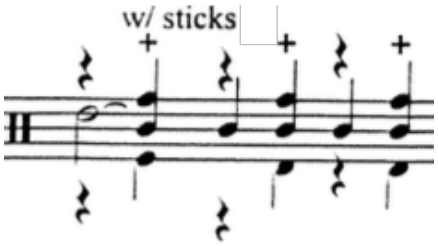

Figure 3.39. Mm. 127 showing notes below staff, half note, and rests in wind ensemble.

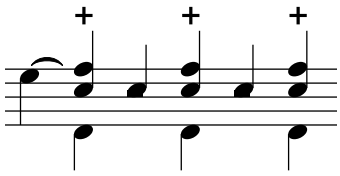

Figure 3.40. Mm. 127 showing changes made to re-engraving for clarity.

In mm. 132 and 135 the instruction of "*vuota*" is given. This Italian word meaning "empty" is the equivalent to the much more common "Grand" or "General Pause," shown by notating a "G.P." above the empty measure. As "G.P." is a much more common and universally understood direction, I have changed the marking of "*vuota*" to "G.P." In places throughout the score, but specifically in the tam-tam part of mm. 139 I have removed redundant markings. In this instance, "*cresc.*" is marked and immediately followed by a hairpin. For clarity and in an effort to not use more ink than required, I have removed "*cresc.*" seeing as the hairpin immediately follows. In the "multi" part of mm. 139-140 a descending line is marked fortissimo and crescendos to another fortissimo. This is an unclear notation that I have retained for lack of a better option.

Some rhythmic errors are made throughout the score wherein bars either contain too many or too few beats. In this particular instance in mm. 144 the marimba part

contains two dotted breves which equals twelve half notes. As the time signature is 6/2, this is double the amount of beats for the measure. In the re-engraving, I have changed the two dotted breves to two dotted whole notes, which equals the proper number of beats for the measure. This difference is seen in Figures 3.41 and 3.42.

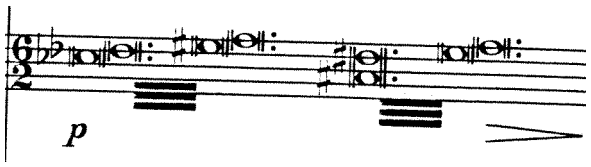

Figure 3.41. Mm. 144 dotted breves in wind ensemble score.

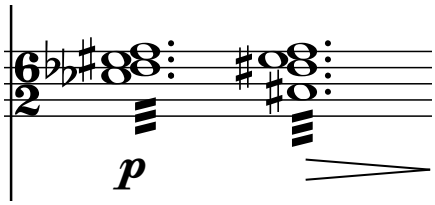

Figure 3.42. Mm. 144 dotted whole notes in re-engraving.

A mathematical and notational nuance error occurs in mm. 146 in the vibraphone part. Two groups of six quarter notes are each grouped together with a triplet bracket and a "3" above them. Seeing as there are six notes under the bracket, these are quarter note sextuplets and not quarter note triplets. My re-engraving substitutes the "3" in the bracket for a "6." Similar to an issue earlier, I have changed the marimba notation in mm. 155 from treble clef to bass clef to keep the clef consistent. Mm. 155 and 156 are notated in treble clef and then mm. 157 is returned to bass clef, so having those two measures switch clef is more difficult to read than the very few ledger lines required for bass clef.

The trap-set staff becomes difficult to interpret in mm. 165. There are many layer rests and some of the most misaligned notes throughout the part. It was easier to sort through these using the orchestral score as a reference. With this, it was possible to determine the composer's intent and create a more accurate and legible version. The alterations can be found in Figures 3.43 and 3.44.

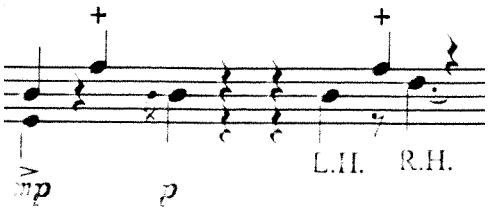

Figure 3.43. Mm. 165 trap-set in wind ensemble showing rests and unaligned notes.

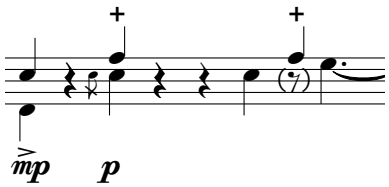

Figure 3.44. Mm. 165 trap-set in re-engraving corrected.

Mm. 167 and 169 contain some discrepancies between the orchestral and wind ensemble versions in the trap-set part that are difficult to interpret. First, in mm. 167 some notes are misaligned, but more importantly there is a notation in the orchestral score instructing the performer to strike the open hi-hat with the back of a brush. This has seemingly been substituted in the wind ensemble version for a flam on the snare drum, however the hi-hat note still contains a tie, possibly implying it should also be stuck and

allowed to ring. Unless the foot is used, it would not be possible to play both a flam on the snare and an open note on the hi-hat simultaneously. For my edition, I have chosen to return to the orchestral score and use the back of the brush on the hi-hat as well as a single note on the snare drum. This allows for all timbres to be activated with the originally intended implements. Mm. 169 provides a similar difficulty though this one even more impossible. Here, the composer writes for closed hi-hat, suspended cymbal, and a flam on the snare drum to all occur together. The hi-hat can be played with the foot allowing both hands to remain free, but a flam of any reasonable duration to the main note cannot be played while another instrument is struck. This would require either a cumbersome third implement held in the opposite hand as the main snare drum note or for the performer to be able to play a one-handed flam, where one hand would play both the grace note and the main note. The later option is simply not a viable technique that could create a good sound and therefore can be dismissed. To solve this problem, I have removed the grace note from the passage. I have also cleaned up alignment issues and changed some rhythms to better articulate the composer's intent. These changes can be seen in Figures 3.45 and 3.46.

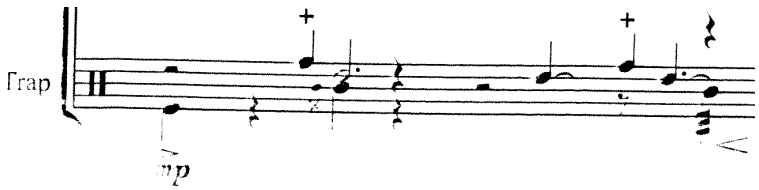

Figure 3.45. Mm. 169 wind ensemble trap-set.

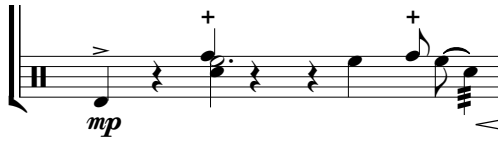

Figure 3.46. Mm. 169 re-engraving of trap-set.

Yet another error of placement occurs in mm. 179 in the "multi" part. Here, another note appears on the first space of the staff, but is clearly a conga note on the second line in the orchestral score. I have followed the orchestral score for this correction in the re-engraving. In mm. 182 an error of instrument occurs within the wind ensemble score. Notes are placed on the vibraphone line while a measure of rests takes place between two measures of notes on marimba that were both additions to the wind ensemble score. It can be clearly seen in the orchestral score that this is intended to be performed on the marimba and I have followed that direction in the re-engraving. Figures 3.47 and 3.48 show the difference between the original orchestral score and the wind ensemble version.

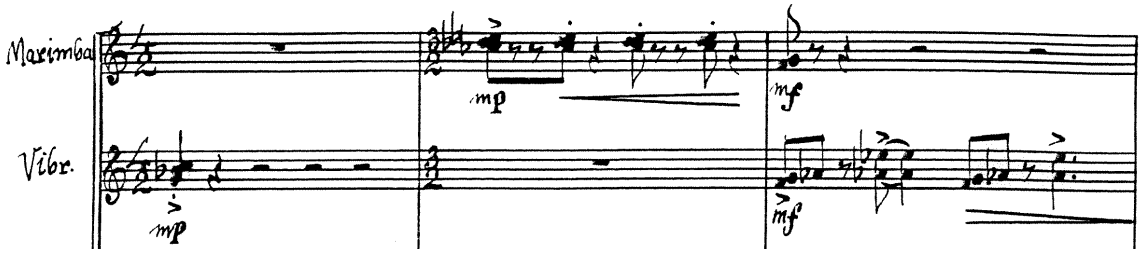

Figure 3.47. Mm. 181-183 orchestral showing mm. 181 on marimba.

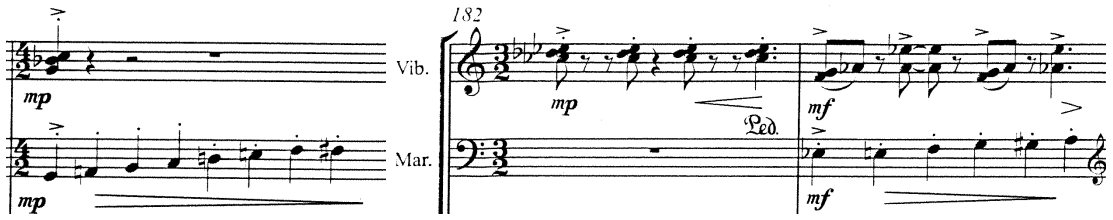

Figure 3.48. Mm. 181-183 wind ensemble showing mm. 181 on vibraphone.

An unexplainable error occurs in mm. 188 of both the wind ensemble version and orchestral scores. The composer writes for the guiro, an instrument of Latin American origin that is scraped with a stick and can produce long or short sounds. In both scores, the instrument is notated on both the third space and fourth line of the staff with no indication as to what is meant by this. In the re-engraving I have chosen to notate the guiro on a single line to avoid any confusion this may cause. The trap-set part contains a crescendo that begins in mm. 200 and ends in mm. 201 but does not specify a final dynamic. The orchestral score instructs the crescendo should end at fortissimo and I have indicated it as such in the re-engraving.

The composer sends two messages to the performer in the triangle part of mm. 213. A note is marked with a "+" indicating a closed note with no ring however it is tied to another note indicating it should have that full value in length. I have solved this by simply removing the tie and turning the extra note into a rest to avoid any confusion. This difference can be seen in Figures 3.49 and 3.50.

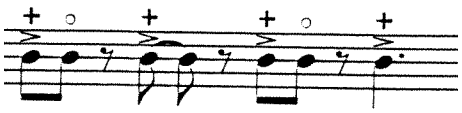

Figure 3.49. Mm. 213 wind ensemble score with closed and tied note value.

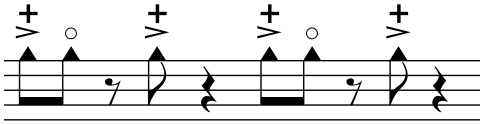

Figure 3.50. Mm. 213 re-engraving with short note values to decrease confusion.

One of the most difficult decisions to make came near the end of the piece in mm. 222. The orchestral score shows an accented and fortissimo high gong strike lasting the full value of the measure. This is completely absent from the wind ensemble score. The note seems too important and aggressive for the composer to have decided to simply omit the instrument entirely. The high gong appears only one other time throughout the score, but it is in a much less exposed and softer section alongside other gongs. Based on these factors, I decided to add the high gong back into my re-engraving of the work. Figures 3.51, 3.52, 3.53, and 3.54 show the orchestral high gong, the missing part in the wind ensemble score, the high gong in the instrument listing of the wind ensemble score, and the re-engraving adding the high gong back into the score, respectively.

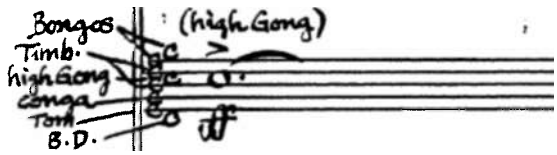

Figure 3.51. Mm. 222 orchestral high gong.

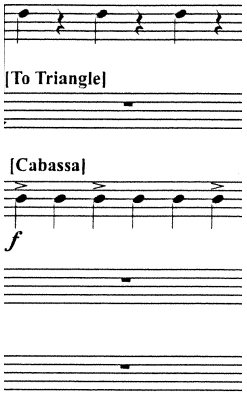

Figure 3.52. Mm. 222 wind ensemble high gong absent.

Percussion (5 players):

Vibraphone, glockenspiel, xylophone, marimba, crotales (chromatic set), chimes, snare drum, military drum, 2 bongos, 2 timbales, low conga, low tom, bass drum, 4 log drums, 4 steel pipes, 2 cowbells, 2 wood blocks, 2 temple blocks, low maracas, high maracas, sandpaper blocks, claves, frusta, 2 cabassas (med, high), L.P. gourd guiro, metal guiro, vibraslap, tambourine, high crash cymbal, med crash cymbal, suspended cymbal (med, high), High Hat, triangle, ratchet, low tam tam, med tam tam, high gong, trap set (snare drum, high tom, low tom, high hat, suspended cymbal, sizzle cymbal, pedal bass drum) anvil

Figure 3.53. Instrument list from wind ensemble showing high gong.

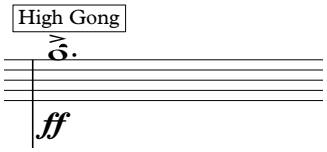

Figure 3.54. Mm. 222 re-engraving high gong added.

Throughout the entire work there are many inconsistencies and notations that make the piece more difficult to interpret and give an accurate performance of by any percussion section. Chief among these concerns is the absence of any notation key instructing the performer what instrument each note represents. Without this, the performer is truly guessing as to what is intended. The best solution to this is contained within the following section discussing individual percussion parts.

Individual Percussion Parts

Manhattan Roll was sent to our group as only a percussion score without individual parts. Upon contacting Schott and discussing what exists, I found that there are no parts and only the percussion score is sent with the piece. The difficulty here is in five or seven players, whichever is used, having to turn thirty-nine pages over the course of a seven-minute piece. In any case, score or parts, page turns must be meticulously thought out allowing the performer a chance to turn the page and not while they are trying to make a fast instrument change. The much simpler solution for all parties is to create individual parts for each player. This way, the editor is not trying to plan thirty-nine page turns, but only four or five. Simpler yet, if the publisher provides single sided pages instead of a booklet there will almost always be time for the performer to turn a page when they so choose, allowing them the most freedom.

Integral to any percussion part is a cover page. A thorough cover page will contain just enough information for the performer to understand any uncommon markings used by the composer without inundating them with unnecessary information. I advise cover pages contain the work's title, the composer, the part title, the instruments

needed, if those instruments are to be shared, a notation key, and a guide to any uncommon symbols used throughout. Figure 3.55 shows the cover created for Percussion 4 of *Manhattan Roll* including all of these elements. All part covers can be found with the individual parts in Appendix C.

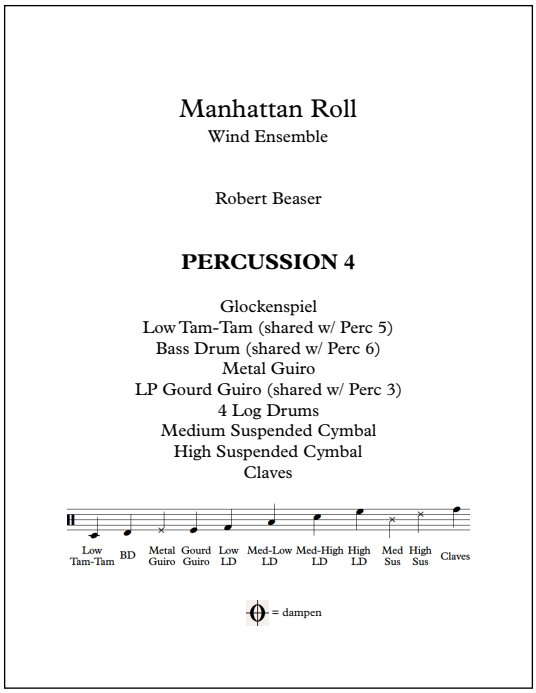

Figure 3.55. Cover page of Percussion 4.

Had these changes been applied to the music we originally performed from many mistakes could have been avoided. I'm sure any composer would agree they would prefer a more accurate performance of their work as opposed to allowing the musicians to guess what it is they truly intend. The concepts applied to *Manhattan Roll* can be used by any composer or publisher when notating and engraving music for percussion and will ensure all parties involved are more pleased with the final product.

Need For Further Study

Upon the completion of this document, it became apparent that this research demands further study. As a first step, I will contact the Percussive Arts Society and suggest partnering with them to update and revise 1973s *Standardization of Percussion Notation*. This revision should include more detailed information than is contained within the 1973 edition as well as necessary updates to the instrument ranges and other quickly evolving areas.

Following work with PAS, I plan to compile this and other information into a detailed text on the notation and engraving of percussion in all settings. This text could be used by professors in orchestration and arranging classes, music technology classes, or by composers working on a new piece, among many others.

This research has led to my working with composers to re-engrave their existing and newly commissioned works. I will continue this work in an attempt to make performing these pieces more user-friendly for all percussionists. With proper permission, standard works from many composers throughout history should be re-engraved and then distributed with updated parts.

The need for this study to continue is crucial as percussion is constantly evolving and is still in our relative infancy. A standard set of rules and guidelines will allow for future works to exist and be performed with minimal complications for the performers aside from successfully executing the music.

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Appendix A: *Manhattan Roll* for Wind Ensemble (Original)

Please access this score by downloading the supplemental file with the same name.

This score was received in booklet form with double-sided pages. For this document it appears as individual, single-sided pages.

Appendix B: *Manhattan Roll* for Wind Ensemble (Re-engraved Score)

Please access this score by downloading the supplemental file with the same name.

This score is intended to be a reference for the performers and should be printed as a booklet with double-sided pages. For this document it appears single-sided.

Appendix C: *Manhattan Roll* for Wind Ensemble (Re-engraved Parts)

Please access these parts by downloading the supplemental file with the same name.

These parts are intended to be used by the players in a performance. They should be printed as seen here: individual single-sided pages.