

THE 10,000-HOUR THRESHOLD:
INTERVIEWS WITH SUCCESSFUL PERCUSSIONISTS

VOLUME ONE

DISSERTATION

A dissertation submitted in partial fulfillment of the requirements for the degree of
Doctor of Musical Arts in the College of Fine Arts at the University of Kentucky.

By
Colin Jeffrey Hill

Lexington, Kentucky

Director: James B. Campbell, Professor of Music

Lexington, Kentucky

2013

Copyright © Colin Jeffrey Hill 2013

ABSTRACT OF DISSERTATION

PRACTICE HABITS OF SUCCESSFUL PERCUSSIONISTS

Musicians are universally reliant on practice to improve and perfect their craft and there is substantial evidence that suggests mastery can only be achieved after 10,000 hours of practice early in life. This dissertation explores the validity of this theory as it pertains to master percussionists and examines their discoveries and recommendations as to how those 10,000 hours should best be spent. Research sources include selected published literature and personal interviews with thirty-six percussionists, conducted between 2010-2013. The research is summarized in the following six sections: the 10,000-hour threshold; planning a practice session; warming up; learning new music; problem spots; and performance preparation. The primary goal of this dissertation is to detail the specific practice methods currently implemented by many of today's most successful percussionists. This research should reveal the various ways success can be achieved in the practice room and help aspiring and accomplished professionals alike explore and integrate new practice methods and philosophies into their own careers and the careers of their students.

KEYWORDS: Percussion, Practice, Performance, Methods, 10,000 Hours.



Student's Signature

September 20, 2013

Date

THE 10,000-HOUR THRESHOLD:
INTERVIEWS WITH SUCCESSFUL PERCUSSIONISTS

By

Colin Hill

James Campbell

Director of Thesis

David Sogin

Director of Graduate Studies

September 20, 2013

TABLE OF CONTENTS

VOLUME ONE

Part One

Acknowledgements.....	v
-----------------------	---

List of Figures	vii
-----------------------	-----

Part Two

Chapter 1: Introduction and Overview	1
--	---

Chapter 2: The 10,000-Hour Threshold.....	14
10,000 Hours.....	14
Prodigies	17
Percussionists Interviewed.....	19
Environmental Limitations	27
Conclusion	30

Chapter 3: Planning a Practice Session.....	34
Practice Environment.....	35
Planning Methods	39
Mapped Out Schedule.....	39
Timer.....	49
Priority List	50
Goal-Oriented	52
Consequence-Oriented.....	55
Conclusion	58

Chapter 4: Warming Up.....	61
Reasons for Warming Up.....	61

Warm-up the Body.....	61
Warm-up the Brain	62
Diagnose the Body	64
Four Warm-up Categories.....	65
I. Kinesthetic Warm-ups	65
II. Technique and Accuracy-based Warm-ups.....	68
Warm-ups on Mallet Instruments	71
Warm-ups on Snare Drum	74
Warm-ups on Timpani	77
III. Music-based Warm-ups	78
IV. Improvisation and Theory-based Warm-ups	84
Warm-up Length.....	87
Little or No Warm-up	88
Conclusion	89
 Chapter 5: Learning New Music.....	 93
Overview of the Piece.....	93
Sight-reading on the Instrument.....	95
Studying Away from the Instrument.....	96
Listening to Recordings	98
Scheduling Goals	99
Order of Learning	101
Learning Beginning to End.....	101
Learning End to Beginning.....	103
Learning Hardest Sections First.....	105
Learning Based on Form.....	107
Learning Philosophies and Approaches.....	109
Learn Correctly	109
Memorization	118
Partial Memorization	122
Memorization Methods.....	124
Identify Structure to Help Memorization.....	127
Mental Techniques.....	130

Visualize the Score	133
Visualize the Instrument	135
Aural Recognition and Memorization	136
Plan Logistics.....	138
Avoiding Memory Slips.....	139
Slow Practice	140
Muscle Memory	143
Triple Channel Learning.....	145
Correct Input	146
Concentration.....	147
Create Triggers.....	152
Stop and Start Anywhere	153
Anxiety Induced Memory Slips.....	155
Listening to Existing Recordings.....	156
Solo Music: Negatives of Listening to Recordings	156
Solo Music: Advantages to Listening to Recordings.....	159
Solo Music: Recordings Aid in Learning Process	161
Solo Music: Use Recordings to Learn Style.....	163
Ensemble Music.....	164
Conclusion	166
 Chapter 6: Problem Spots	 170
Identify the Problem Spot.....	173
Incorrect Muscle Memory.....	178
Isolate and Surround	184
Imbalance of Kinesthetic and Mental Retention.....	187
Technical Deficiencies.....	192
Hands Separate.....	195
Tempo	197
Conclusion	198
 Chapter 7: Performance Preparation.....	 202
Preparation Time Table.....	202

Practice Habits Leading up to Performance.....	204
Habits Don't Change.....	204
Practice More	205
Practice Less	206
Mental Practice	207
Change Focus.....	208
Simulate Performance.....	213
Play for People.....	216
Self-Recordings.....	221
Performance Day Rituals (Physical/Psychological)	229
Physical Rituals.....	230
Sleep and Rest.....	231
Exercise.....	232
Diet.....	236
Psychological Rituals.....	239
Performance Day Routines	240
Rituals Prior to Performance.....	243
No Ritual.....	247
Performance Mentality.....	249
Audience Expectations.....	249
Personal Expectations	250
Positive Reinforcement.....	253
Personal Tendencies.....	255
Conclusion	258
Chapter 8: Conclusion.....	261
Further Research	263
Practical Applications	265

ACKNOWLEDGEMENTS

First, I would like to thank the thirty-six percussionists who participated in this dissertation. These interviews served as the primary research for my dissertation and their willingness to participate made my research possible. Their remarkable proficiency and wisdom provided incredible insight into the practice habits of successful percussionists and the pursuit of mastery.

I would like to thank my wife, Mallory, for her continuous love and encouragement. At times, completing this dissertation was probably harder on her than it was on me, and I am incredibly grateful for her unwavering patience and support. In addition, Mallory has financially supported our family the past five years, allowing me to pursue and complete two graduate degrees. Without her hard work and sacrifice, this dissertation truly would not have been possible. I am so lucky to have such a smart and beautiful wife who is supportive of everything I do. She is the most important person in my life and I am proud that we completed this degree together.

I would also like to thank my professor and mentor James Campbell. He has taught me so much about what it means to be a great educator, colleague, and friend. It is incredible how much he genuinely cares for his students and I am forever grateful to have had the opportunity to study with him. He has undoubtedly made me a better musician and teacher, but more importantly a better person, husband, and father. His impact on my life has been immeasurable and goes far beyond my education in percussion.

Lastly, I would like to thank my parents, Marlene and Todd. Everything I have been able to achieve to this point in my life is because of them. I feel so fortunate to have been raised in a household that emphasized such strong family values. They taught my sister and I the importance of compassion, education, hard work, and humility, all by example. My parents are remarkable people whose success in both their careers and personal lives is something I will always strive to achieve. I hope that someday my children will feel as fortunate and privileged as I, when reflecting on their childhood experiences and family relationships.

LIST OF FIGURES

Figure 1	17
Figure 2	21
Figure 3	22
Figure 4	23
Figure 5	24
Figure 6	25
Figure 7	26
Figure 8	28
Figure 9	29
Figure 10	31
Figure 11	33
Figure 12	48
Figure 13	59
Figure 14	60
Figure 15	91
Figure 16	92
Figure 17	125
Figure 18	126
Figure 19	167
Figure 20	169
Figure 21	200
Figure 22	201
Figure 23	259
Figure 24	260

CHAPTER 1: INTRODUCTION AND OVERVIEW

Throughout the history of music, there have emerged masterful musicians. Every era, culture, and genre of music has given rise to virtuosos who left an indelible mark in their field. And although there are various forms of music mastery and the judge of mastery is subjectively evaluated by particular cultural aesthetics, in all cases, a master is one who achieves at a level beyond their peers. Some virtuosos become legendary and are widely studied for generations, while others manage little notoriety outside their field of expertise.

Attainment of mastery in music, just as it is in most fields of endeavor, is typically attributed to two root sources. Some argue that mastery is predominantly a consequence of innate talent. Advocates of this argument believe that achievement of true virtuosity is only possible to those born with extraordinary physical and mental characteristics that cannot otherwise be learned or developed.

On the other side of that debate are those who believe mastery is only possible as a result of a relentless drive to achieve, manifested by countless hours of hard work and determination.

The music world is continuously amazed and inspired by the incredible ability and innovation displayed by the world's top percussionists. But how have these individuals

achieved such mastery? Were they each born with an extraordinary level of innate talent or has their achievement primarily been a result of tenacious practice and perseverance? While there must be compelling arguments supporting both schools of thought, perhaps all would agree that if one of these is the primary influence, the other is a significant counterpart.

This dissertation is not an investigation into that debate, but simply a study of practice habits, which certainly falls into the category of hard work and determination. For anyone pursuing mastery in his or her field of choice, there is obviously nothing they can do about their innate talent. In the future, there may come a time when it might be manipulated, but until then, talent is nature's roll of the dice; and for those among the living, that die is cast. So the most that anyone can do to advance their own pursuit of mastery is to master hard work and determination.

Calvin Coolidge, for one, weighed in on this side, and while he was talking more about mankind's collective mastery than as individuals, his words bear repeating:

Nothing in the world can take the place of persistence. Talent will not; nothing is more common than unsuccessful men with talent. Genius will not; unrewarded genius is almost a proverb. Education will not; the world is full of educated derelicts. Persistence and determination alone are omnipotent. The slogan 'press on' has solved and always will solve the problems of the human race.¹

In the field of music, all performers, from beginners to world-renowned, share the common path of devotion to practice. The Merriam-Webster Dictionary defines practice

¹ "Calvin Coolidge," *The Oxford Dictionary of Quotations*. 5th ed. 1999, 236.

as “to perform or work at repeatedly so as to become proficient.”² Musicians, like so many other professionals, rely on practice to perfect their skills and progress within their craft. While practice would not seem to be coupled with innate talent, the methods one chooses from among the countless options available to practice and learn music is certainly a reflection of their individuality, if not innate talent. As a result, the study of practice methods may provide some insight into both origins of mastery.

While a variety of practice methods and philosophies are commonly documented in method books and periodicals, there are very few sources available that compare outcomes between the multiplicity of practice methods and philosophies. Further, there are no known sources that compare the practice methods, philosophies, and personal habits of today’s most successful percussionists. Doing so would help connect theory with practice by identifying the methods and philosophies currently implemented and which, if any of them, seem to be shared by a majority of those most successful in the field. How do the current masters practice? How much time do they dedicate to practice? What practice habits and methods do they credit most for their success? I decided that asking the masters themselves was the best way to try to answer these questions.

Gratefully, over the last three years I’ve had the opportunity to interview thirty-six highly successful percussionists who are widely hailed as among the best performers and educators in their field. I chose musicians who were at various stages of their careers and with diverse areas of expertise, but who had all achieved mastery on their instrument. The

² “Practice,” Def. 2a, *Merriam Webster Online Dictionary*, Merriam-Webster, 2011, 17 Dec. 2012, <www.merriam-webster.com>

group ranged from seasoned orchestral players to in-demand soloists, and from young virtuosos to legendary hall-of-famers. By including a wide range of classical percussionists, I hoped to reveal those practice methods and philosophies shared by all great percussionists.

The thirty-six percussionists interviewed are listed below, in alphabetical order:

1. Joakim Anterot - Professor of Percussion at the Royal College of Music in Stockholm, percussionist with the Royal Stockholm Opera, and percussionist with the Swedish Radio Symphony Orchestra.
2. Jason Baker - Director of Percussion Studies and Assistant Professor of Music at Mississippi State University, Principal Timpanist of the Tupelo Symphony Orchestra, and Principal Percussionist of the Starkville Symphony Orchestra.
3. Kevin Bobo - Associate Percussion Professor at the Indiana University.
4. Michael Burritt - Professor of Percussion and Head of the Department at the Eastman School of Music.
5. Thomas Burritt - Associate Professor of Music at the University of Texas at Austin.
6. James Campbell - Professor of Music and Director of Percussion Studies at the University of Kentucky, Principal Percussionist of the Lexington Philharmonic, past President of the Percussive Arts Society, DCI Hall of Fame, and BOA Hall of Fame.
7. Omar Carmenates – Assistant Professor of Percussion at Furman University, member of the Nief-Norf chamber ensemble, and Percussion Arranger for the Sprit of Atlanta Drum & Bugle Corps.
8. Gary Cook - Retired Professor Emeritus and Director of Percussion Studies at the University of Arizona, retired Timpanist and Principal Percussionist with the Tucson Symphony Orchestra, and past President of the Percussive Arts Society.
9. Christopher Deane - Associate Professor in Percussion at the University of North Texas and retired Principal Timpanist of the Greensboro Symphony.
10. Bret Dietz - Associate Professor of Percussion at the Louisiana State University School of Music.
11. Matthew Duvall - Percussionist with Eighth Blackbird chamber ensemble.
12. I-Jen Fang - Percussion faculty at the McIntire Department of Music at the University of Virginia and Principal Timpanist and Percussionist of the

- Charlottesville Symphony Orchestra.
13. Mark Ford - Coordinator of Percussion Activities at the University of North Texas and past President of the Percussive Arts Society.
 14. Andy Harnsberger - Assistant Professor of Music and Percussion Coordinator at Lee University.
 15. Anders Holdar - Co-founder of world-renowned Kroumata Percussion Ensemble and Professor of Percussion at the University College of Music Education in Stockholm.
 16. John Lane - Director of Percussion Studies and Assistant Professor at Sam Houston State University.
 17. Julie Licata - Assistant Professor of Music at the State University of New York College at Oneonta.
 18. Frederic Macarez - Principal Timpanist of the Orchestre de Paris and Director of the Percussion Studies at the Conservatoire National de Région de Paris.
 19. Payton MacDonald - Associate Professor of Music at William Paterson University and founding member of Alarm Will Sound and Super Marimba.
 20. Brian Mason - Associate Professor of Percussion at Morehead State University and Percussionist with the Lexington Philharmonic Orchestra.
 21. William Moersch - Chair of the Percussion Division at the University of Illinois, Principal Timpanist/Percussionist of Sinfonia da Camera, and Artistic Director of New Music Marimba.
 22. Jason Nicholson - Assistant Professor of Percussion at Utah State University.
 23. Brian Nozny - percussion faculty at Troy University.
 24. John Parks - Associate Professor of Percussion at Florida State University and faculty member at the Eastern Music Festival
 25. Paul Rennick - Percussion faculty at the University of North Texas and Percussion Caption Head of the Santa Clara Vanguard Drum & Bugle Corps.
 26. Emil Richards- Long-time studio musician and freelance percussionist and member of the Percussive Arts Society Hall of Fame.
 27. Steven Schick - Professor of Music at the University of California and Consulting Artist in Percussion at the Manhattan School of Music.
 28. Robert Schietroma - Retired Regents professor at the University of North Texas and past President of the Percussive Arts Society.
 29. Josh Smith - Assistant Professor of Music at Bethel College.
 30. Gordon Stout - Professor of Percussion at Ithaca College and member of the Percussive Arts Society Hall of Fame.
 31. John Tafoya - Chairman of the Percussion Department and Professor of Percussion at Indiana University and retired timpanist of the National Symphony Orchestra.
 32. Blake Tyson - Associate Professor of Percussion at the University of Central

Arkansas.

33. Michael Udow - Retired Professor Emeritus of Percussion at University of Michigan and retired Principal Percussionist of the Santa Fe Opera.
34. Ben Wahlund - Director of Percussion at Naperville Central High School and Adjunct Faculty at North Central College in Naperville, Illinois.
35. Eric Willie - Assistant Professor of Percussion at Tennessee Tech University and member of the Nief-Norf chamber ensemble.
36. Brian Zator - Director of Percussion at Texas A&M University - Commerce and Principal Timpanist and Percussionist with the Northeast Texas Symphony.

Each percussionist was asked ten questions about their personal practice habits. These questions were formulated to explore all aspects of the practice process including warming up, learning new music, practicing problem spots, referencing existing recordings, memorization, self-critiquing, performance preparation, and the amount of time spent practicing during different periods of their life.

The ten questions asked are listed below:

1. If you have a regular warm up routine, could you please describe it?
2. How do you go about learning new music? Do you have a regular process?
3. When learning new material, do you typically listen to existing recordings? If so, how frequently and during what stage of your progress?
4. When performing, how much of what you play is memorized? Do you utilize any mental or physical methods during or before the performance to avoid memory slips?
5. How do you practice problem spots?
6. How often do you record yourself?
7. Do you practice differently the weeks and days leading up to a performance?

8. Do you have a ritual the day of the performance?
9. How old were you when you started playing percussion? At what age did you start focusing on your “primary” instrument?

Please give your best guess as to the number of hours per day you spent practicing during the given time periods: middle school, high school, undergrad, graduate school, early career, and currently.

10. Do you believe your practice habits have contributed to your success?

Initially, I planned to conduct these interviews via email, but after receiving very few initial responses, it was apparent that ‘in person’ interviews would be necessary. The first few were conducted at times and places of their choosing, but reaching out to all of them that way would have required a cost prohibitive amount of travel. So I had to find a more creative means to sit with each of them.

The Percussive Arts Society International Convention (PASIC) provided the ideal venue. PASIC is the largest and most widely attended percussion event in the world and is held annually in a U.S. city. Over the course of the past three conferences, I have been able to interview most of my desired subjects while they were attending the conference. I used a digital recorder to capture the interviews, which on average took about thirty minutes. Later I transcribed each of the thirty-six interviews to written form.

Throughout this process, I have come to appreciate several advantages of face-to-face interviews compared to email. First, I was able to immediately ask clarifying questions if an interviewee’s answer was unclear, had drifted off topic, or had touched on a related

subject of interest. Doing that unearthed a great deal of subtle material that helped enrich their explanations. Second, I found that people naturally elaborate much more when speaking face-to-face, compared to writing. Third, and most importantly, people were much more enthusiastic about participating in this study when our interactions were to be face-to-face, rather than email. And while it took mutual persistence to complete every interview, eventually the targeted artists did participate.

Naturally, each of the individuals interviewed possess different personalities, learning styles, innate talents, and musical backgrounds, and it was almost immediately apparent that there would be no single practice method or philosophy that proved universally successful. Further, the influence of the various instruments, musical styles, and mentors inherently favor some methods and philosophies over others. For those reasons and others, each individual's practice habits turn out to be as distinctive as their playing style. Not only did there seem to be an unlimited number of methods and philosophies, but also many of their habits and preferences were in direct contradiction with each other's. However, one commonality found among all thirty-six interviewees was an extreme devotion of both time and thought to practice. This discovery is consistent with other studies done on the topic of high achievement, which will be discussed in chapter two. These studies are not limited to music or to any specific field, but were collected under the umbrella topic of *success*.

As is argued in chapter two, in order to be a successful percussionist, one must commit to significant practice time. Statistics strongly indicate that there is no substitute for putting

in at least 10,000 hours of practice early in life. However, *how* these hours should be best spent is much less certain.

The goal of this dissertation is to create a resource that documents how these thirty-six percussionists spent their 10,000 hours in the practice room. The wide variety of practice methods and philosophies of these current masters should be very useful to players, helping them acquire methods and techniques that may otherwise take a lifetime to develop or discover.

Due to the sheer number of methods presented in this document, I have included a brief survey at the end of each chapter to help guide the reader in choosing the methods that are most compatible with their needs and learning style. While the survey recommends particular methods based on the reader's 'practice personality,' all of these methods and philosophies have led to successful careers and should be explored. Developing an ideal practice method is a highly personalized process that requires years of fine-tuning. Every individual learns and functions differently so finding that unique combination of methods and philosophies that is ideal for an individual may take years. One may feel certain that the system they currently utilize is ideal, but until other preferred, proven techniques are investigated, that belief is almost certainly self-limiting.

The magnitude of the data collected from the thirty-six interviews was simply too much to incorporate in narrative form so I have included the complete transcriptions of all thirty-six interviews in a second volume. If the reader finds they are continuously

intrigued by a particular individual's practice methods and philosophies, they are strongly encourage to take the time to read that individual's entire interview.

This dissertation accurately documents how the world's most successful percussionists practice. The methods and philosophies presented are not theoretical suggestions from a single author's perspective. They are the proven practice systems of true masters. This document will expose readers to the endless possibilities in the practice room, aiding in the discovery of methods that are most effective for themselves, as well as their students.

Chapter 2 examines the number of hours it takes to master a musical instrument, according to statistics. As mentioned, some believe that mastery is mostly attributable to innate talent, while others say it can only be achieved through hard work and determination. Malcolm Gladwell's research indicates that mastery is only achieved after 10,000 hours of practice. Of the thirty-six people interviewed, 100% of them practiced obsessively at one (or more) stage(s) of their lives. And although the interviewees experienced a wide variety of initial starting ages, quality of instruction, and innate talent, the one consistent characteristic in all cases was hard work and determination in the practice room. The data collected from the musicians interviewed is summarized in this chapter and compared with Gladwell's theory.

Chapter 3 of this thesis focuses on the importance of planning practice sessions. For nearly all musicians, practice time is a very scarce commodity. The ongoing balancing act between music, school, work, and personal relationships is very challenging for most.

It seems that all musicians have enjoyed periods in their lives when they were able to dedicate considerable time to mastering their instrument, but this luxury usually vanishes long before they are ready. The ability to take full advantage of any available practice time is an essential skill that must be developed and perfected. Every musician has experienced practice sessions that were unproductive and disconnected. Through thoughtful and tactical planning, both efficiency and productivity can be maximized in each and every practice session. There are many different ways to plan a practice session and the method that works best depends on the goals and personal learning styles of each individual.

Chapter 4 discusses warming up. Every musician understands the importance of injury prevention through proper warm-ups, but many struggle to consistently commit their scarce time to this portion of the practice activity. Many of the musicians interviewed shared clever ways to warm up without sacrificing productivity. While warm-ups are usually associated with warming up the body, many of the percussionists interviewed use this time to improve particular techniques and fundamentals as well as develop mental focus. This chapter discusses how musicians approach warming-up and describes their various routines.

Chapter 5 covers the different methods used to learn new music. There are many published resources on this topic, but these interviews highlighted the methods most commonly used among successful percussionists and exposed new methods that were truly unique. Some methods emphasize the importance of mental visualization while

others stress the need for kinesthetic repetition. There are also a wide variety of ideas concerning the order in which a piece should be learned. The popular debate of listening to pre-existing recordings when learning a new piece is also explored. With the growing presence of YouTube as a backdrop, the responses were very contrasting and highly opinionated. This chapter also explores the intangible process of memorization, sharing the amazing techniques of individuals who seem to memorize music effortlessly, as well as those who inherently struggle with it. There are also those who prefer not to memorize their music and their rationale and perceived advantages are explored and discussed. For the majority of performers who do memorize, this chapter also examines how the masters try to avoid memory slips on stage.

Chapter 6 investigates methods used to work on problem spots. The first step to correcting a problem spot is to accurately identify the precise moment of difficulty, which is not always as easy as it sounds. Once this has been established, there are numerous methods and philosophies that can be used to rectify the problem. Some musicians choose to focus on mental aspects, while others rely purely on kinesthetic repetition. Although different types of problems certainly require different approaches, the variety of methods used by those interviewed was staggering.

Chapter 7 discusses how to best prepare for performances. While most believe that mastery is achieved in the practice room, all understand that the pursuit of mastery can quickly turn to misery on stage. Anxiety stems from the mental restrictions individuals place on themselves, as well as deficiencies in the mindset needed to execute a successful

performance. And while some performance challenges are related to environment, more often they seem to be associated with inner conflicts between success and failure. This chapter compares various methods used to prepare for a performance. This includes the change in practice habits the weeks and days leading up to a performance, performance day rituals and routines, and other mental and physical preparations used by successful musicians to counteract the debilitating affect of performance anxiety. Some routines and rituals are highly idiosyncratic, while others purposely avoid diverging from normal routines. Performance anxiety is something all musicians deal with on a regular basis. This chapter discusses the multitude of mental and physical methods that can be used to help reduce these incapacitating effects.

CHAPTER 2: The 10,000-Hour Threshold

When looking at the data collected from the thirty-six percussionists interviewed, one trend emerged with regard to practice hours. Question nine asked each percussionist to give their best estimate as to the number of hours per day they spent practicing during various time periods of their lives, from middle school to the present time. Every percussionist interviewed exhibited surprisingly similar habits with regard to practice hours over the course of their career, beginning with the age they first learned to play percussion.

In all thirty-six cases, the numbers were amazingly high, and in a few cases, the numbers were astonishing. The data collected from this question is consistent with other studies that have been done on the topic of high achievement. These studies are not limited to music, or to any specific field but were collected under the umbrella topic of success. As is evident from the biographies of all of the percussionists interviewed, all thirty-six have been highly successful in their field.

~ 10,000 Hours ~

Success is typically attributed to the combination of both talent and hard work. In Malcolm Gladwell's book, *The Outliers*, Gladwell studied the practice trends of highly successful people. The closer he studied the habits of the most gifted and successful, "the

smaller the role innate talent seems to play and the bigger the role preparation seems to play.”³

This premise is also supported by a series of studies done in the early 1990’s by psychologist K. Anders Ericsson and two of his colleagues, Ralf Krampe and Clemens Tesch-Römer. Ericsson’s team studied the violinists at the Music Academy in West Berlin (Hochschule der Kuenste), which had an “international reputation for its training program for violinists.” With the help of the Academy’s professors, all of the violinists were divided into three groups. The first group was comprised of the Academy’s “best violinists.” According to the professors, these students were most likely to become world-class soloists. The second group was made up of the “good violinists,” and the third group, titled “music teachers,” consisted of violinists from the music education department of the academy. This department had “lower admission standards,” and the level of playing was significantly lower. Ericsson and his team then asked each player to “estimate how many hours per week they had practiced alone with the violin for each year since they had started to practice.”⁴

The violinists in all three groups started playing at approximately the same age, five years old and during the first few years of playing, the practice hours between the three groups were very similar, about two or three hours per week. When the students got to be around age eight, a difference began to emerge. The group of students who would eventually

³ Malcolm Gladwell, *Outliers: The Story of Success*, (New York, NY: Little, Brown and Company, 2008), 38.

⁴ K. Anders Ericsson, et al., “The role of deliberate practice in the acquisition of expert performance,” *Psychological Review* 100 No. 3 (1993): 363-406.

become the ‘best violinists’ started practicing much more than everyone else: six hours a week by age nine, eight hours a week by age twelve, sixteen hours a week by age fourteen, and this trend continued until they reached the age of twenty, at which time they were putting in thirty hours per week. When all of the hours were added up for each player, the ‘best violinists’ had on average totaled 10,000 hours by the age of twenty, while the ‘good violinists’ averaged 8,000 hours and the ‘music teachers’ averaged 4,000 hours by this same age.

Ericsson and his colleagues conducted a similar study, this time comparing the practice hours of amateur pianists with professional pianists. The average age of all the subjects was 24.3 years and the professional pianists were trained at the Music Academy in West Berlin while the amateur pianists were “recruited through newspaper and campus ads.”⁵ The results (See Figure 4) were very similar to the study with the violinists. When the total hours were analyzed for this data, the results were again remarkably similar to the violinists’ data. The amateurs on average totaled 2,000 hours by age twenty and the professionals, like the violinists, reached 10,000 hours by approximately age twenty.

⁵ K. Anders Ericsson, et al., “The role of deliberate practice in the acquisition of expert performance,” *Psychological Review* 100 No. 3 (1993): 363-406.

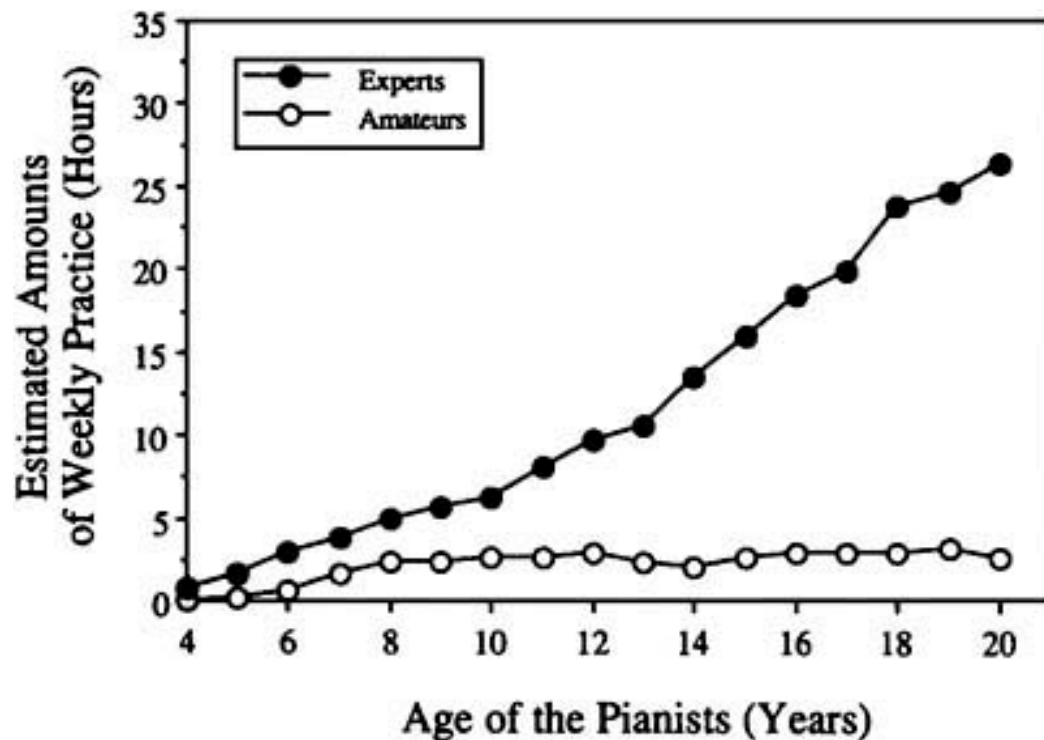


Figure 1: Ericsson's graph of the average practice hours/week for expert and amateur pianists.⁶

~ Prodigies ~

Probably the most interesting finding of Ericsson's studies was that among violinists and pianists, there were no 'naturals,' as defined by "musicians who floated effortlessly to the top while practicing a fraction of the time their peers did." Similarly, Ericsson and his colleagues didn't find any 'grinds,' "people who worked harder than everyone else yet just didn't have what it takes to break the top ranks."⁷

⁶ K. Anders Ericsson, et al., "The role of deliberate practice in the acquisition of expert performance," *Psychological Review* 100 No. 3 (1993): 363-406

⁷ Malcolm Gladwell, *Outliers: The Story of Success*, (New York, NY: Little, Brown and Company, 2008), 39.

This finding is intriguing, as the existence of ‘natural talent’ seems so obviously apparent in child prodigies. To explore this idea further, consider the most famous child prodigy in music history, Wolfgang Amadeus Mozart. Psychologist Michael Howe believes that Mozart was really no different than the violinists and pianists in Ericsson’s study. While Mozart started composing music at the age of six and was widely considered a childhood genius, Howe argues that these claims are exaggerated. In his book, *Genius Explained*, Howe points out that “by the standards of mature composers, Mozart’s early works are not outstanding. The earliest pieces were all probably written down by his father, and perhaps improved in the process.” Further, Howe claims that Mozart’s first seven concertos for piano and orchestra were “largely arrangements of works by other composers.” Howe believes that Mozart’s first true masterwork, containing purely original music, was “No. 9, K. 271, [which] was not composed until he was twenty-one: by that time Mozart had already been composing concertos for ten years.”⁸ Based on this argument, Gladwell is convinced that not even prodigies are exempt from putting in the necessary practice hours. “Even Mozart - the greatest musical prodigy of all time - couldn’t hit his stride until he had his 10,000 hours,” said Gladwell. “The thing that distinguishes one performer from another is how hard he or she works. That’s it.”⁹ George Leonard, in his book titled *Mastery*, states that:

[People] tend to assume that [mastery] requires a special ticket available only to those born with exceptional abilities. But mastery isn’t reserved for the super talented or even for those who are fortunate enough to have

⁸ Michael J.A. Howe, *Genius Explained*, (Cambridge, MA: Cambridge University press, 1999), 3.

⁹ Malcolm Gladwell, *Outliers: The Story of Success*, (New York, NY: Little, Brown and Company, 2008), 39.

*gotten an early start. It's available to anyone who is willing to get on the path and stay on it - regardless of age, sex, or previous experience."*¹⁰

The correlation between achieving musical success and practicing 10,000 hours doesn't only apply to music. The benchmark of 10,000 hours has been a consistent trend among highly successful people in all fields. Neurologist Daniel Levitin has done extensive research on the habits of 'world-class experts.' In his book, *This is Your Brain on Music: The Science of a Human Obsession*, he too revealed a reoccurring pattern of 10,000 hours.

*The emerging picture from such studies is that 10,000 hours of practice is required to achieve the level of mastery associated with being a world-class expert - in anything. In study after study, of composers, basketball players, fiction writers, ice skaters, concert pianists, chess players, master criminals, and what have you, this number comes up again and again. Of course, this doesn't address why some people get more out of their practice sessions than others do. But no one has yet found a case in which true world-class expertise was accomplished in less time. It seems that it takes the brain this long to assimilate all that it needs to know to achieve true mastery.*¹¹

~ Percussionists Interviewed ~

So how do the percussionists interviewed compare? Does the 10,000 hours rule seem to apply to this field of study as well? To answer this question, some other details regarding their background and specific habits must be explored.

¹⁰ George Leonard, *Mastery: The Keys to Success and Long-Term Fulfillment*, (New York, NY: Penguin Books LTD, 1992, 5.

¹¹ Daniel J. Levitin, *This is your brain on music: the science of a human Obsession*, (New York, NY: Dutton, 2006), 197.

The average starting age of the percussionists interviewed was 9.4 years old. This is much older than the average starting age of the violinists in Ericsson's study, who on average started at age five. This may be explained by the fact that for many of the percussionists interviewed, percussion was their second instrument. Most started on piano or a string instrument in elementary school and switched to percussion in middle school.

Data was not collected for the percussionists interviewed between the ages of nine and eleven because according to Ericsson's studies, during the first three years of study, "everyone practiced roughly the same amount, about two or three hours a week." It wasn't until the fourth year of study that "real differences started to emerge."¹²

¹² K. Anders Ericsson, et al., "The role of deliberate practice in the acquisition of expert performance," *Psychological Review* 100 No. 3 (1993): 363-406.

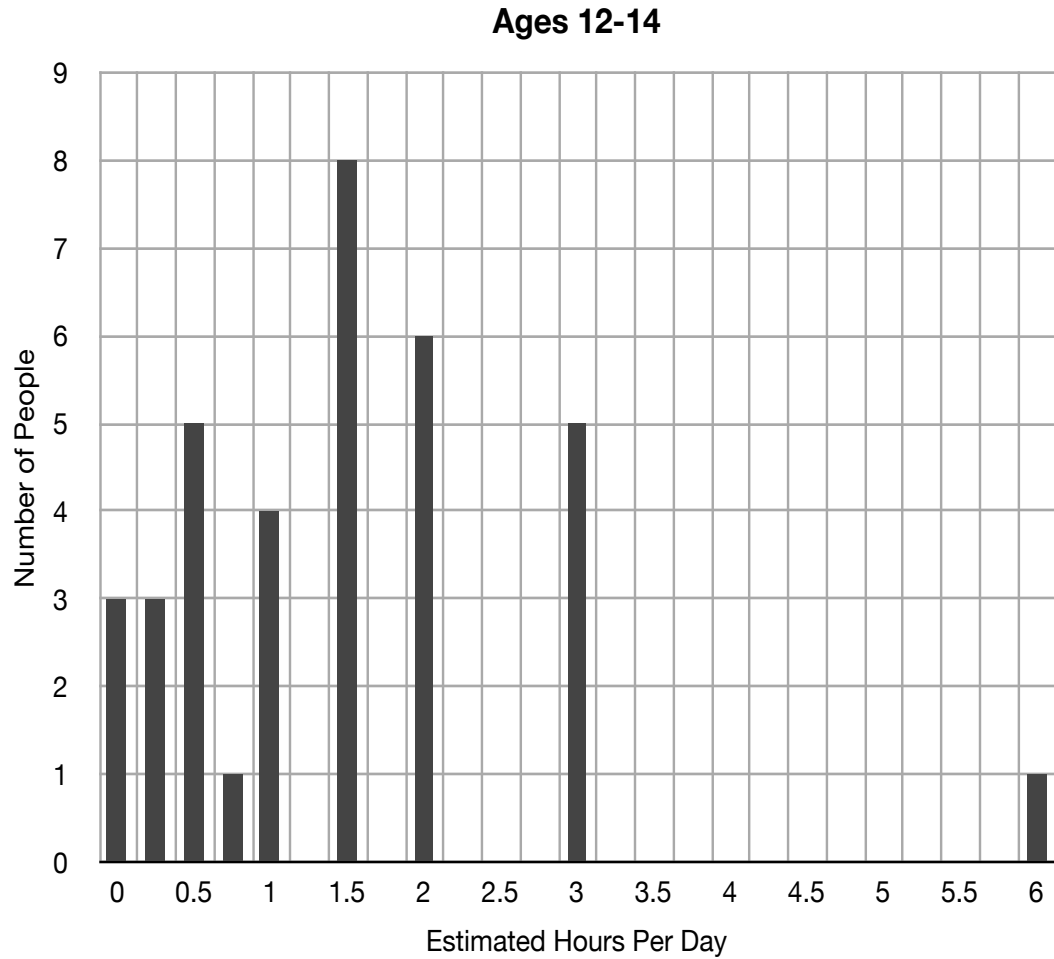


Figure 2: The graph above shows the practice hours of the thirty-six percussionists interviewed between the ages of 12-14.

While most of the percussionists interviewed practiced between zero and three hours per day, at this stage of their early lives, Paul Rennick is the obvious outlier at six hours per day. The average practice time for the thirty-six percussionists interviewed between the ages of twelve and fourteen was 1.6 hours of practice per day.

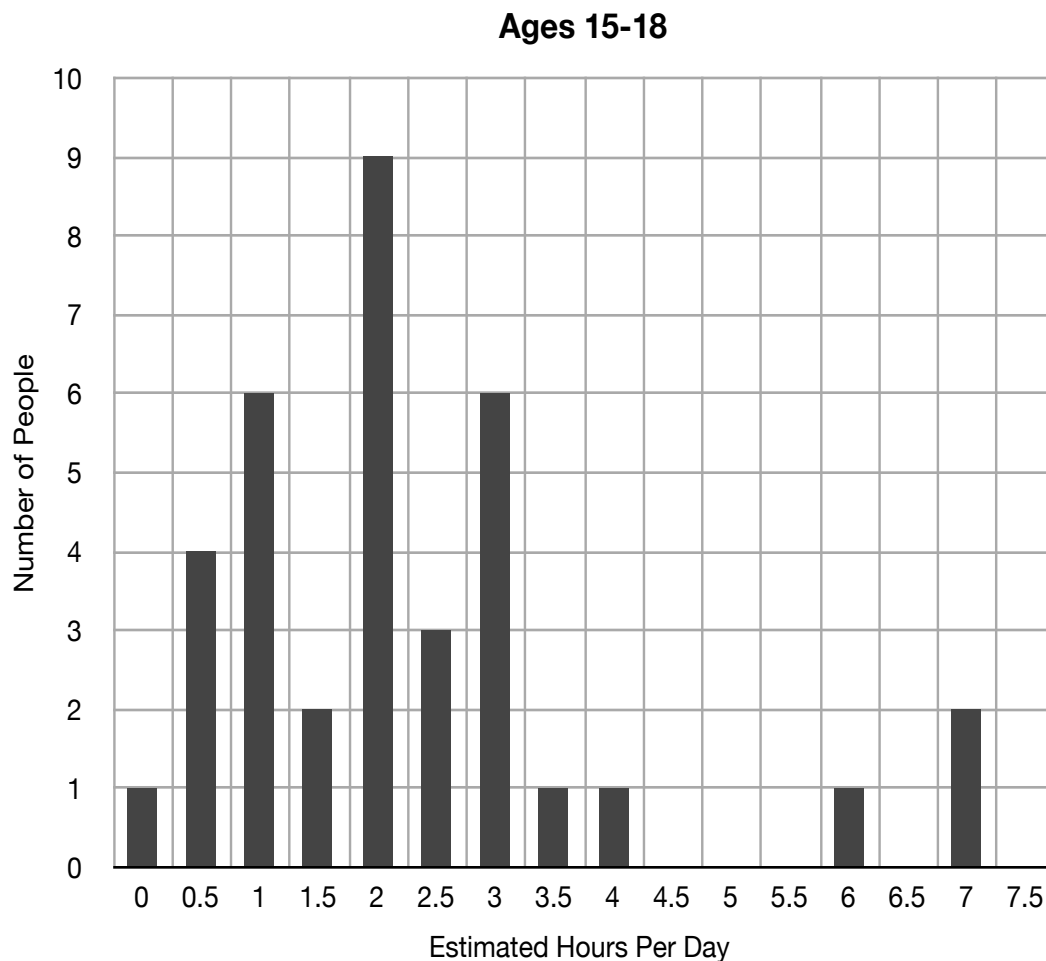


Figure 3: The graph above shows the practice hours of the thirty-six percussionists interviewed between the ages of 15-18.

The outliers in the group include Paul Rennick, Gary Cook, and Joakim Anterot, who practiced an average of six, seven, and seven hours per day respectively. The average of the thirty-six percussionists interviewed during this age, fifteen to eighteen, was 2.3 hours of practice per day.

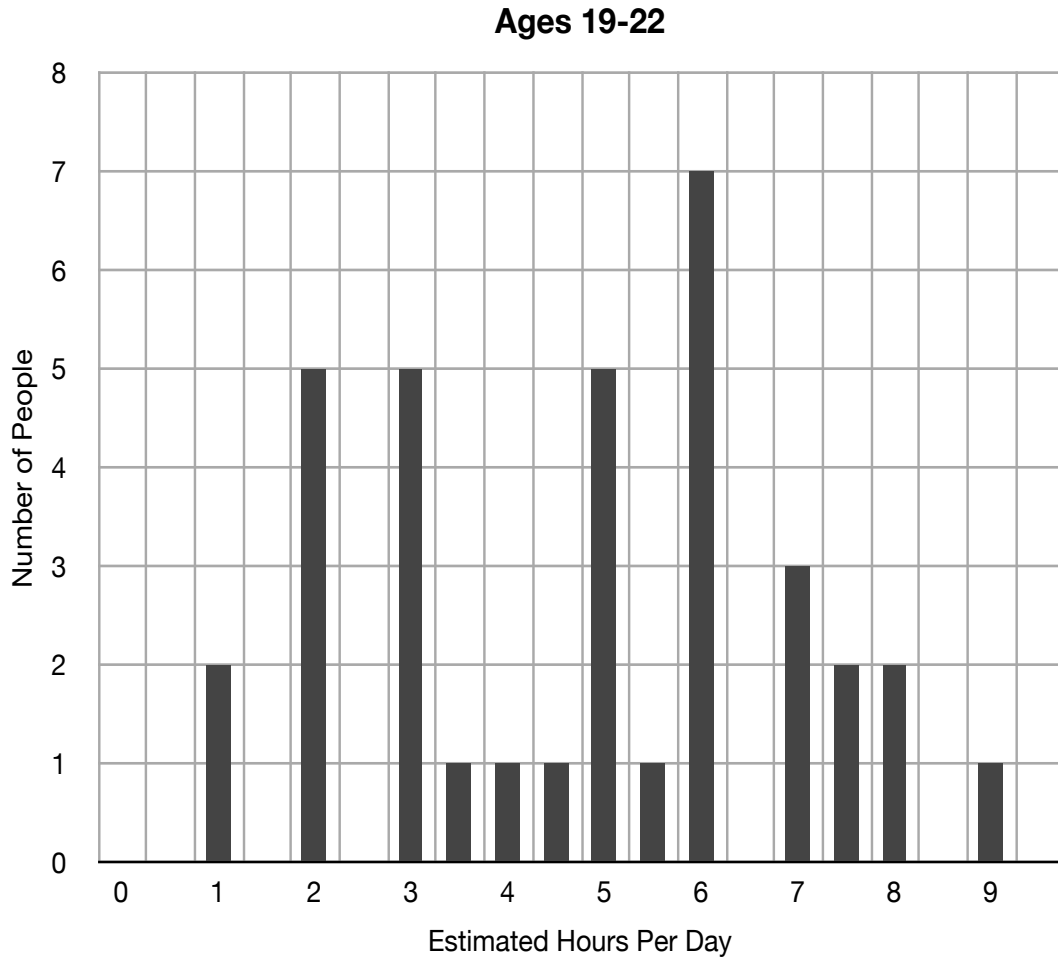


Figure 4: The graph above shows the practice hours of the thirty-six percussionists interviewed between the ages of 19-22.

The average daily practice time of the thirty-six percussionists interviewed was 4.8 hours per day at this age, nineteen to twenty-two. According to Ericsson, Levitin, and Gladwell, the thirty-six ‘successful’ percussionists interviewed should have reached a total of 10,000 by around the age of twenty. To find the average sum of the percussionists interviewed, a few things must be assumed. As previously mentioned, the percussionists interviewed were not asked how many hours per day they practiced during the first three years of study because according to Ericsson, during this time, “everyone practiced roughly

the same amount, about two or three hours a week.”¹³ Therefore, for this study it was assumed that the percussionists interviewed averaged 2.5 hours per week, which equates to about twenty minutes per day, for their first three years of study, ages nine to eleven.

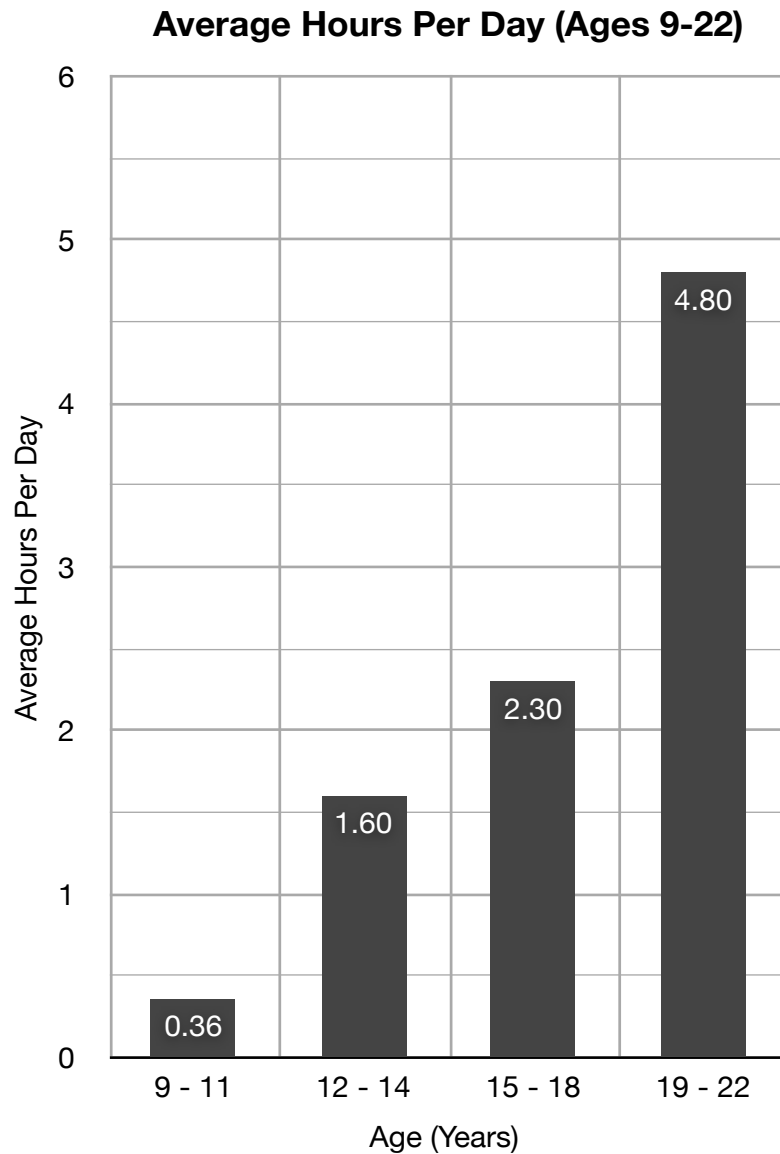


Figure 5: The graph above shows the average practice hours per day of the thirty-six percussionists interviewed between the ages of 9-11.

¹³ K. Anders Ericsson, et al., “The role of deliberate practice in the acquisition of expert performance,” *Psychological Review* 100 No. 3 (1993): 363-406.

While each person gave their best guess as to the average number of hours they practiced per day, it would be unreasonable to assume each percussionist practiced 365 days per year, as a result of vacation, illness, etc. For this reason, it will be assumed that each player practiced six days per week, which equates to 313 total days of practice annually.

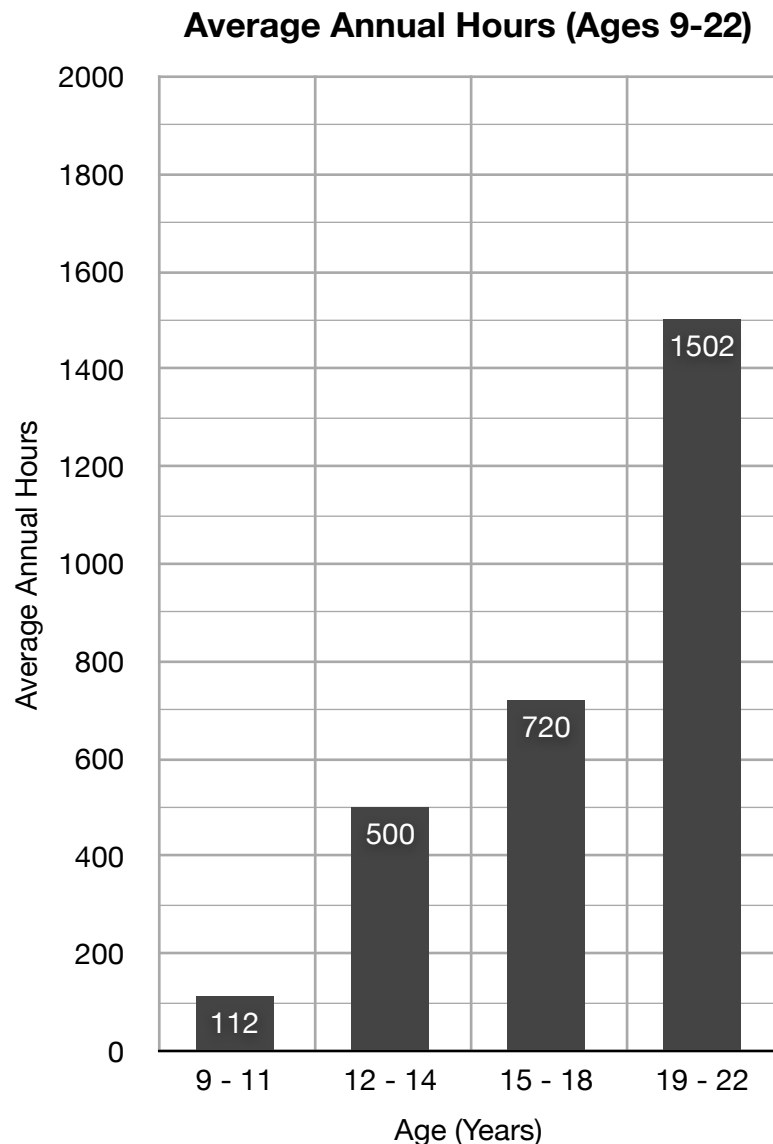


Figure 6: The graph above shows the average practice hours per year of the thirty-six percussionists interviewed between the ages of 9-22, taking into account this assumption.

Based on the annual practice hours, the total accumulated practice up to the age of twenty-two can be graphed, which will show if and when the percussionists reached 10,000 hours.

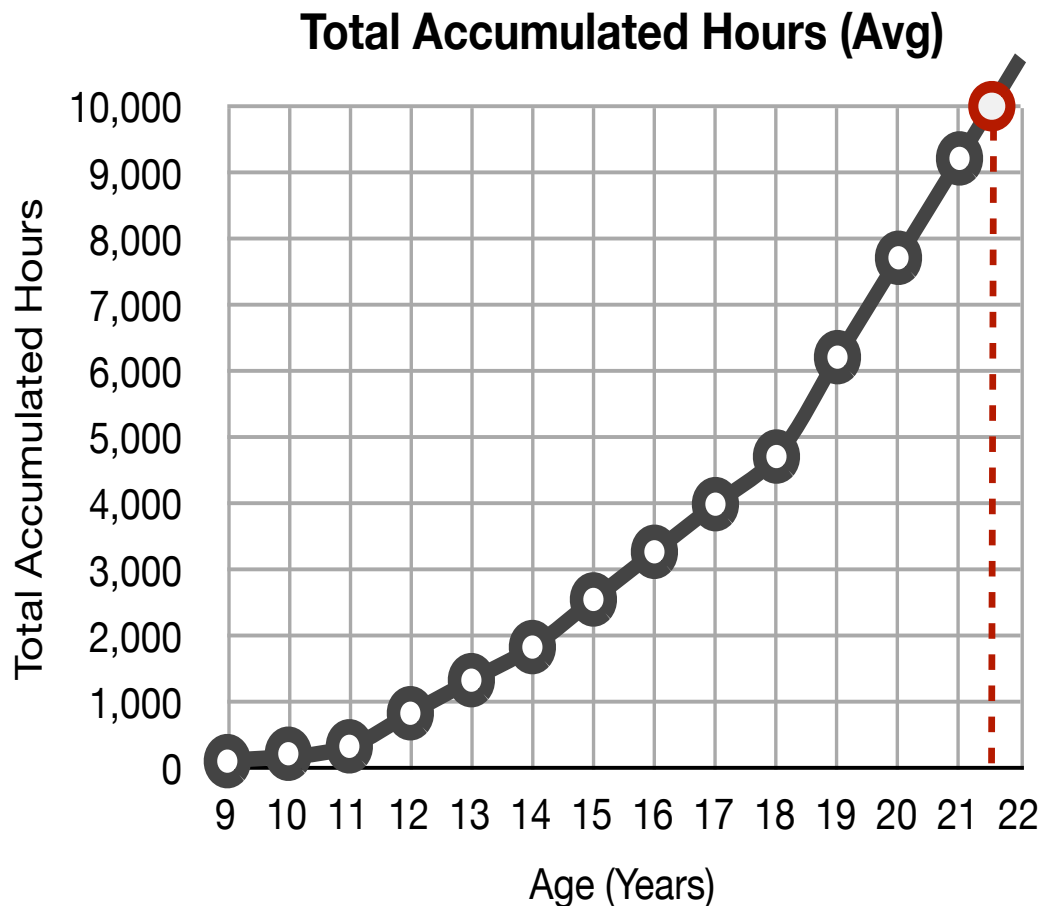


Figure 7: The graph above shows, on average, the total accumulated practice hours of the thirty-six percussionists interviewed between the ages of 9-22.

This graph shows that the percussionists interviewed, on average, achieved 10,000 total hours of practice by the age of 21.5 years old. As expected, this is a little later than the

violinists and pianists in Ericsson's study due to the fact that they started playing their instrument, on average, four years later.

~ Environmental Limitations ~

One very interesting trend with the 10,000-hour milestone is that it typically is achieved around twenty years of age. As a child and young adult, that is an enormous amount of time to dedicate to a single activity. For this reason, Gladwell believes that not everybody is capable of achieving those 10,000 hours. "You have to have parents who would encourage and support you" because it is "all but impossible to reach that number all by yourself."¹⁴

In addition to requiring family support, "most people can reach that number only if they get into some kind of special program . . . where they get some kind of extraordinary opportunity that gives them a chance to put in those hours." This was the case with Mozart as well. In his "earliest years," Mozart received "special preparation" and "unusual opportunities" that encouraged the "acquisition of skills and knowledge"¹⁵ that could then be built upon. In the case of the percussionists interviewed, all thirty-six of them majored in music and many participated in honor youth ensembles, which helped them achieve 10,000 hours.

Many of the percussionists interviewed also attended graduate school to get their master's

¹⁴ Malcolm Gladwell, *Outliers: The Story of Success*, (New York, NY: Little, Brown and Company, 2008), 42.

¹⁵ Michael J.A. Howe, *Genius Explained*, (Cambridge, MA: Cambridge University press, 1999), 61.

degrees, which is an even more specialized program than their undergraduate degrees. This correlation between specialized programs and practice hours held true, and in all instances, the average hours per day increased significantly.

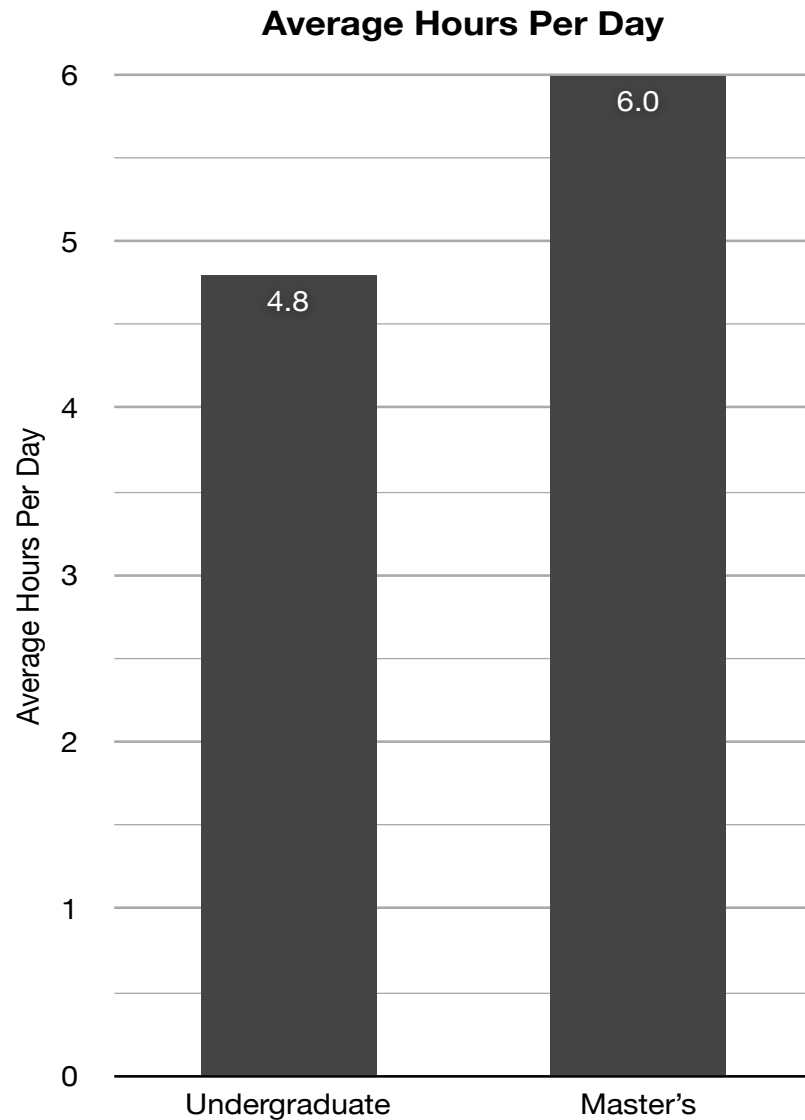


Figure 8: Above is a graph comparing the average practice hours per day of the percussionists interviewed that continued on to do their master's degree. The statistics for the undergraduate degree are shown as a means of comparison.

Sixteen of the thirty-six percussionists interviewed continued on to get their doctoral

degrees, and during this time, the average practice hours dropped back down equal to the average time spent during their undergraduate degree. This was typically attributed to their increased teaching responsibilities, changes in personal lives, and an increased emphasis on research for their dissertation.

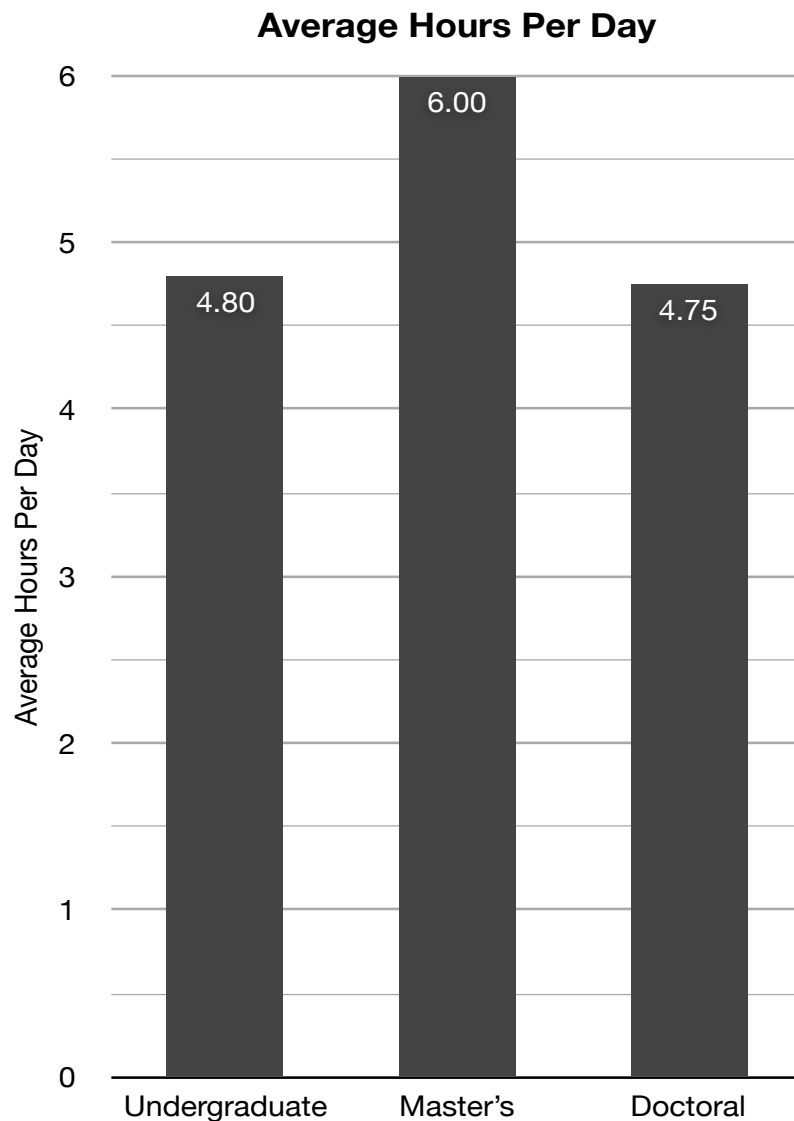


Figure 9: The graph above shows the average practice hours per day of the percussionists interviewed that continued on to a doctorate. The statistics for the undergraduate degrees and master's degrees are shown as a means of comparison.

Once the interviewed percussionists completed their education and started their formal careers, regardless whether they had completed their undergraduate, master's, or doctoral degree, they all experienced a tremendous drop off in practice hours. This is attributed to their increased teaching responsibilities and family obligations, which prevented them from dedicating as much time to practicing. Gladwell believes that once a musician starts working, their progress toward 10,000 hours is halted. In fact, for this reason Gladwell argues that underprivileged students who “ have to hold down a part-time job at a young age . . . to help make ends meet,” will not make it to 10,000 hours because there simply “won’t be time left in the day to practice enough.”¹⁶

~ Conclusion ~

It can be reasonably concluded that if 10,000 hours aren’t achieved before starting a career, it will likely never be reached because the player won’t have sufficient time to practice. This was even supported by the percussionists interviewed who all indicated that once they finished their educations and started their careers, practicing became an activity of maintenance, not improvement. The quantity of time they were able to spend in the practice rooms was only enough to sufficiently prevent them from getting worse. They were no longer getting better at their instrument, simply maintaining the skills they had acquired through college. This can be seen by the immense drop off in practice hours when comparing the average practice hours while in college to current practice hours.

¹⁶ Malcolm Gladwell, *Outliers: The Story of Success*, (New York, NY: Little, Brown and Company, 2008), 42.

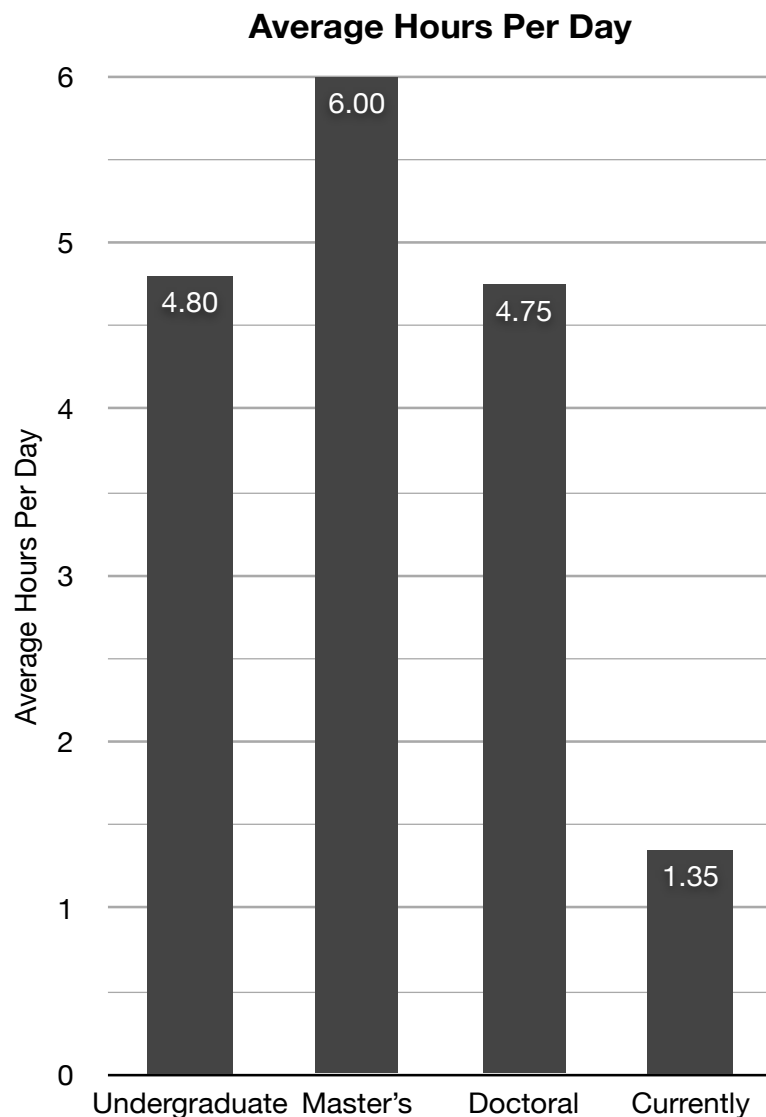


Figure 10: The graph above shows the average practice hours per day that the thirty-six percussionists interviewed currently practice. Statistics for the undergraduate degree, master's degree, and doctoral degree are shown as a means of comparison.

When compared to their pre-career averages, the results are astonishing. To put in perspective the severity of that drop off, the percussionists interviewed currently practice less per day than they did when they were in middle school.

It is a common misconception among musicians that they have their whole lives to get better. The truth is that the player likely reaches their greatest potential when they complete their education. Once careers are underway, most are fortunate to simply avoid a slow decline in their playing skills. College students often take the attitude that ‘I’ll practice it later’ or ‘after I graduate I’ll learn to do that.’ The harsh reality is, they won’t. College is the time to practice and the time to get better. Once that time has passed, it is forever too late.

The irony of this realization is that many of the percussionists interviewed confessed that that they did not discover how to most efficiently practice until later in their careers, when time was truly at a premium. While finally mastering the art of practice is a tremendous accomplishment, the window in which this skill would have proven most beneficial had long expired.

*Practice isn’t the thing you do once you’re good. It’s the thing you do that makes you good.*¹⁷ - Malcolm Gladwell

Copyright © Colin Jeffrey Hill 2013

¹⁷ Malcolm Gladwell, *Outliers: The Story of Success*, (New York, NY: Little, Brown and Company, 2008), 42.

Figure 11: The following table enables the reader to track their practice hours.

Accumulating 10,000 Practice Hours									
Age	Education Level	No. of Yrs.	Practice Hrs. / Day	Total Hours					
9-11	Grade School	3	0.5 1 1.5 2 2.5 3 3.5 4 4.5 5 5.5 6 6.5 7 7.5 8	469 939 1408 1877 2346 2816 3285 3754 4224 4693 5162 5631 6101 6570 7039 7509					
12-14	Middle School	3	0.5 1 1.5 2 2.5 3 3.5 4 4.5 5 5.5 6 6.5 7 7.5 8	469 939 1408 1877 2346 2816 3285 3754 4224 4693 5162 5631 6101 6570 7039 7509					
Sum of Grade School + Middle School									
15-18	High School	4	0.5 1 1.5 2 2.5 3 3.5 4 4.5 5 5.5 6 6.5 7 7.5 8	548 1095 1643 2190 2738 3285 3833 4380 4928 5475 6023 6570 7118 7665 8213 8760					
19-22	College Undergrad	4	0.5 1 1.5 2 2.5 3 3.5 4 4.5 5 5.5 6 6.5 7 7.5 8	548 1095 1643 2190 2738 3285 3833 4380 4928 5475 6023 6570 7118 7665 8213 8760					
Sum of High School + College Undergrad									
Pick one from Total Hours column and record it here									
Pick one from Total Hours column and record it here									
Grand Total Practice Hours from Grade School thru Undergrad									

Notes:

- 1 All numbers above assume 6 practice days per week (not 7).
- 2 Included only 3.5 years (not 4) of College Undergrad years in totals above since the target age for 10,000 hours is 21.5 years.

CHAPTER 3: PLANNING A PRACTICE SESSION

*To do a great and important work, two things are necessary — a definite plan, and not quite enough time.*¹⁸ -Leonard Bernstein

As musicians, our job is to practice. Much like the way a professional athlete must lift weights, perform cardiovascular workouts, and monitor their diet, musicians also have a long list of practice duties they must perform on a daily basis to maintain and improve their musical skills. That ‘to-do’ list is coupled with a persistent shortage of time, making it extremely important to carefully plan and schedule every session. Doing so not only ensures that all required practice elements are addressed, but also prioritizes time according to what is most pertinent to the current goals.

Busy daily schedules usually limit the time available to practice, increasing the importance of maximized efficiency. Deadlines are a constant looming presence and organization is key to ensure those deadlines are met. In music, as in other areas of learning, procrastination compensated by short-term cramming is typically ineffective. When large deadlines are distant in the future, planning becomes even more important to maintain steady progress and guarantee the performance will be prepared on time.

Music is a highly creative and enjoyable activity, and while this should be embraced, the majority of the time spent in the practice room should be much more rigorous and

¹⁸ Lloyd Cory, *Quote Unquote*, (Wheaton, IL: Victor Books, 1977) 373.

disciplined if the player wants to make maximum progress. Even if adequate time is spent in the practice room, success isn't guaranteed. How the time is spent is equally as important since natural human tendencies usually steer them down the wrong path. Instinctually, most are drawn to the easiest and most enjoyable tasks, but unfortunately, in the practice room the opposite mentality must be enforced. While performing, genuine confidence and truly inspired interpretation is only possible after a piece is absolutely mastered. This usually means practicing the things that cause the player the most trouble or discomfort. For most, this takes discipline. For a few, this comes naturally, but that doesn't mean they are exempt from the planning process. For these people planning is still essential because it is very easy to get fixated on a problem and delay progress in other areas.

Every musician can benefit from planning his or her practice sessions and typically, doing so results in a more enjoyable experience because a sense of progress is more readily realized. There are many different ways to plan a practice session and there isn't a single method that can be deemed the 'best.' The multitude of possibilities depends on the learning style and personality of the player as well as the requirements and limitations of the player's practice schedule.

~ Practice Environment ~

The first aspect of planning a practice session requires determining where the practicing is going to take place. Practice spaces are sometimes limited, but when given a choice as

to the location, certain environments are more ideal than others. Michael Udow said his practice environment philosophy was heavily influenced by workshops given by Michael Colgrass.

He (Colgrass) would pass out gold-colored rope that was large enough to make a circle on the floor. Then he'd have the participants step into the circle . . . [and explain that] 'it's your golden sphere and when you step into this world, it's your special world to accomplish your goals.

This idea that the player needs to create their own space in which they can be most productive had a large impact on Udow. “When I go down to my studio, that’s my special world without distractions. It’s a place that I can get lost in. You are almost a child again and can explore and get lost in making music.” Spending time finding an environment in which the player feels most productive and engaged is hugely important. Udow believes that “setting up the principles” of where and how he is going to play music, is “germane”¹⁹ to his approach.

Ben Wahlund also takes special consideration in determining his practice environment, and believes it’s crucial to his productivity and efficiency. He tries to find a location “where interruptions and distractions are minimized.” He advises to “clear clutter [and] turn off your cell phone.” If this space is at home, “family members should be encouraged not to disturb you during practice time.”²⁰ If the practice environment is limited to a more public environment, the time of day when the fewest people are around should be considered. Noa Kageyama, author of *Nine Sources of Frustration in the*

¹⁹ Michael Udow, phone interview, 16 Nov. 2012.

²⁰ Ben Wahlund, email interview, 31 Oct. 2012.

Practice Room, also believes in a distraction-free practice environment. “Make your practice area a place where your brain is not tempted by irrelevant stimuli.”²¹

In Barry Green’s book, *The Mastery of Music*, he states that practicing in “isolated and sometimes barren environments” allows the player to “focus on the music, tune out distractions, and connect both with their own soul and with the spirit of their music.”²² A good practice environment doesn’t only depend on the location or time, but depends on the player’s state of mind. “Take care of things outside of the practice room so that they don’t cloud your judgment in the practice room,”²³ advised Wahlund. While practicing, it is imperative that the player is “hyper-observant . . . listening carefully and watching carefully will reveal new, more helpful goals.”²³ This guides the practice session in the most efficient direction. If the player does not have a clear mind and is thinking about other issues outside of the practice room, they are likely to be unsuccessful. In addition, Kageyama advises that “If you are too tired to concentrate and practice effectively, don’t [practice] . . . Sloppy, careless, mindless, mediocre practice will lead to sloppy, careless, mediocre results and only creates more work for yourself in the future when you try to erase the bad habits you have created.”²⁴

Joakim Anterot has found that the best way to clear his mind of issues outside of the practice room, is to do a “mantra.” Taking the time to clear one’s mind “makes you feel

²¹ Noa Kageyama, “Nine Sources of Frustration in the Practice Room,” 23 Sept. 2012, *The Bullet Proof Musician*, 26 May 2013.

²² Barry Green, *The Mastery of Music: Ten Pathways to True Artistry*, (New York, NY: Broadway Books, 2003), 169.

²³ Ben Wahlund, email interview, 31 Oct. 2012.

²⁴ Noa Kageyama, “Nine Sources of Frustration in the Practice Room,” 23 Sept. 2012, *The Bullet Proof Musician*, 26 May 2013.

like you are a percussionist” and enables “you [to] feel good . . . Even if bad or sad things happen in the day,” time spent practicing with a clear and focused mind can make for “a good day.”²⁵

Blake Tyson finds that using a metronome during his practice session keeps his mind focused and clear of other thoughts. “I find the metronome gives me some kind of focus that I can’t achieve on my own,” said Tyson. “There are so many things that run through your brain, but the metronome for some reason is a calming influence that focuses me in.”²⁶

Creating an ideal of state of mind in the practice room also requires the player to have a positive attitude. “Don’t beat yourself up. It is tempting to do, but it’s useless to spend energy yelling at yourself. *Always* see to it that your job as a musician is to give rise to the joy of making music,”²⁷ said Wahlund.

When these requirements are all met and the practice environment is ideal, Matthew Duvall finds that he slips into a new “mental space.”

There is a lot of information out there about this concept of flow. It is this educational phenomenon that educators have observed and psychiatrists and neuroscientists have studied. It is a documented phenomenon, particular seen in children, when they become so engaged in activity that they truly lose their perception of everything going on around them and you really can’t interrupt them. You don’t have to get them to do this and they can’t help themselves from doing it.

²⁵ Joakim Anterot, personal interview, 28 Oct. 2011.

²⁶ Blake Tyson, personal interview, 3 Nov. 2012.

²⁷ Ben Wahlund, email interview, 31 Oct. 2012.

Duvall explained that during his undergraduate and masters degrees he commonly fell into this mental state without “even really trying.” As he has gotten older, he has found it harder to trigger this state of mind because of the constant distractions of daily life, but on occasion, he does return to this extremely focused and almost trance like mentality. This is when Duvall feels he is able to reach maximum productivity “and the hours just disappear.”²⁸

~ Planning Methods ~

Mapped Out Schedule

Given the busy schedules most musicians face with their career and family, it is important to establish routines. The world works on a system of schedules and predicting when there will be time to practice is usually feasible. Although daily schedules are always subject to change, establishing a standard weekly practice schedule will help maintain consistency and will promote other events on the calendar to work around the player’s practice schedule versus the practice schedule yielding to everything else. This also ensures that the player gets practice time every day. Even if unforeseen conflicts interfere with a practice session, typically all is not lost, and at least a portion of the scheduled time can be utilized. Ben Wahlund believes that “Twenty minutes a day every day is much better than 1 hour a day but only twice a week.”²⁹ Revisiting material on a daily basis promotes better retention and progress.

²⁸ Matthew Duvall, personal interview, 1 Mar. 2013.

²⁹ Ben Wahlund, email interview, 31 Oct. 2012.

Michael Udow agrees that creating a weekly practice schedule is the best way to guarantee consistent practice time. If players don't make a schedule, when "push comes to shove, and they are feeling pressed for time, they might eliminate practice sessions because they're running out of time in their day." Given that practicing is the "major objective incurred" with regards to a musician's "career aspirations," placing priorities on other issues should be discouraged and avoided. For this reason, a weekly practice schedule is imperative to the success of musicians. When creating this schedule, Udow believes it is important to take into account what time of day the player is most productive. "I think it is important for each person to understand when they work the fastest." Everybody has a time of day in which they find it easiest to stay "mentally engaged" and in the "zone." "For me, that time was in the morning." Practicing earlier in the day allows him to fully focus "before any distractions come up."³⁰

Kageyama agrees with Udow and states, "you'll find that there are certain periods during the day when you are naturally more alert, attentive, and able to concentrate . . . Don't waste these periods of time on tasks that don't require your full attention. Treat these portions of the day as being more valuable, and use these for tasks that are higher priorities."³¹

Paul Rennick organizes his practice sessions using a series of self-imposed deadlines.

"Much like everything in this world, it's deadline related. Just like your dissertation, or

³⁰ Michael Udow, phone interview, 16 Nov. 2012.

³¹ Noa Kageyama, "Nine Sources of Frustration in the Practice Room," 23 Sept. 2012, *The Bullet Proof Musician*, 26 May 2013.

just like a performance or recital, it's a deadline.”³² Creating imaginary deadlines can be an effective motivational tool, constantly encouraging progress. More commonly, practice deadlines are externally created. When Brian Zator was studying with Keiko Abe in Japan for 8 months, he was practicing “five or six hours a day” to learn “a piece a week”³³ for his lessons with Abe.

Other times, these external deadlines are set by the player themselves. Brian Mason warns that scheduling a recital or committing to a gig requires the player to “have good self-awareness.” To effectively “manage and juggle”³⁴ practice with a busy schedule, there needs to be an understanding of what is possible and practical within a given time frame. According to Gerald Klickstein’s book, *The Musician’s Way*, “an effective schedule enables you to achieve your musical goals without becoming exhausted.”³⁵

John Tafoya has discovered that he works best when he “starts early,” well in advance of his performance date.

*I remember practicing in December for a concert I was doing in March. That way I can really live with the piece for a while. It probably was a little overkill but there is a level of comfort every time you go through it. So I like to do that. I like to anti-procrastinate a lot. When familiar, it's amazing how fast you can get up to performance tempo.*³⁶

³² Paul Rennick, personal interview, 12 Nov. 2011.

³³ Brian Zator, personal interview, 2 Nov. 2012.

³⁴ Brian Mason, personal interview, 10 Mar. 2013.

³⁵ Gerald Klickstein, *The Musician's Way: A Guide to Practice, Performance, and Wellness*, (New York, NY: Oxford University Press, 2009), 11.

³⁶ John Tafoya, personal interview, 13 Nov. 2010.

As previously mentioned, when learning a piece that has a distant deadline, it is very important to plan a schedule. Otherwise, it is hard to gauge and maintain progress that guarantees the piece will be prepared in time. When Omar Carmenates first receives a piece, he “plan(s) it out from day one.”³⁷ When doing this, the first question that must be asked is “how long do you have?”³⁸ said Joakim Anterot. Once the exact deadline is determined, Jason Baker creates “a timeline of what [he] want(s) learned and when.”³⁹ To create an accurate timeline that is practical and achievable, Anterot always asks himself “What is the reason for practicing [and learning this piece?]”³⁸

The type of piece and its performance context has a large impact on the level at which it needs to be prepared and how long it should be worked on. If it is a world premiere programed for a solo concert, it will need much more preparation time than an orchestral ensemble part. Jason Baker also points out that it is important “to look through a piece first and see how long it’s going to take.”³⁹ In addition to the length, pieces pose various challenges in terms of technique, musicality, and logistics that may be initially overlooked if not examined closely.

Once all of these factors are determined and a time frame has been determined for learning the piece, Omar Carmenates finds it helpful to form “sub goals.” This divides the piece into more manageable chunks and provides day-to-day goals. “So from the day I started learning it to the day I performed it, I had a program,”³⁷ said Carmenates.

³⁷ Omar Carmenates, personal interview, 12 Nov. 2011.

³⁸ Joakim Anterot, personal interview, 28 Oct. 2011.

³⁹ Jason Baker, personal interview, 11 Nov. 2011.

Without breaking it up into sub goals, it can be difficult to stay on track. The end deadline provides plenty of motivation, but when that deadline is months away, it is easy to rationalize other priorities and fall behind schedule. For this reason, Paul Rennick creates “deadlines without there really being a deadline.” For these self-imposed deadlines to be effective, they must be treated with the same importance as the final deadline. Rennick finds that if he can “treat it that way . . . it keeps [me] on task.”⁴⁰

As Brian Mason mentioned previously, the player must “have a good self-awareness”⁴¹ so that they can determine how much time is needed at the end to prepare for the performance. Jason Baker said this is one of the largest considerations when he is constructing his timeline. “I make sure I have a good amount of time left to get comfortable with the whole process.”⁴²

The amount of time that should be allotted depends on the individual. Andy Harnsberger looks at it this way:

*If I am six weeks out from the performance, I need to be at like 60% tempo. The next week I need to be at 70% tempo. I gauge it so that I’ve got about a two-week buffer zone. So three weeks before the performance I’ve got everything up to tempo and it’s perfect at 90%. By the next week it’s perfect at 100%, and now I have two weeks to get used to the performance of it.*⁴³

⁴⁰ Paul Rennick, personal interview, 12 Nov. 2011.

⁴¹ Brian Mason, personal interview, 10 Mar. 2013.

⁴² Jason Baker, personal interview, 11 Nov. 2011.

⁴³ Andy Harnsberger, personal interview, 2 Nov. 2012.

Planning out a piece long term obviously takes a lot of detail and information. If the player is preparing for a recital and there are five or six pieces that must be learned, these plans get complicated quickly. For this reason, Julie Licata uses calendars with “grids and matrices to [show] how [she’s] going to run things . . . I can’t practice every piece every day and I can’t even practice all of one piece every day,”⁴⁴ said Licata, so her system facilitates the organized rotation of pieces.

Since it is impossible to accurately predict one’s precise progress, it is important to maintain an adaptable schedule. Getting consistently behind can cause major problems with a steadfast deadline, so Michael Burritt keeps “track of these arches” of preparation so that if he gets too far behind schedule, he can “reassess how you are going to accomplish your goals.” The way to avoid falling behind schedule is “to have an idea of how you are going to organize your week,” said Burritt. “On Monday I’m going to do this and on Tuesday I’m going to do that. Everyday I’m going to work on this but every other day I am going to work on that.” This takes time to systemize, so “it’s good to write your plan out.”⁴⁵

Julie Licata’s system of grids and matrices is extremely useful for keeping all of this information organized. She is very detailed in her schedule and not only determines what pieces she is practicing, but plans it down to specific sections. “I’m going to work A-D on Monday. I’m going to work D-F on Tuesday. I’m going to work F-I on Wednesday and then make a three day rotation of those three.” If that wasn’t detailed enough, she

⁴⁴ Julie Licata, personal interview, 12 Nov. 2011.

⁴⁵ Michael Burritt, personal interview, 20 Jan. 2013.

also likes to work on the “hard technical spots every single day” and marks those in her calendar as well. “I write this on my chart too, A-D on Monday and then run technical spot on page one and technical spot on page two.”⁴⁶

This type of detailed planning also works very well when preparing for an orchestral audition with a large excerpt list. Eric Willie uses this method and divides the days up by instrument types. “Monday was soft snare drum, bass drum, and glockenspiel. The next day was mallets, snare drum, triangle, tambourine, and crash cymbals.” He refers to this scheduling method as “micromanaging” and finds that mapping it out gives you “so much more time for each.” When trying to get through a lot of material, Willie uses a Zen approach. “Only do something for a fixed amount of time and then leave it. If you didn’t make your goal, then you know what to add for the next day. I think that this way of doing things is the most beneficial.”⁴⁷

When making elaborate schedules, especially when dealing with large periods of time, it is important to allow for flexibility. Things may take longer than anticipated and it is OK to adjust the schedule accordingly. By the same token, if a task is accomplished ahead of schedule, move to the next thing so these adjustments are balanced out.

Elaborate and highly detailed schedules for extended periods of time are not for everybody. For some people, the thought of utilizing such detailed methods causes anxiety. Many people just prefer to plan on a daily basis, and not worry so much about

⁴⁶ Julie Licata, personal interview, 12 Nov. 2011.

⁴⁷ Eric Willie, personal interview, 11 Nov. 2011.

tomorrow, next week, or next month. Although this short-term only planning has risks, if this method is done correctly, it will still result in long and “detailed lists,”⁴⁸ says Barry Green in his book *The Inner Game of Music*.

“You need to have an idea of how you are going to organize . . . your day,” said Michael Burritt. “If you just walk into it saying, ‘Ok, I’m going to practice, here we go,’ you can get overwhelmed with how much there is to do. Instead, say ‘today I am going to do this and here are my goals.’ This helps take the stress out of it.”⁴⁹

Ben Wahlund agrees with Burritt and thinks that the best way to relieve stress and be productive is to “be methodical in your work.”⁵⁰ Having a method creates routine, and routines create order, giving the player a plan of attack. This can be calming when tackling a large list of to-do’s and the player doesn’t know where to start. Matthew Duvall always uses the same methodical process when practicing a new piece.

Once I’ve broken things down into micro sections, phrases, or cells, then my practice is pretty systematic . . . No matter how easy it is I’ll do it ten times and I keep track with hash marks. That ten times thing is not just to be redundant for the sake of being redundant, but I found when I practice that way, it eliminates the, “What should I do next?” question and it eliminates getting distracted or wandering between things without really having focused on something.

Duvall is very consistent about keeping track with “hash marks on a page.” He does it all the time and believes this focus technique is “a big part” of the process. “[I] write

⁴⁸ Barry Green, and W. Timothy Gallwey, *The Inner Game of Music*, (Garden City, NY: Anchor Press/Doubleday, 1986), 75.

⁴⁹ Michael Burritt, personal interview, 20 Jan. 2013.

⁵⁰ Ben Wahlund, email interview, 31 Oct. 2012.

everything down . . . on a piece of scratch pad [so that] I know I'm spending enough time on material and not wandering through my practice session."⁵¹ He does this faithfully and has even kept all his practice journals from college.

Another good planning technique is to make a detailed schedule of the upcoming session. "Take five minutes before you start and decide on what you are going to work on for the day. Look at the time you have to practice, and divide it up based on specific time increments,"⁵² said Michael Burritt.

How this time is divided is up depends on what needs to be worked on. In Ben Wahlund's case, he uses a standard formula. Regardless how long Wahlund has to practice, he divides his session into five categories: warm-up, improvise/experiment, technique, goal material, and warm down. Below is a table showing how he would plan thirty-minute practice session.

⁵¹ Matthew Duvall, personal interview, 1 Mar. 2013.

⁵² Michael Burritt, personal interview, 20 Jan. 2013.

2.5 Minutes	Warm Up Routine!
5 Minutes	Improvise/Experiment Nice to ask “What if?”
10 Minutes	Technique Review Old, Reinforce Current, Explore New
10 Minutes	Goal Material In small chunks “Rule of 9/10”
2.5 Minutes	Warm Down Blow Off Steam/Explore

Figure 12: Ben Wahlund’s thirty-minute practice session breakdown.⁵³

Obviously most practice sessions exceed thirty minutes, but the proportions and categories would remain the same for a longer practice periods.

Joakim Anterot also strongly believes in making a detailed schedule of his practice session but uniquely includes scheduled breaks. The mind can only maintain focus for so long and at a certain point, productivity starts to decline. For this reason, it is important “to know when to take your breaks,”⁵⁴ said Anterot.

Organizing a practice session using a mapped out schedule is extremely effective. It is a great way to ensure that the player will be prepared for upcoming deadlines and shows

⁵³ Ben Wahlund, email interview, 31 Oct. 2012.

⁵⁴ Joakim Anterot, personal interview, 28 Oct. 2011.

progress towards their final goal. In addition, writing this schedule out on paper enforces productivity since every minute of the practice session is given a specific assignment. This also has a powerful affect on the player's confidence because they are able to see their accomplishments and hard work documented.

Timer

Long to-do lists can overwhelm some people. The idea of planning an entire practice session from beginning to end is daunting, not to mention trying to plan out the entire week or an entire month. For people that prefer not to think that far in advance, the timer method might be the best way to plan their practice session.

This method was only used by one of the thirty-six percussionists interviewed, but this in no way diminishes its usefulness. Christopher Deane's method of using a kitchen timer to plan a practice session is based on a simple premise. Only plan the next ten minutes and don't worry about what is going to be done after that. "Pick a small section and put the timer on." It's as simple as that. When the time expires ten minutes later, choose another practice spot and repeat the process. This method encourages short but intense bursts of focus on a very specific section of music. The section of music chosen should be relatively short and the player is limited to only that section of music for the entire ten minutes, keeping them "honest,"⁵⁵ said Deane.

⁵⁵ Christopher Deane, personal interview, 12 Nov. 2010.

“Personal and musical goals [can] become so overwhelming that they inhibit our ability to perform or concentrate,”⁵⁶ said Barry Green in his book, *The Mastery of Music*. For this reason, practicing with a short-term mentality eliminates anxiety caused by long to-do lists and allows the player to focus purely on what they are playing. When using this method, the allotted time frames should be kept to fifteen minutes or less. Once fifteen minutes is exceeded, the urgency of the ticking timer loses its affect.

This method promotes diligent work on a specific problem spot and eliminates the all too common scenario of glossing through various sections of music without really practicing anything. This method of planning a practice session is successful due to its simplicity and can work well for people with short or fragmented practice times throughout the day.

Priority List

“You should practice what you are not good at,” said John Lane. This summarizes the next method for planning a practice session, priority lists. Priority lists are very simple to construct. They are a list of all of the sections of music that would cause the performer anxiety if the concert was tomorrow. Planning a practice session using the priority list method enforces practicing the weakest material. This is usually not enjoyable and takes tremendous discipline. “You can’t worry about what Joe Smith is going to think standing outside when you are messing this up because you are doing the right things,” said John Lane. “That is where your practicing should be and you can’t be concerned about what

⁵⁶ Barry Green, *The Mastery of Music: Ten Pathways to True Artistry*, (New York, NY: Broadway Books, 2003), 103.

you sound like in the practice room . . . sometimes have to put your pride in your pocket and work on the things you are not good at.” “If you just practice the things you are good at, you are going to continue to get better on those things, but you are also going to have big gaping holes in your abilities.” Practicing the worst spots and the things that are difficult “is the only way you are going to grow as a musician.”⁵⁷

When using this method, the player must first find all of their worst spots. John Parks uses priority lists to plan his practice session and labels all of these spots using “Post-it Notes of different colors . . . Greens are ‘I don’t need to practice this, I can do it.’ Yellows are, ‘I need to touch it a little and then it will be OK’, and Reds are, ‘I need to spend a lot of work there.’”⁵⁸

This idea is not unique to Parks. He was first introduced to it while reading Don Greene’s book, *Audition Success*. In Greene’s book, the labels are one, two, and three instead of green, yellow, and red, but the methodology is the same. “Ones are ‘Very Confident’, twos are ‘In Progress,’ and threes are ‘Challenging,’”⁵⁹ Greene’s idea is to prioritize one’s practice sessions around the reds / 3’s until they become yellows / 2’s. “I don’t practice the things I’m already good at, [I] just play the challenging ones,”⁶⁰ said Brian, a thirty five year old horn player who took part in Greene’s study. This method gives the player a defined structure for practicing their problem spots.

⁵⁷ John Lane, personal interview, 12 Nov. 2011.

⁵⁸ John Parks, personal interview, 12 Nov. 2011.

⁵⁹ Don Greene, *Audition Success: An Olympic Sports Psychologist Teaches Performing Artists How to Win*, (New York, NY: Routledge, 2001) 50.

⁶⁰ Don Greene, *Audition Success: An Olympic Sports Psychologist Teaches Performing Artists How to Win*, (New York, NY: Routledge, 2001), 92.

Andy Harnsberger also uses this method for determining his priority spots and finds it especially useful because the Post-it Notes help monitor his progress. “Over a couple of weeks, the goal is to get the red sections up to yellow and then move all the yellows up to green.”⁶¹

Structuring each practice session around the concept of only practicing the worst spots takes tremendous discipline. As Lane pointed out, the player must put aside all expectations of always sounding good in the practice room because when practicing the most difficult spots, that isn’t attainable. However, this method does guarantee constant improvement and a clear direction to go in the practice room.

Goal-oriented

Some of the percussionists interviewed prefer to plan their practice session around goals they want to achieve rather than using a mapped out schedule. This method places more emphasis on completing the task at hand than meeting a specific time requirement. The major advantage to this method is that the player is rewarded for accomplishing goals. Instead of practicing a certain section for a designated amount of time, they only practice that section until they meet whatever goal they had set for the day.

This type of planning is incentive based and places importance on doing it correctly. In theory, somebody who adheres to a mapped out schedule, could practice their assigned

⁶¹ Andy Harnsberger, personal interview, 2 Nov. 2012.

section for the designated amount time, say twenty minutes, but not make any improvement. This is unlikely, but possible. If instead, that same person was using a goal-oriented planning method, after those same twenty minutes of practicing, if no progress was made, they would be no closer to completion than when they started. Incentive creates tremendous motivation, and for some people, is the most effective method for planning a practice session.

While Julie Licata was referenced repeatedly in the mapped out schedule section, most of the detailed schedules she creates are not based on times of the day, but rather chunks of material at certain tempos. Although her schedule is incredibly detailed and planned out, there is an understood flexibility as to when she can move on to the next schedule item.

*I always have a plan but allow myself flexibility. I accomplished that so I can move on to something else. If I didn't accomplish it, I have to do it over and over again until I do. For this reason, I have to allow myself the flexibility in the schedule . . . I don't have time blocks, generally it's goal-oriented.*⁶²

The other advantage to this method is that everything that is being practiced has a goal.

For this reason, Don Greene, in his book *Performance Success*, recommends “that each goal makes sense as a part of a step-by-step path that logically leads you from wherever you are to reaching your [final goal].”⁶³ This results in a clear understanding of what should be practiced.

⁶² Julie Licata, personal interview, 12 Nov. 2011.

⁶³ Don Greene, *Performance Success: Performing Your Best Under Pressure*, (New York, NY: Broude, 1978), 28.

*Two or three weeks before the performance I'm at point where I know where my problem spots are. There are always four or five things that need technical runs or whatever. I've got seven days during the week and I'm practicing three hours a day on marimba, so I divide that evenly.*⁶²

- Julie Licata

Since all of her practice spots are assigned attainable goals, her scheduled material is constantly changing. As she gets closer to the concert, she might be revising her schedule “almost every week”⁶² so that it corresponds to the progress she is making.

When using this method to plan practice sessions, it is important to choose goals that can be accomplished in “a small amount of time,”⁶⁴ explained Michael Udow. The idea is based on the premise that once the goal is accomplished, the player is done with that portion of the practice session. If the goals are unrealistic within the scope of the available time, there will be little or no apparent progress made. Wahlund advises to break larger tasks “into easily accomplished small bits”⁶⁵ and Michael Burritt always tries to set goals “depending on the amount of time”⁶⁶ he has to practice.

In Barry Green’s book, *The Inner Game of Music*, he states, “the motivation for continual change can only come from experiencing the improvement in your music that occurs when you set realistic goals and trust the musician within you.”⁶⁷

⁶⁴ Michael Udow, phone interview, 16 Nov. 2012.

⁶⁵ Ben Wahlund, email interview, 31 Oct. 2012.

⁶⁶ Michael Burritt, personal interview, 20 Jan. 2013.

⁶⁷ Barry Green, and W. Timothy Gallwey, *The Inner Game of Music*, (Garden City, NY: Anchor Press/Doubleday, 1986), 112.

The goal-oriented method of planning a practice session can be extremely motivating and give players extra incentive to focus on the matter at hand. However, this method can't be used in all situations. If the player has small fragmented blocks of time throughout the day to practice, this method may not be very successful because the sessions may expire before their goals can be completed. This method works best when there is an excess of practice time with little restrictions on when the session must conclude.

Consequence-oriented

Another way to plan a practice session is using the consequence-oriented method. This method, like the goal-oriented method, rewards the player for their hard work. The premise behind this method places importance on quality, not quantity. When practicing, it is easy to mentally check out and do careless run-throughs. Some people treat practicing like a job. They check in, mark the time sheet, and 'put in their hours.' This type of practice is not as productive, since the focus is usually on what time they can leave rather than actually getting better. Similar to the goal-oriented method of planning a practice session, this method does not use time as the primary measurement. Instead, practice time is determined by how many correct repetitions the player can do. There are many variations of this method, but all emphasize perfection.

The first variation of this method focuses on consistent accuracy over a designated period of time. This can be done with any exercise, scale, or excerpt capable of being looped continuously. The goal is to play for a designated amount of time with no mistakes. Once

this is accomplished the player is free to move on to another aspect of their practice session. Brian Nozny learned this method while studying with Andy Harnsberger. Harnsberger assigned him exercises from George Hamilton Green's *Instruction Course for Xylophone* that read, "play for three minutes straight without stopping, at a steady tempo, with no wrong notes," said Nozny.

I started the clock and started playing with the metronome. Everything was going fine and then all of a sudden, at about two minutes and forty seconds, I started to get nervous. Am I going to make it? Am I going to make it? And sure enough, I missed one note right at the very end.

This meant he had to do it all over again. This style of practice is extremely beneficial because it "enforces perfection,"⁶⁸ said Nozny.

Eric Willie and William Moersch use a different variation of the consequence-oriented method. Willie refers to it as "the penny trick." This variation uses coins to count correct repetitions, and the player is not done until they have played the passage correctly as many times as there are coins. "Reach in your pocket, pull out all of your pocket change, and put it on one side [of the music stand]. Each time you play it correctly, move one coin over to the other side. When all the coins are gone from one side, you can move on,"⁶⁹ explained Moersch. Eric Willie adds a condition to this method to make it even more difficult. When the passage is played worse than usual, the "pennies come back"⁷⁰ to the original pile. This method is especially useful when working on excerpts or other styles of music that require incredible note accuracy.

⁶⁸ Brian Nozny, personal interview, 30 May 2012.

⁶⁹ William Moersch, personal interview, 12 Nov. 2010.

⁷⁰ Eric Willie, personal interview, 11 Nov. 2011.

James Campbell also uses this method but his variation does not include pennies. He takes a short passage of music and loops it under tempo until it's played "three to five times correctly." After this is accomplished, he increases the tempo and repeats the process. "If I play it twice correctly and then make an error, I have to go back to three again,"⁷¹ explained Campbell.

With all of these methods, the player can make the rules as strict or as forgiving as they desire. There can be negative consequences for every incorrect repetition or the player can require that all the correct repetitions happen consecutively. Regardless of how the method is structured, the concept remains the same. The player is rewarded for correct repetitions and penalized for incorrect repetitions and they are not done practicing until they have completed the designated requirements. This creates a sense of competitiveness with one's self and according to Barry Green's book, *The Mastery of Music*, "competition can inspire hard work and great performances . . . [and] works best when it serves as an incentive for learning, performance, and concentration."⁷²

Planning a practice session using the consequence-oriented method can be extremely powerful because it best mimics the pressures of a performance. The pressure felt during Nozzy's last twenty seconds or Willie's last penny, almost perfectly mimics the pressure of a performance situation. This urgency and emphasis on doing it correctly is often neglected in the practice room, which inadequately prepares the player for performances.

⁷¹ James Campbell, personal interview, 25 Mar. 2013.

⁷² Barry Green, *The Mastery of Music: Ten Pathways to True Artistry*, (New York, NY: Broadway Books, 2003), 73.

When using this method, the player always ends the practice session on a high note because they accomplished their goal. Michael Udow believes that it is extremely important to end a practice session “on a positive note . . . When I’m leaving the practice room on a positive note, I’m feeling good about how the session wound up. As a result, the next time I go back into the practice room I will be excited to be there.”⁷³

~ Conclusion ~

With busy schedules and never ending deadlines to meet, it is crucial to use practice time to its greatest potential. As chapter three discussed, practice hours towards the achievement of mastery are limited and should not be wasted. Careful planning of each practice session is that best way to ensure that maximum efficiency is reached in each and every practice period. While there are many different ways of doing this, and the player’s learning style and practice schedule heavily influences which method or methods are best for each individual, methods that enforce progress and accountability are generally most effective. Regardless which methods are chosen, the player must dedicate time and thought to how they are going to utilize their practice session. In doing this, the player’s practice session will result in maximum productivity and a greater sense of accomplishment.

⁷³ Michael Udow, phone interview, 16 Nov. 2012.

Figure 13: Survey - Planning A Practice Session

A. Practice Environment	If yes, try method...
Do people commonly interrupt your practice sessions?	A1, A2
Are you routinely tired or absent minded while practicing?	A2
Do you find yourself thinking about non-related issues while practicing?	A3
Do you commonly feel unproductive during practice sessions?	A2, A3
B. Mapped Out Schedule	If yes, try method...
Is it hard for you to find time to practice on a daily basis?	B1, B5
Does your designated practice time often get replaced by more pressing issues?	B1
Do you commonly get behind in your preparation or feel unprepared to perform?	B2, B3, B4
Would you describe yourself as a very organized person?	B1, B3, B5
Do you have a hard time getting through all your practice material?	B5, B6
Do you neglect practicing certain instruments for long periods of time?	B6
Do you have problems staying on task while practicing?	B1, B4, B5
Do you work best when working towards a specific goal?	B2, B4
C. Short Term Planning	If yes, try method...
Are you a very methodical person?	C1
Does your schedule change on a weekly or daily basis?	C2
Are you a detail-oriented person?	C1
Do long to-do lists overwhelm you?	C3
Do you have a hard time staying focused?	C2, C3
Do you typically rely on muscle memory when performing?	C1
Do your practice sessions lack structure?	C1, C2, C3
D. Priority List	If yes, try method...
Do you commonly fear specific spots during performances?	D1, D2
Does your improvement plateau as you get closer to the performance?	D2
Do your practice sessions resort to primarily run-throughs as the performance draws closer?	D2
Do you sometimes peak early?	D1
E. Goals-Oriented	If yes, try method...
Do you commonly get bored in the practice room?	E2
Do you have large blocks of time to practice?	E1
Are you motivated most when trying to accomplish a goal?	E2
Are you easily discouraged in the practice room?	E2
F. Consequence-Oriented	If yes, try method...
Do you find yourself doing mindless repetitions?	F2, F3
Do you struggle with mental focus while performing?	F1
Do you typically under perform when it counts the most?	F2, F3
Do you commonly make silly mistakes during performances?	F3
Are you a competitive person?	F1, F2
Do you stop and start a lot when you get nervous?	F2, F3

Figure 14: Outline - Planning A Practice Session

Method	Pages
A. Practice Environment 1. Location 2. Time of Day 3. Eliminate Distractions	35-39
B. Mapped Out Schedule 1. Weekly Practice Schedule 2. Self-Imposed Deadlines 3. Day One to the Performance 4. Sub-Goals 5. Grid and Matrices 6. Material/Instrument Oriented	39-45
C. Short-Term Planning 1. Ten Repetitions 2. Detailed Schedule of Each Session 3. Timer	46-49
D. Priority List 1. Worst Spots 2. Post-it Notes	50-52
E. Goal-Oriented 1. Flexible Goal Schedule 2. Attainable Goal-Setting	52-55
F. Consequence-Oriented 1. Timed Accuracy 2. Penny Trick 3. Correct Repetitions	55-58

CHAPTER 4: WARMING UP

~ Reasons for Warming Up ~

What is the best way to warm-up and is it really necessary? The term ‘warm-up’ can encompass a wide variety of activities and serve a multitude of purposes. Regardless how individuals choose to organize their practice sessions, the warm-up always marks its beginning. Whether preparing for a major performance or a first read of a new piece, the warm-up should be very carefully considered and used most efficiently.

Warm-up the Body

William Moersch believes that warming up is crucial to avoiding injury. “I think the worst thing that we could possibly do is just walk up to the instrument and start playing without any kind of preparation.”¹ “The muscles wouldn’t be ready for that amount of movement. You can hurt yourself pretty badly if you aren’t properly warmed up,”² said Paula Robison in *The Mastery of Music*, by Barry Green.

When he was younger in his career, Moersch rarely warmed up. While this didn’t cause any problems for a number of years, the absence of a warm-up routine eventually led to

¹ William Moersch, personal interview, 12 Nov. 2010.

² Barry Green, *The Mastery of Music: Ten Pathways to True Artistry*, (New York, NY: Broadway Books, 2003), 78.

“a very serious tendonitis injury,” which kept him out of commission for a year.” It happened “in the 80’s . . . when I was about to premiere a new version of a Steve Reich piece,”³ explained Moersch. He is convinced that its root cause was his failure to properly warm-up.

Christopher Deane has also dealt with injury and believes that warming up is essential to keeping his body healthy. Deane’s injury was less severe than Moersch’s, having only been out “for a month and a half,” but it may well have been avoided if he had warmed up on a regular basis. Now, Deane always warms up and believes the key to an effective warm-up is “slow and continuous motion without stopping.”⁴

Warm-up the Brain

Six of the thirty-six percussionists interviewed mentioned their belief that warming up is not just for the body, but is also for the brain. For instance, Anders Holdar said, “I think it is important to warm-up your mind.”⁵

For most people, their days do not typically begin with practice. Instead, practice usually takes place during a break or at the end of a long and busy workday. For this reason, Michael Burritt uses warming up to mentally “transition from whatever [he] was doing prior to practicing.”⁶

³ William Moersch, personal interview, 12 Nov. 2010.

⁴ Christopher Deane, personal interview, 12 Nov. 2010.

⁵ Anders Holdar, personal interview, 28 Oct. 2011.

⁶ Michael Burritt, personal interview, 20 Jan. 2013.

As Anders Holdar has gotten older, he has found it progressively harder to transition from his daily routine to practicing. “When I was younger, I had a much easier time going into performance mode, but growing older, things are in your mind. More things about your daily life than about being a musician.” As a result, “it is important to have some sort of warm-up that reminds your mind what it is about to do.”⁷

Brian Nozny finds that mentally focusing the brain “can take five minutes or sometimes it can take ten minutes.” It takes time to clear the mind of other responsibilities and issues outside the practice room, and if Nozny doesn’t “have that clear mental head space, the practice session will be a wash.” To help clear his head, Nozny obsessively focuses on something. For instance, “I’m going to play C major chords, and I’m not going to move on until they are the world’s most perfect C major chords. Everything is balanced. I’m moving exactly the same way and I’m not having any flams.”⁸

“The muscles we use in playing . . . need to go through a period of movement before they respond fluently and quickly to signals from the brain,”⁹ said Barry Green in his book *The Mastery of Music*. Gary Cook agrees and finds that he has to “warm up both the physical muscles and the neural pathways.”¹⁰ He believes this is best accomplished by fully engaging the brain in mentally challenging exercises. For this same reason, William Moersch avoids warm-ups that use “dumb repetition” because it usually results in him zoning out. “I try to come up with various little warm-up exercises that involve some

⁷ Anders Holdar, personal interview, 28 Oct. 2011.

⁸ Brian Nozny, personal interview, 30 May 2012.

⁹ Barry Green, *The Mastery of Music: Ten Pathways to True Artistry*, (New York, NY: Broadway Books, 2003), 78.

¹⁰ Gary Cook, personal interview, 2 Nov. 2012.

aspect of transposition.”¹¹ This engages the brain and forces the player to be conscious of what is currently being played and what is about to be played. Additionally, the exercise must be continuously analyzed to make the correct transpositions.

Michael Burritt said he also believes in the importance of finding mentally challenging warm-ups. “I try to find things that make me concentrate.” For this reason, he prefers warming up with Bach chorales because it forces him to think “about the voices” and challenges his ability to play various “voicings.”¹²

Diagnose the Body

It is clear that warming up is not only important for the body, but it is also important for the mind. Physically, the muscles must be warmed up to avoid injury and the brain must have time to transition from previous activities and gain focus. Unfortunately, the body and mind don’t always automatically respond to these warm-ups in the desired way. Muscles may be sore or tight from a previous practice session or other unrelated activity, and the brain might lack focus due to sleep deprivation or overstimulation. When this is the case, Robert Schietroma doesn’t fight it. Instead, he embraces the current state of his body and mind and adjusts his practice session accordingly. “Regardless of the instrument I have certain exercises [that are] diagnostic,” said Schietroma. These exercises let him know how his body is functioning that day. If his body is feeling poor, it

¹¹ William Moersch, personal interview, 12 Nov. 2010.

¹² Michael Burritt, personal interview, 20 Jan. 2013.

doesn't make sense to work on a virtuosic marimba solo. Instead, he may choose to "sit down in an easy chair and learn notes [mentally]." ¹³

Using the warm-up to diagnose how one can be most efficient that day is a unique and powerful idea. Why practice the same way every day if the human body and mind are in constant flux? Adjusting one's practice schedule to accommodate how the body and mind are functioning will result in a more efficient and pleasurable practice experience.

~ Four Warm-up Categories ~

Warming up can be divided into four categories: kinesthetic warm-ups, technique and accuracy-based warm-ups, music-based warm-ups, and improvisation and theory-based warm-ups. Each category has a different emphasis and the most appropriate method depends on the player's personality and individual goals. Warm-up routines don't have to fall into a single category, in fact, an ideal warm-up should incorporate multiple categories.

~ I. Kinesthetic Warm-ups ~

Kinesthetic warm-ups focus on warming up and preparing the body. They are typically paired with one of the other three warm-up categories and are more akin to a pre-warm-up. "No matter what instrument I'm going to be working on, the first thing you have to

¹³ Robert Schietroma, personal interview, 3 Nov. 2012.

do is get good blood circulation,”¹⁴ said Robert Schietroma. Percussion is a highly physical activity and requires many different muscle groups, large and small. For muscles to function properly and at their highest capacity, good blood flow is crucial.

For this same reason, Anders Holdar never starts his warm-up with sticks. He prefers to do kinesthetic movements, unrelated to percussion, until his “body wakes up.” Once the blood flow in his arms and torso are pumping and his body starts to get warm, he goes to the next step, which is “technical practicing.”¹⁵

Michael Udow’s kinesthetic warm-up is very similar to Holdar’s in that he is not “thinking percussion at this point, but just loosening up.” He does “slow, very easy” movements of the upper body with increasing rotation of his torso and shoulders. He learned this technique from Japanese drummers while doing “Kodo workshops in Japan . . . They take participants through slow and easy rotations of the torso to warm up the body,”¹⁶ explained Udow.

As with any athletic activity, once the blood is flowing and the muscles warm up, the body should be stretched. “Even two minutes of stretching works wonders by circulating blood and oxygen to thirsty tissues throughout the body,” said Madeline Bruser in her book, *The Art of Practicing*. “When fresh blood and oxygen aren’t pumping freely through the body tissues, the muscles get tired and don’t function well.”¹⁷ James

¹⁴ Robert Schietroma, personal interview, 3 Nov. 2012.

¹⁵ Anders Holdar, personal interview, 28 Oct. 2011.

¹⁶ Michael Udow, phone interview, 16 Nov. 2012.

¹⁷ Madeline Bruser, *The Art of Practicing* (New York, NY: Bell Tower, 1997) 30.

Campbell has a series of stretches that he does before playing. His first stretch focuses on the “extensor and flexor muscles” in his forearms. His second stretch targets the muscles in his hands. “I tuck my thumbs into my fists and straighten my arms to stretch the muscle between my thumb and wrist.”¹⁸ Campbell does each stretch three times with periods of relaxation in between.

William Moersch warms up his body in a much more unorthodox manner. He believes it’s important to warm up all “the muscles and the tendons involved,” and does this by submerging his arms “in fairly hot water for three to five minutes . . . I’ll fill a sink with hot water that is not scalding but as hot as you could tolerate. I try to find a fairly deep sink so I can sink my elbows, forearms, and hands without contracting my wrists in any way.” Then he uses Nivea Hand Cream and “gently massages it into the skin . . . [I] move through a range of motions in my forearms, down to my wrists, and then down to my fingers.”¹⁹

There are many ways to warm-up and prepare the body to play. All bodies are a little different and require different forms of preparation. It is important for every player to figure out what their body needs most and take the necessary precautions to ensure their body is ready to play. This type of kinesthetic warm-up is not intended to be the sole form of preparation. It should be combined with at least one of the other three categories.

¹⁸ James Campbell, personal interview, 25 Mar. 2013.

¹⁹ William Moersch, personal interview, 12 Nov. 2010.

~ II. Technique and Accuracy-based Warm-ups ~

Of the thirty-six percussionists interviewed, twenty-four of them use technique and accuracy-based warm-ups, making it the most common type of warm-up. While not all twenty-four of these percussionists used technique and accuracy-based warm-ups on every instrument, the majority did when warming up on mallet instruments. This may be attributed to the fact that playing mallets requires incredible accuracy due to the size of the bars and instruments. This category of warming up focuses on building and reinforcing fundamental skills and techniques. Many of the percussionists interviewed use technique and accuracy-based exercises as part of their daily warm-up routine and attribute much of their technical proficiency to warming up in this manner.

For younger or less experienced players, technique and accuracy warm-ups are essential to their development. For older more mature musicians, it's a way to maintain their technical skills. "I have to go through these motions if I really want to play the way I want to," said Thomas Burritt. "[When warming up], I'm reviewing my whole approach to playing which includes stroke, stance, and how I move."²⁰

Mark Ford believes that every young player needs to spend a significant amount of time working on technique and accuracy exercises in order to develop his or her skills as a musician. "When I was really young, I was doing technique a minimum of forty-five minutes to an hour a day because I needed to get my hands to work right."²¹

²⁰ Thomas Burritt, personal interview, 3 Nov. 2012.

²¹ Mark Ford, personal interview, 12 Nov. 2010.

John Lane agrees with Mark Ford and believes that everybody “needs to devote a percentage of [their] time to technical practice.” Lane encourages less experienced players to spend “sixty percent”²² of their practice time on technique.

Having this type of “discipline gives the musician freedom,” stated Janos Starker in Barry Green’s book, *The Mastery of Music*. “It is mastery of your instrument and technique that leaves you free to serve the composer and the piece.”²³

Blake Tyson also attributes his current technical abilities to the warm-up exercises he did when he was younger. “I used to have a regular warm-up routine that consisted of linear scale stickings, arpeggios, and all sorts of exercises from *Method of Movement* that I would do everyday. I think that really helped my technique a lot. It gave me a solid grounding in technique.”²⁴ *Method of Movement*, by Leigh Howard Stevens, is considered to be the first technique book to clearly explain and develop the four-mallet grip known as ‘Steven’s grip.’ The exercises in his book were widely used by the percussionists interviewed.

Brain Zator has found that having great technique not only allows the player to execute at the highest level, but it “makes the music much easier to learn.” Once the player has reached a high level of technical proficiency, learning music progresses much faster

²² John Lane, personal interview, 12 Nov. 2011.

²³ Barry Green, *The Mastery of Music: Ten Pathways to True Artistry*, (New York, NY: Broadway Books, 2003), 138.

²⁴ Blake Tyson, personal interview, 3 Nov. 2012.

because execution does not have to be practiced. For this reason, Zator's warm-up is intended to raise his "technique to a higher level."²⁵

When doing technique and accuracy-based exercises, it is important to treat them like a warm-up. Technical exercises can be very demanding physically so early in the warm-up, they must be approached carefully.

Joshua Smith starts by warming up his "Big muscles first . . . I took a weight lifting class in my undergrad and that was the concept. Big muscles and then work down to small muscles because you need to be warm or you'll tear your small muscles."²⁶

Andy Harnsberger takes this same approach when warming up on the marimba. He starts with "warming up the big muscles first" by doing "double vertical strokes and block chords." After those muscles get warmed up, he moves to the smaller muscle groups, focusing on "single independent strokes . . . single alternating strokes . . . permutations . . . and one handed rolls."²⁷ Of the percussionists interviewed, this concept was generally applied to warm-ups on all instruments, not just marimba.

Gary Cook also uses this same method when warming up on snare drum. Similar to Smith and Harnsberger, Cook's warm-up moves from "large muscles down to smaller muscle groups."²⁸ James Campbell uses this method when warming up on timpani as

²⁵ Brian Zator, personal interview, 2 Nov. 2012.

²⁶ Joshua Smith, personal interview, 11 Nov. 2011.

²⁷ Andy Harnsberger, personal interview, 2 Nov. 2012.

²⁸ Gary Cook, personal interview, 2 Nov. 2012.

well. “With timpani . . . I’ll do wrist-relaxed eighths. I’ll do eighth notes and sixteen notes, switching hands . . . [utilizing] big muscle groups and floppy movements.”²⁹

Technique and accuracy-based exercises should be applied to all instruments. Although the exercises themselves may vary due to the differences in instrumental techniques, the concept should remain the same – develop and maintain fundamental technique on the instrument so that execution is not hindered by poor technical skill.

Warm-ups on Mallet Instruments

On mallet instruments, most of the percussionists interviewed used technique and accuracy-based warm-ups structured around stroke types and music theory fundamentals.

Kevin Bobo warms up with “very basic *Method of Movement* type exercises.” His warm-up is the exact same every day, consisting of seven exercises, “very slow and in the key of C but never with a metronome.” The first four exercises consist of scales and arpeggios using both one and two hands. Bobo refers to exercises five and six as “fast patterns.” Fast patterns are double laterals that “start at the bottom of the keyboard and move up the keyboard slowly and chromatically until you get to the top.”³⁰ This is done using four different double lateral permutations, first in sixteenths then in triplets. Both sixteenths and triplets are done outside to inside and inside to outside. The seventh and

²⁹ James Campbell, personal interview, 25 Mar. 2013.

³⁰ Kevin Bobo, personal interview, 13 Nov. 2010.

final warm-up consists of a series of one-handed roll exercises. It usually takes him about twenty-five minutes to complete the entire warm-up.

Brett Dietz likes to do a couple warm-up exercises for each stroke type. First he works on double verticals, using various “interval shifting”³¹ exercises. Then he moves to exercises that utilize single independent, single alternating, and triple vertical strokes.

Similarly, Gordon Stout starts by doing double vertical strokes to get his “muscles limbered up and to get balance, coordination, and relaxation going . . . Then I will go into single alternating strokes and sequential sticking patterns (triple laterals) and sometimes even interval-changing exercises if I need to get my fingers more limber.”³²

It should be noted that all three percussionists above utilize the same progression of stroke types. They all start with double verticals, which utilize the largest muscle groups and simplest motions and finish with triple laterals, which use smaller muscles and quicker more complex motions. This concept of dividing the warm-up by stroke types and muscle groups is most likely attributed to the format of Steven’s book, which was commonly used by the percussionists interviewed.

The other type of technique and accuracy-based warm-ups are structured around the fundamental elements of music theory, such as scales and arpeggios. While many of the stroke types are used in these exercises, the focus switches from developing textbook

³¹ Brett Dietz, personal interview, 1 Nov. 2012.

³² Gordon Stout, personal interview, 3 Nov. 2012.

stroke types to building accuracy and proficiency on the instrument. Among the percussionists interviewed, this was most commonly done using scales and arpeggios.

Michael Udow likes to “warm up with fluid and relaxed scales.” He uses this to build accuracy in his playing, not only with reference to the notes themselves, but also to the specific playing spot on each bar. “I think about where my mallets are coming in contact with the bars,” said Udow. Correct playing spots are important for achieving optimal tone quality and are determined by “listening for the tone in each marimba bar.”³³ This forces Udow to play the scales at a moderate tempo so that he can focus on this subtle detail.

In contrast, other percussionists interviewed, such as Andy Harnsberger and Eric Willie, work on developing note accuracy at maximum tempos. For this purpose, using exercises from George Hamilton Green’s *Instruction Course for Xylophone* was the most popular choice.

While Green’s book is extremely useful, the scales and exercises are derived from the ragtime era, making some of the patterns and harmonic language outdated. For this reason, Payton MacDonald prefers to use exercises from Nicolas Slonimsky’s book, *Thesaurus Of Scales And Melodic Patterns*. This book uses harmonies and scalar patterns not typical of Western tonality and is generally used to develop a jazz vocabulary. MacDonald finds these exercises more interesting and does “different kinds of artificial scales from the Slonimsky book.” Learning arpeggios and scales in “all kinds of

³³ Michael Udow, phone interview, 16 Nov. 2012.

modes”³⁴ has led to a more creative and interesting warm-up routine for MacDonald and has also inspired him to create original exercises that expand and explore various combinations.

Brian Zator also finds technique and accuracy-based warm-ups boring at times, so he finds ways to make them more interesting as well. Zator wrote play-along tracks for his five basic exercises. He has three or four tracks, each at different tempos, which utilize both two and four mallets techniques. Instead of having a “Dr. Beat blaring through the speakers, I have a rock tune or African music. I have an African 12/8 groove for my double stroke exercises and a jazz thing for my blues scales.”³⁵

Warm-ups on Snare Drum

Similar to warming up on mallet instruments, technique and accuracy-based warm-ups on the snare drum are typically structured by stroke type and rudiments, with rudiments being the drumming equivalent of scales and arpeggios.

Most of the percussionists interviewed use exercises from George Lawrence Stones’s book, *Stick Control*. Similar to *Method of Movement*, *Stick Control* is considered to be the definitive source for developing the basic snare drum stroke.

³⁴ Payton MacDonald, personal interview, 3 Nov. 2012.

³⁵ Brian Zator, personal interview, 2 Nov. 2012.

Jason Baker's daily routine includes playing through page five of *Stick Control*, which was common among the percussionists interviewed. Eric Willie does this same thing, but plays "both full and tap heights . . . about one-hundred beats per minute for the half note . . . [It] gets my hands moving,"³⁶ said Willie.

While this book primarily focuses on fluid legato strokes, George Lawrence Stone has another book titled *Accents and Rebounds* that incorporates down and up strokes. These added stroke types use smaller muscle groups and are typically done after playing *Stick Control*. Many of the percussionists interviewed, including Eric Willie, adhere to this progression. "Whenever I'm through [with *Stick Control*], [I do] a couple of variations of *Accents and Rebounds*." Similar to *Stick Control*, Willie only does the first page of exercises, page four, and does it at the same tempo. He only has to do it for "five minutes [to get his] blood flowing."³⁶

John Lane also starts his snare drum warm-up with *Stick Control*, but then moves to another commonly used book, *Wrist Twisters* by Buster Bailey, to work on his "shaping." He finds that this book is great for working on "subtle changes of velocity and dynamics." Next, Lane moves to exercises that incorporate smaller muscle groups. "I will work on rolls, both soft and loud, and then connect them together. Then I will work on ornaments."³⁷

³⁶ Eric Willie, personal interview, 11 Nov. 2011.

³⁷ John Lane, personal interview, 12 Nov. 2011.

Ornaments are a type of rudiment and are saved for the end of Lane's warm-up because they require the smallest muscle groups. Rudiments are the fundamental building blocks of snare drum vocabulary, much like scales and arpeggios are for mallets. If all the rudiments are perfected, the player will be able to learn music more quickly because most snare drum pieces are simply lines of rudiments linked together. For this reason, Brett Dietz always incorporates rudiments into his snare drum warm-up routine as well. "Pretty much on a daily basis, I play all my rudiments slow to fast to slow."³⁸

Similar to the trend seen in the mallet warm-ups, many of the percussionists interviewed prescribe to only a few standard snare drum books. Michael Udow, however, is different from the rest in that he uses "a compilation of etudes from a variety of different method books . . . In a way, it is kind of my personal mini-course pack,"³⁹ said Udow. This adds interest to the warm-up experience and allows Udow to select his favorite exercises for each stroke type or rudiment.

Brian Zator believes that having a diverse warm-up routine provides the best and most enjoyable warm-up. For this reason, he uses Jeff Queen's *Ten Minute Warmup*. "It's literally ten minutes and goes through all the basic stroke types. It includes grid exercises, flams, drags, and concludes with some triplet exercises."⁴⁰ In addition, it includes a ten minute play-along track that keeps the player on task and entertained. Queen's *Ten Minute Warmup* was the inspiration behind Zator's play-along tracks that he created for his mallet exercises.

³⁸ Brett Dietz, personal interview, 1 Nov. 2012.

³⁹ Michael Udow, phone interview, 16 Nov. 2012.

⁴⁰ Brian Zator, personal interview, 2 Nov. 2012.

Warm-ups on Timpani

Among the percussionists interviewed, timpani warm-up routines were very similar to snare drum warm-up routines. Following the trend established by both mallet and snare drum warm-ups, timpani routines were typically structured according to stroke types and technical elements such as tuning, rolling, and muffling.

Christopher Deane, James Campbell, and Michael Udow all use timpani warm-ups that are extremely similar to their snare drum warm-ups. Deane said that his timpani warm-up is “virtually the same” as what he does “on a practice pad for snare drum . . . Of late, I’ve been using the *Accents and Rebounds* patterns at the bottom of the pages.”⁴¹ Likewise, Campbell said his timpani warm-up routine was basically “the same” as his snare drum warm-up. He does “wrist-relaxed eighths” and other “floppy movements [that use] big muscle groups.”⁴² Similarly, Udow warms-up with “flowing sixteenth notes” and other exercises that use motions that “aren’t mechanical but fluid.”⁴³ All of these methods focus on a loose and relaxed stroke that uses large muscle groups.

John Tafoya’s timpani warm-up, although not always the same from day to day, focuses more on technical elements and incorporates some of the smaller muscle groups. He typically does “short etudes or exercises”⁴⁴ from Saul Goodman’s *Modern Method for*

⁴¹ Christopher Deane, personal interview, 12 Nov. 2010.

⁴² James Campbell, personal interview, 25 Mar. 2013.

⁴³ Michael Udow, phone interview, 16 Nov. 2012.

⁴⁴ John Tafoya, personal interview, 13 Nov. 2010.

Tympani, or creates his own exercises that isolate specific techniques such as rolling or muffling.

One of the challenges of doing technical exercises on timpani is the inconsistent set-up. Timpani are typically shared in a communal practice room and since each drum can be moved independently from the rest, the positioning of the drums may be slightly different each time they are played. For this reason, Julie Licata spends a portion of her timpani warm-up time “to figure out where the instruments are [and] reacquaint”⁴⁵ herself with the set-up.

Technique and accuracy-based warm-ups are an important part of every player’s development and although they may not forever remain part of their daily routine, it is essential that every player spends a period of their life using this method. Mastery of an instrument is impossible without dedicating quality time perfecting fundamental strokes and techniques. These skills allow for better execution and enable the player to fully express him or herself without being hindered by technical deficiencies.

~ III. Music-based Warm-ups ~

The benefits of technique and accuracy-based warm-ups are clear, especially for players who are earlier in their development. While some people genuinely enjoy the methodical routine of technique and accuracy-based warm-ups, for others, the monotony of repetition can be painfully boring. Brian Zator’s play-along tracks are one solution for dealing with

⁴⁵ Julie Licata, personal interview, 12 Nov. 2011.

this issue, however, many others would rather abandon technique and accuracy-based exercises all together. For that reason, eleven of the thirty-six percussionists interviewed use warm-up routines that are based on musical material. It should be noted, that all eleven percussionists were quick to admit that they had previously spent large periods of their life warming-up using technique and accuracy-based exercises, and in fact, many of them still do a combination of both.

Andy Harnsberger's warm-up routine is largely technique and accuracy-based but he always saves time at the end for a music-based exercises. "Always at the end of my routine I have five or ten minutes where I focus on one particular technique from a piece that I'm working on. It might be giving me problems or just something I want to isolate for that period of time,"⁴⁶ said Harnsberger. Mark Ford also dedicates the end of his warm-up sessions to music-based exercises. He spends the first portion of his warm-up improvising, but then moves to technical exercises "based on pieces that [he's] preparing at the time."⁴⁷ When doing technique and accuracy-based warm-ups that aren't related to the music, it can feel as though valuable practice time is being wasted. Although fundamental technique is extremely important, there comes a point in the player's development when that does not need to be worked on every day.

Music-based warm-ups are categorized as any type of routine that involves elements of a piece of music. The line between technique based warm-ups and music-based warm-ups is often blurred due to the fact that many of the stroke types practiced during technique

⁴⁶ Andy Harnsberger, personal interview, 2 Nov. 2012.

⁴⁷ Mark Ford, personal interview, 12 Nov. 2010.

and accuracy-based warm-ups are naturally occurring in the compositional language. This often results in a warm-up routine that straddles both categories. For example, exercises containing buzz rolls are often a part of technique and accuracy-based warm-ups but buzz rolls are widely used in the snare drum repertoire. Jason Baker described such a situation. “If I’m doing something that uses a lot of buzz rolls and stuff, I have my own buzz roll exercise that I use.”⁴⁸

Often times, while working on a piece of music, technical deficiencies are revealed. Warming up with deficient techniques from a piece of music is a great way to fill in the player’s ‘technical holes’ while maximizing productivity. For this reason, Brian Nozny always spends time during his warm-up session looking at whatever he is “learning or playing” to find spots that give him technical troubles. Then he creates his warm-up around those technical issues. For instance, when Nozny was working on *Merlin* by Andrew Thomas, he spent a lot of time warming up with “scales and octaves.”⁴⁹

Omar Carmenates varies from Nozny and others in that he likes to create exercises based on “certain licks” from the piece. Instead of practicing the technique independent of the music using standard exercises, Carmenates creates an exercise from the lick itself. For example, when working on *Chameleon* by Eric Sammutt, Omar discovered that there was a “2-1-2-3-4-3 sextuplet run” that he couldn’t do at tempo so he incorporated it into his daily routine. “I would warm-up with that permutation every time.”⁵⁰

⁴⁸ Jason Baker, personal interview, 11 Nov. 2011.

⁴⁹ Brian Nozny, personal interview, 30 May 2012.

⁵⁰ Omar Carmenates, personal interview, 12 Nov. 2011.

Similarly, Matthew Duvall takes whatever musical passage is giving him trouble at the time and “turns it into an exercise.”⁵¹ In addition to being incredibly efficient, this method creates a much more interesting and engaging warm-up. It forces the player to compose or arrange exercises based on the musical material, thus improving their creativity and compositional skills. “I’m warming up my brain at the same time as I’m warming up my hands, and also addressing some of the techniques that are maybe specific to those pieces,”⁵² said Jason Baker, who also uses this method.

Six of the thirty-six percussionists interviewed use music-based warm-ups in a totally different way. They eliminate exercises altogether and warm-up by playing the music as written but at a much slower tempo. John Parks is one who uses this method and describes it as “really slow practice of whatever it is that I’m working on.” Even though Parks is playing the music down tempo, he tries to maintain all of the musical elements.

If I’m playing Bach, I actually warm up by playing through Bach really slow, but with everything in place. All the lines that I want to bring out and everything sounds the way I want it to sound. The only difference between that and actually being on stage is the tempo.

Parks admits that since discovering this way of warming up he doesn’t do “real warm-ups anymore . . . I mostly just warm-up by playing the music that I play.” He finds that this method maximizes his practice time because his warm-up becomes practicing the music.

When using this method, the player must be careful that they don’t transition into the ‘practicing’ portion too quickly. Since the only distinction between warm-up material and

⁵¹ Matthew Duvall, personal interview, 1 Mar. 2013.

⁵² Jason Baker, personal interview, 11 Nov. 2011.

practice material is tempo, it can be very easy to make the transition prematurely. “I’m physically making sure that my muscles are doing what they need to do in order not to hurt myself and to do what I need to do with some consistency,”⁵³ said Parks.

Matthew Duvall also advocated warming-up in this manner but warns that the player must do “things really slowly and thoughtfully [and not] just charge in playing [the] loudest and fastest stuff.”⁵⁴ While Duvall and Parks use this method on a regular basis, Michael Udow only uses it if “there is a crunch.” When Udow lacks time, he goes straight to his repertoire and “play(s) under tempo fluidly.”⁵⁵ Gordon Stout agrees, as long as it is done “very, very slowly,” it can be extremely productive when the player has “less time.”⁵⁶

Blake Tyson said his practice time is much more limited than it used to be and he doesn’t have time to warm-up the same way he did as a student. He strongly believes in warming up, but has found the most productive use of his time is playing the things he “need(s) to learn.”⁵⁷ Omar Carmenates also likes to learn a new piece of music while warming up. When using this method, Carmenates advised playing “licks really slow”⁵⁸ so that they still function as a warm-up. Carmenates’ process for learning a new piece of music is extremely slow and methodical anyway, so using this as his warm-up routine fits him quite naturally.

⁵³ John Parks, personal interview, 12 Nov. 2011.

⁵⁴ Matthew Duvall, personal interview, 1 Mar. 2013.

⁵⁵ Michael Udow, phone interview, 16 Nov. 2012.

⁵⁶ Gordon Stout, personal interview, 3 Nov. 2012.

⁵⁷ Blake Tyson, personal interview, 3 Nov. 2012.

⁵⁸ Omar Carmenates, personal interview, 12 Nov. 2011.

Michael Burritt also uses music-based warm-ups, but he doesn't always play what he's working on.

I like to play something musical to warm-up. Maybe a Bach chorale, an adagio from one of the Bach sonatas, or one of my pieces like "The Offering." Something simple but something that makes me think musically. Along with trying to get my hands moving, I'm trying to get myself into the sound of the instrument and thinking musically.⁵⁹

Warming up with a familiar piece of music can be extremely enjoyable. Unfortunately, musicians seldom have the time to play music purely for enjoyment without thinking about how to make it better or how soon it has to be performed. For this reason, warming up with a familiar piece can positively affect the emotional environment of the entire practice session. Playing a piece that the player knows and loves, builds confidence in their technical and musical abilities and can energize their entire practice session.

Another great music-based warm-up is sight-reading. This method, which is regularly utilized by three of the thirty-six percussionists interviewed, automatically incorporates this much-needed task (sight-reading) into one's daily routine. Payton MacDonald sight-reads "Bach for a good fifteen to twenty minutes . . . every day"⁶⁰ and finds it to be extremely productive, yet enjoyable.

Michael Udow also "likes to read as a warm-up" but does it on snare drum. He typically uses Morris Goldenberg's book, *Modern School for Snare Drum*, and reads the simple

⁵⁹ Michael Burritt, personal interview, 20 Jan. 2013.

⁶⁰ Payton MacDonald, personal interview, 3 Nov. 2012.

duets. “I’ll play the top line with my right hand and the bottom one with my left hand.” Besides being a good reading challenge, he finds that it focuses “on the stroke types in terms of downs, ups, taps, and fulls”⁶¹

~ IV. Improvisation and Theory-based Warm-ups ~

It is important to have fun in the practice room, but most of the time, circumstances don’t allow for these feelings. If practicing correctly, there should be very little down time, and most of the time should be spent doing focused and diligent work. In Geoffrey Colvin’s book, *Talent is Overrated*, he states, “practice is not inherently enjoyable. If it seems a bit depressing that the most important thing you can do to improve performance is no fun, take consolation in this fact.”⁶²

According to Eric Willie, during a lesson with Christopher Deane, Deane compared practicing to being in prison.

*When I walk into the practice room, I imagine I’m in prison. I’m here for two hours. I can do nothing else. But hey, look, I’ve got a snare drum in front of me, and I’ve got some sticks, and I’ve got this book and I’ve got a metronome. So I could sit here and stare at the wall for two hours or I could practice. So I might as well practice.*⁶³

Technique and accuracy-based warm-ups as well as some music-based warm-ups can feel monotonous and boring and even conjure up feelings of imprisonment. For this reason, it

⁶¹ Michael Udow, phone interview, 16 Nov. 2012.

⁶² Geoff Colvin, *Talent is overrated: What really separates world-class performers from everybody else*, (New York, NY: Portfolio Hardcover, 2008), 72.

⁶³ Eric Willie, personal interview, 11 Nov. 2011.

is easy to mentally check out and resort to autopilot. When this happens, the muscles may still get warmed up, but the brain does not and productivity stagnates.

For those reasons, some musicians prefer improvisation and theory-based warm-ups, which require the brain to be engaged the entire time, resulting in a more intellectually challenging and stimulating warm-up.

“I like to be inventive and sort of improvise too because it’s more fun that way,”⁶⁴ said Gary Cook when describing his warm-up routine. Cook’s routine is fairly normal in that he does technique and accuracy-based exercises, but he is unique in that he does not have a set of standard exercises. He finds it more fun to improvise his own based on a particular stroke type. This accomplishes the same goals as technique and accuracy-based warm-ups but promotes creativity and keeps his mind engaged, making the warm-up experience much more enjoyable.

Mark Ford also improvises, but does it in a much freer manner. Every day, his warm-up “starts off with improvisation” and may continue for “ten minutes or thirty minutes.”⁶⁵ Unlike Cook, Ford does not base his improvisations around technical exercises. Instead, it is a free improvisation that has no restrictions or limitations. This allows for total freedom of expression and works on his improvisational skills.

⁶⁴ Gary Cook, personal interview, 2 Nov. 2012.

⁶⁵ Mark Ford, personal interview, 12 Nov. 2010.

As classical musicians, the opportunities to improvise can feel few and far between, and as a result, many players lack both experience and confidence. Warming up with improvisation is a great way to experiment and practice this often-neglected skill.

Of the thirty-six percussionists interviewed, five regularly utilize improvisation and theory-based warm-ups and it should be noted that nearly all are internationally recognized composers. This speaks to the skills that are developed when doing improvisation on a daily basis. Just like anything, the only way to improve is by practicing. “Everyone has some ability to discover music inside himself. Even if you’ve never done so before, you might like to explore the composer with you,” says Barry Green in his book, *The Inner Game of Music*. “When I improvise, I strengthen my connection with my own musicality and can bring an increased spontaneity and freshness to my performances.”⁶⁶

Gordon Stout frequently improvises during his warm-ups and credits this time as the source of many of his compositional ideas. Unlike Ford, Stout doesn’t treat this time as a free improvisation. He always starts with technique and accuracy-based exercises, but that “often leads to improvising and coming up with ideas for pieces.” Usually this departure from technical exercises occurs while doing “double vertical strokes in both hands.”⁶⁷ Like Cook, he doesn’t have pre-determined exercises, so when he starts

⁶⁶ Barry Green, and W. Timothy Gallwey, *The Inner Game of Music*, (Garden City, NY: Anchor Press/Doubleday, 1986), 209.

working on double verticals, he is free to “explore different kinds of harmonies and structures . . . That’s not often my specific intent, it just kind of happens sometimes.”⁶⁷

While improvising over harmonic progressions can develop compositional ideas, it can also be used to improve the player’s fluency with music theory. This can be achieved simply by transposing pre-existing technique and accuracy-based exercises. For example, Brian Nozny plays block chords in root position and cycles them through the inversions until he returns to root position an octave up. Then he transposes it chromatically and goes through all twelve keys.⁶⁸

William Moersch also likes to transpose his warm-up exercises through all twelve keys. He has a “mode exercise” which he transposes through “all twelve keys in a continuous stream.”⁶⁹ In addition to improving the player’s music theory and improvisational skills, improvisation and theory-based warm-ups are a great way to engage the brain and keep the player constantly thinking ahead. Whether processing the next transposition or trying to think of a new thematic idea, this type of warm-up not only readies the body and mind, but improves the player’s musical knowledge.

~ Warm-up Length ~

There are many different ways to warm-up and each method serves various purposes.

While the ultimate goal is to prepare the body and mind to play, there are many other

⁶⁷ Gordon Stout, personal interview, 3 Nov. 2012.

⁶⁸ Brian Nozny, personal interview, 30 May 2012.

⁶⁹ William Moersch, personal interview, 12 Nov. 2010.

skills that can be acquired during this time. With so many benefits, how long should these warm-ups last?

Warm-up time is often proportional to the overall length of time allotted to practice. Michael Burritt's warm-up is dictated by the specific "day and the amount of time to practice."⁷⁰ Others have fixed length warm-ups, and there is a wide range among the many examples mentioned here. For instance, Mark Ford used to do "technique a minimum of forty-five minutes to an hour a day,"⁷¹ while Kevin Bobo always uses the same "twenty-five minute"⁷² routine, and Brian Zator currently warms-up for "ten minutes."⁷³

Others interviewed said they have multiple warm-up routines, which are selected based on the situation. For instance, Ben Wahlund has "two types of warm ups . . . a short one for short to medium practice sessions and a long one for extensive practice sessions."⁷⁴ Sometimes warm-ups have to be incredibly short due to outside factors. Brian Zator for instance, has "a couple of exercises" that gets him ready to go "in about three minutes."⁷³

Little or No Warm-up

A warm-up of just three-minutes might seem too short to be effective, but for some people, their body does not require as much time as most. John Lane said his body

⁷⁰ Michael Burritt, personal interview, 20 Jan. 2013.

⁷¹ Mark Ford, personal interview, 12 Nov. 2010.

⁷² Kevin Bobo, personal interview, 13 Nov. 2010.

⁷³ Brian Zator, personal interview, 2 Nov. 2012.

⁷⁴ Ben Wahlund, email interview, 31 Oct. 2012.

“doesn’t need to warm up too much . . . [He] can play a little stick control [and be] ready to go.”⁷⁵ Brian Mason has similar sentiments, particularly when schedules don’t allow time for it, saying, “In most cases, through limited practice time, I jump right in.”⁷⁶

Sometimes the need and length of warm-ups depend on the instrument. Frederic Macarez said he rarely “warms-up before anything” because he feels that “it’s not really necessary on the timpani.”⁷⁷

When preparing for orchestral auditions, some players purposely omit their warm-up routines. John Tafoya has found that at orchestral auditions, there is usually not an “opportunity to do a warm-up routine.”⁷⁸ So to best prepare for this scenario, Tafoya will eliminate his warm-up routine from his audition preparation.

~ Conclusion ~

The primary function of warming up is to prepare the body and mind to play. While all four categories are significantly different in their approach and focus, each one of them has unique benefits. Each category can be used independently, but many of the categories are most effective when overlapped or used in tandem. Each player should explore and test all of the different types of warm-ups to discover which methods work best for them.

⁷⁵ John Lane, personal interview, 12 Nov. 2011.

⁷⁶ Brian Mason, personal interview, 10 Mar. 2013.

⁷⁷ Frederic Macarez, personal interview, 27 Oct. 2012.

⁷⁸ John Tafoya, personal interview, 13 Nov. 2010.

For younger players, technique and accuracy-based warm-ups are essential for their development and progress and should be taken extremely seriously. For more advanced players, especially those who struggle to find enough hours in the day to practice, music based warm-ups are ideal for maximizing time. Improvisation and theory-based warm-ups seem to be utilized the least by classical percussionists. While these skills are arguably less important for the performing classical percussionist, for this reason, many percussionists have severe deficiencies in these areas. The ability to improvise proficiently is a crucial skill that most upper echelon players possess. Contrastingly, this is an apparent weakness for many amateur level musicians. Having the technical facility and theoretical understanding to improvise on one's instrument is a fundamental skill that all musicians should possess. For this reason, improvisation and theory-based warm-ups should be a part of every percussionist's warm-up vocabulary.

Regardless of which method or methods are chosen, it is important to properly prepare the body and mind to avoid injury and maximize productivity. While this should remain the priority, warm-up time should not be wasted. Warm-ups are a time to develop and polish a variety of fundamental skills and should not be neglected.

Figure 15: Survey – Warming-Up

A. Kinesthetic Warm-Ups	If yes, try method...
Are your feet and hands usually colder than the rest of your body?	A1
Do you have a history of percussion related injuries?	A2, A3, A4
Does it take you a long time to feel warmed up?	A1, A3
Do you experience muscle soreness after a long practice session?	A2, A4
Do you experience a lot of stiffness in your wrists?	A1, A2
B. Technique and Accuracy-based Warm-Ups: Mallets	If yes, try method...
Are you a beginner or intermediate level player?	B1
Could your technique use some improvement?	B1
Do you enjoy music theory?	B2
Are you interested in jazz and improvising?	B2
Do you primarily play two-mallet repertoire?	B2
Do you primarily play four-mallet repertoire?	B1
C. Technique and Accuracy-based Warm-Ups: Snare	If yes, try method...
Are you a beginner?	C1
Do you get bored easily?	C2
Do you primarily play rudimental repertoire?	C2
Do you wish you could play faster?	C1
D. Technique and Accuracy-based Warm-Ups: Timpani	If yes, try method...
Are you a beginner or intermediate level player?	D1
Do you struggle with intonation?	D2
Do you have a hard time producing consistent sounds?	D1
Do you feel comfortable sight-reading on timpani?	D2
E. Music-Based Warm-Ups	If yes, try method...
Is your practice time limited?	E1, E2, E3
Are you unable to execute certain technical passages in your current repertoire?	E1
Do you have any auditions approaching?	E5
Do you commonly select repertoire that pushes your technical abilities?	E1
Do you have a hard time transitioning from your daily activities to practice mode?	E4
Do you dislike warming-up?	E3, E4, E5
Are you currently learning a new piece of music?	E2, E3
F. Improvisation and Theory-Based Warm-Ups	If yes, try method...
Are you inexperienced at improvising?	F1
Do you enjoy music theory?	F3
Are you an experienced composer?	F2
Do you like jazz?	F3
Do you work best with clear and detailed instructions and goals?	F1
Do you dislike following directions?	F2

Figure 16: Outline – Warming-Up

Method	Pages
A. Kinesthetic Warm-Ups 1. Stimulate Blood Flow and Circulation 2. Stretch Muscles 3. Warm Water 4. Muscle Massage	65-67
B. Technique and Accuracy-Based Warm-Ups: Mallets 1. Strokes Types 2. Scales and Arpeggios	68-73
C. Technique and Accuracy-Based Warm-Ups: Snare 1. Stroke Exercises 2. Rudiments	74-77
D. Technique and Accuracy-Based Warm-Ups: Timpani 1. Stroke Types 2. Short Etudes and Exercises	77-78
E. Music-Based Warm-Ups 1. Technical Exercise Based on Musical Material 2. Down-Tempo Music 3. Learn New Music 4. Set-Piece 5. Sight-Reading	78-84
A. Improvisation and Theory-Based Warm-Ups 1. Improvisation Based on Stroke Type 2. Free Improvisation 3. Improvisation Based on Harmonic Progressions	84-87

CHAPTER 5: LEARNING NEW MUSIC

~ Overview of the Piece ~

Receiving a new piece of music to learn and play typically evokes a wide variety of emotions in musicians. There may be excitement over the opportunity to learn a long-anticipated piece of music or anxiety about the challenge of something unfamiliar and daunting. The time available to learn a new piece can vary greatly, and almost always impacts reactions. For instance, is the piece to be played tomorrow, next week, or in six months? The function of the piece is also a factor. Is it for a solo recital or an orchestra concert? Is it part of the standard repertoire or a world premiere? The genre of music and the instrumentation both add additional considerations, challenges, and expectations. All of these circumstances combined affect the way one goes about learning a new piece of music.

Each of the thirty-six percussionists interviewed have developed their own general approaches to learning new music. Their specific methods may be altered depending on the particular circumstances, but most of their individual philosophies remain consistent regardless of the piece, time available, function, genre, and instrument.

Nearly all percussionists interviewed agreed that the first step to learning a new piece of music is to gain a general understanding and overview and identify areas of greatest importance. Blake Tyson believes that understanding the big picture is necessary to determine where he “wants to go with the piece,”¹ while Payton MacDonald finds that revealing the general architecture makes it easier for him to “hone in on the important details.”²

It is always the job of the performer to present the audience with their finest interpretation of a given composition and a thorough understanding is essential when presenting it in a musically informed manner. In Gerald Klickstein’s book *The Musician’s Way*, he describes it as being a “storyteller, you lead an audience through the narrative of a piece.”³ According to William Moersch, this requires presenting the audience with a “hierarchy” of musical material, in essence telling them “this is the important stuff. Hang on to this. This is transition. This is not so important. Uncovering the important details on the surface provides a clearer idea of the more subtle elements disguised beneath.”⁴ John Lane believes that this makes it possible to bring out the more “creative and abstract ideas”⁵ that would otherwise be lost.

¹ Blake Tyson, personal interview, 3 Nov. 2012.

² Payton MacDonald, personal interview, 3 Nov. 2012.

³ Gerald Klickstein, *The Musician’s Way: A Guide to Practice, Performance, and Wellness*, (New York, NY: Oxford University Press, 2009), 34.

⁴ William Moersch, personal interview, 12 Nov. 2010.

⁵ John Lane, personal interview, 12 Nov. 2011.

This initial overview of new music can be done in three distinct ways:

1. Sight-Reading on the Instrument
2. Studying the Score Away from the Instrument
3. Listening to a Recording of the Piece.

Sight-Reading on the Instrument

Sight-reading on the instrument is the preferred method to learn new music for twelve of the thirty-six percussionists interviewed. The most obvious challenge with this method is the difficulty of sight-reading more advanced literature. Few musicians possess the ability to sight-read a piece for the first time accurately and at tempo. As a result, most initially read it at a much slower tempo. James Campbell usually reads through pieces at half tempo, and sometimes even slower, since his initial goal is to “play the whole thing with correct rhythms, dynamics, and good tone quality.”⁶ In extreme cases, sometimes the first read-through must be broken down beat-by-beat or measure-by-measure. For instance, that was the method used by Payton MacDonald when he first learned commissioned works by both Stuart Saunders Smith and Charles Wuorinen.⁷

Some percussionists interviewed described even more unusual sight-reading methods they utilize when learning extremely complex music. Gordon Stout said he resorts to sight-reading new percussion pieces on the piano, as he finds it easier to use “ten fingers instead of four mallets.”⁸ In contrast, Brian Mason simply abandons the pursuit of

⁶ James Campbell, personal interview, 25 Mar. 2013.

⁷ Payton MacDonald, personal interview, 3 Nov. 2012.

⁸ Gordon Stout, personal interview, 3 Nov. 2012.

perfection. He refers to his first sight-reading as a “slop-through,”⁹ reading it as close to tempo as possible with little emphasis on accuracy. He finds that method helps him uncover all the trouble spots in the music, which aren’t always initially identifiable when the music is played at a much slower tempo.

Studying Away from the Instrument

Frederic Macarez also stresses the importance of reading through the piece to understand every aspect of the music and identify complicated sections, but he studies the score away from the instrument before playing it. Another who subscribes to this method is Ben Wahlund, who stated, “I will do a substantial amount of score study, including ‘mental practice’ in a particularly vivid mindset, [before] spending adequate time at the instrument.”¹⁰

Macarez and Wahlund aren’t alone in their thinking, as eighteen of the thirty-six percussionists interviewed utilize similar first steps when learning new music. This seems to validate the benefits of a score study but also raises the question, what exactly constitutes a score study? Is it a harmonic analysis? Is it a formal analysis? Is it a technical breakdown of stroke types or is it an identification of phrase structures? The list of possibilities is endless.

⁹ Brian Mason, personal interview, 10 Mar. 2013.

¹⁰ Ben Wahlund, email interview, 31 Oct. 2012.

Robert Schietroma suggests that the important thematic ideas in the score be identified first, followed by locating cadential points. Ideally, this should provide a rough idea of the general phrase structure and formal sections. Brian Nozny said he starts his score study, whenever the piece allows, with a rough harmonic analysis to identify key centers. He finds this information especially useful when memorizing the piece later because the harmonic labels provide another level of association, giving logical groupings to an otherwise random collection of notes. Thomas Burritt takes Schietroma's and Nozny's approaches a step further. He undertakes a full formal analysis to try and understand how each phrase and section fits into the larger formal context. William Moersch also completes a formal analysis, but in a very unusual way:

The first thing I would generally do is un-bind or copy it so I can spread all the pages out on the floor. This enables me to see the entire piece in one glance. I actually sit in a chair and look at it and really try to study the overall piece as carefully as possible. I try to gain an understanding of the structure of the piece and how it works and how it's put together . . . I'm really conscious about the structure of the piece and I try to understand that fully before going into the details too much further.

Once Moersch believes he fully understands the composition from a formal perspective, he gradually zooms in until he “understands every single detail.” At this point, he believes “you are halfway into the process.” Now it is necessary to “extract yourself and come back out again to the surface level because that's what you're presenting to the audience.” Moersch explains that the final step of his process is to orchestrate each passage, based on its formal function and character:

I would orchestrate just about everything in a solo marimba piece. I'd say, 'Now if this was the orchestra, which instruments are playing and how are

they playing? Is this pizzicato strings with a solo oboe? Is this a cello section?’ I was constantly thinking about the orchestral color and how something would be orchestrated. Then I turn back around and say, ‘This is what that sounds like. How can I get that sound out of the marimba? How can I make it sound like the pizzicato cello? How can I make it sound like an oboe?’¹¹

Listening to Recordings

The third method of gaining an initial understanding and overview of a piece is by listening to a recording of it. This method can be combined with the second method by following along with the score as you listen. Thomas Burritt believes this method is the best way to gauge the difficulty of a piece. Further, there are times when a video recording of the piece has clear advantages over audio recordings. For instance, most composers are not percussionists and certain phrases of music may be awkward or non-idiomatic. What may look easy on the page or sound easy in an audio recording may in fact prove to be very difficult or awkward to play, especially at the written tempo. Listening carefully to a recording may shed light on these difficult passages, but watching a video is often a better indicator.

Of the percussionists interviewed, the length of time spent familiarizing themselves with the general form and structure of the piece varied greatly. Some spend only their first practice session reviewing the piece as a whole, and others spend significantly more time. While Brian Mason does a quick ‘slop through’ of a piece, people like William Moersch may spend days analyzing it.

¹¹ William Moersch, personal interview, 12 Nov. 2010.

~ Scheduling Goals ~

Musicians and students alike typically feel the pressure of externally imposed deadlines. To best deal with these deadlines, many of the percussionists interviewed have developed personal routines to effectively learn new music in a limited time frame.

The most commonly used method involves creating a calendar or timeline to ensure steady progress. I-Jen Fang takes a very pragmatic approach and plans every day from the moment she begins learning the piece until it's first performed. She assigns days to each page or section of the music and keeps track of her progress on a separate piece of paper. For instance, she'll learn two pages per day for the first two or three days, reserving the fourth for assessment. She uses this method to give herself "some time to learn it, some time to review it."¹² Jason Baker utilizes a similar process by mapping out a timeline of what he needs to learn and by when. He is also very careful to leave "a good amount of time [at the end] to get comfortable"¹³ with the piece. This method of planning is highly effective, says Don Greene in his book, *Performance Success*, because "the human brain is a goal-seeking mechanism. It functions best with a progression of clearly envisioned targets."¹⁴ Planning a learning schedule doesn't necessarily have to encompass the entire process from day one to the day of performance. Michael Burritt,

¹² I-Jen Fang, personal interview, 11 Nov. 2011.

¹³ Jason Baker, personal interview, 11 Nov. 2011.

¹⁴ Don Greene, *Performance Success: Performing Your Best Under Pressure*, (New York, NY: Broude, 1978), 26.

for instance, sets short-term objectives. “Depending on the amount of time I have, I’ll set a goal for what I want to learn in that day’s session.”¹⁵

When learning new music, retention can be fragile. As deadlines approach, there is usually a tendency to memorize as much music as possible. Taking a few days off while learning a piece is typically detrimental to the learning process, as it often results in regression. Omar Carmenates finds this especially true in his own playing and has found that “frequency is more important than time”¹⁶ spent. He would much rather spend an hour each day than eight hours once a week. According to Gerald Klickstein’s book, *The Musician’s Way*, “your artistic evolution is best served by steady, judicious practice.”¹⁷ This seems like common sense, but busy and inconsistent schedules often lead down other paths. Carmenates stresses the importance of this simple concept to his students every semester through an annual experiment:

I have a freshman percussion class, so every year I take a Ford Etude or a Goldenberg Etude and split the class in half. I say, ‘OK, Group A, you have one three hour practice session to learn it.’ For Group B, I’ll split the week up and say, ‘You have forty-five minutes every day to learn it before class next week, starting tomorrow.’ And invariably it always works out that the group that did forty-five minutes every day instead of three hours in one day learns it better. Even though they’ve done it in the same amount of time. You either use it or lose it.”¹⁶

¹⁵ Michael Burritt, personal interview, 20 Jan. 2013.

¹⁶ Omar Carmenates, personal interview, 12 Nov. 2011.

¹⁷ Gerald Klickstein, *The Musician’s Way: A Guide to Practice, Performance, and Wellness*, (New York, NY: Oxford University Press, 2009), 11.

~ Order of Learning ~

Music unfolds chronologically in a performance, and the order in which the composer places various musical elements like themes, cadences, and dynamics play a vital role in the development and flow of the piece. Although the performer would never dare stray from the prescribed order of events in a performance, he does have complete freedom in the practice rooms to learn the piece in any order.

It might be assumed that the most logical and efficient place to start would be the beginning, but less than a third of the percussionists interviewed learn music in this manner. Instead, some learn music back to front, starting at the end of the piece and working their way back to the beginning. Others take a preemptive approach by starting with the hardest material first. One of those interviewed had a totally unique method. He approached it from a purely analytical perspective, learning music based on the formal structure.

Learning Beginning to End

Learning a piece of music from beginning to end is the most traditional method. In many ways, it seems the most natural since most things in everyday life are also chronologically organized. Further, whenever a piece of music is performed, listened to, or studied, it is typically done in this order. For these reasons, learning music chronologically seems to make perfect sense.

Steven Schick uses this method because he finds that “by learning a piece in order, the natural dramatic flow of the music from beginning to end can be experienced in very slow motion during the learning process.” Learning material in the correct order emphasizes the occurrence of events and helps develop an understanding of how the composition unfolds thematically. Unlike many of the musicians interviewed, Schick does not “gloss over the whole piece and then go back and work it up again . . . [He never even] sight-reads ahead to see what things will sound like.”¹⁸ Instead, he simply starts at the beginning and learns one bar at a time from beginning to end. Payton MacDonald also uses this method, but cautions that after learning each bar in isolation, putting them together can present difficulties. “It is a new rewiring of the brain when you put them together and it must be slowed down again.”¹⁹

A regular process should be used to piece together small sections of learned material. Michael Burritt always goes back a “passage or a phrase or two before the new material and [tries] to add that to the stuff previously learned.” Burritt uses this system of contextual review throughout the practice session, as well at the beginning and end of each day. “At the end of the session, I’ll go back and go to the beginning of the piece . . . and make sure that I can [bring the new stuff I’ve learned] into the mix. At the beginning of every successive session, I go back [and play all the way through] to build continuity.”²⁰

¹⁸ Steven Schick, *The Percussionist's Art: Same Bed, Different Dreams*, (Rochester, NY: University of Rochester Press, 2006), 121.

¹⁹ Payton MacDonald, personal interview, 3 Nov. 2012.

²⁰ Michael Burritt, personal interview, 20 Jan. 2013.

Returning to the beginning of the piece and playing through all of the material learned up to that point ensures that the music learned yesterday or last week is retained and applied contextually. This repetition establishes a level of continuity, which results in a “weird phenomenon . . . the piece becomes smaller.” In the beginning, the piece seems long and intricate with hundreds of contrasting ideas and subtle nuances. However, at some point, it starts to shrink in size. Suddenly it is perceived as a much shorter and simpler composition. Burritt views this “as a sign that you are getting close.”²¹ This change in perception indicates a better grasp and understanding of the piece and a transition from simply recalling a string of pieced together sections to one continuous stream of thought.

Learning End to Beginning

If musicians are asked to choose one measure in a piece that they know the best and feel most comfortable playing, many would choose bar number one. Why is that? Is it because it's been known the longest? Is it because it was the starting point for most practice sessions? Or is it how we aurally identify the composition? Most likely all three are contributing factors. This simple example often represents the musician's attitude of the piece as a whole. The beginning is usually strong, comfortable, and familiar. But typically, the musician's accuracy, confidence, and comfort gradually diminish as the piece progresses. Is that how the performance should end? Shouldn't the last thing played be the most confident and memorable?

²¹ Michael Burritt, personal interview, 20 Jan. 2013.

Learning a piece from the end and working backwards towards the beginning can help solve these problem and often fixes other unrelated issues. Paul Rennick is a big proponent of this method. He uses it in his own playing as well as with the ensembles he directs. He believes this method is successful due to the simple fact that “you are always approaching more familiar music.” Learning music from beginning to end, you are “constantly departing music that you have prepared more, [moving] into the unknown and the less familiar.” Rennick points out that this typically occurs because “you start at the first measure and go until you make a mistake, then you go back to the first measure [and do it again].” Another benefit to this method is that it results in “a more natural direction”²² of the music. Every time a new section or phrase is learned, the player understands where it is leading and how it will be resolved. This enables the player to make informed musical decisions from the start.

Eric Willie uses a similar method in his own playing and with his percussion ensembles. Willie adds a slight variation by starting at the hardest section, working to the end, and then working backwards to the beginning. Coincidentally, this usually results in starting near the end anyway, since it is common for compositions to gradually gain complexity and difficulty towards the end as themes are developed and expanded upon. Willie has found that when this method is correctly implemented, his endings are “always strong.”²³

²² Paul Rennick, personal interview, 12 Nov. 2011.

²³ Eric Willie, personal interview, 11 Nov. 2011.

This method of starting at the end and working backwards doesn't always have to be applied to the piece as a whole. Robert Schietroma "practice[s] phrases from the end to the beginning"²⁴ and believes it establishes increased security as he progresses through the piece.

Learning Hardest Sections First

All musicians have experienced moments before or during a performance when they ask themselves, 'I wonder how that spot is going to go today?' Every piece of music has certain licks or passages that are significantly more difficult than the rest of the work. Whether these challenges are for technical or musical reasons, they are usually evident early on in the learning process.

According to Christopher Deane, "these spots aren't hard, they are just time consuming."²⁵ Preparation is always a race against time, which is why so many of the percussionists interviewed start learning the hardest material first. Brian Mason compares this process to cooking a meal. "Whatever is going to take the longest to cook, I start first. So at the end, everything is hot at the same time."²⁶

Joshua Smith often finds that he spends eighty percent of his time working on a few isolated sections and the remaining twenty percent of his time on the rest of the piece. Therefore he always learns the "hard stuff first, knowing that [he'll] get the easy stuff

²⁴ Robert Schietroma, personal interview, 3 Nov. 2012.

²⁵ Christopher Deane, personal interview, 12 Nov. 2010.

²⁶ Brian Mason, personal interview, 10 Mar. 2013.

later on.” By front-loading the hardest material, “I’m not taxing myself at the end when it gets down to the eleventh hour and I have to perform it,”²⁷ said Smith.

Andy Harnsberger also learns music in this fashion but is much more systematic in his approach. After examining the shape and form of the piece, Harnsberger divides the piece into sections according to difficulty. He then labels these various sections using red, yellow, and green Post-it Notes. “Red sections are the ones that I have to start working on now because it is going to take me six weeks to get it. Yellow is stuff that isn’t going to take me as long, and green is stuff that I can already play and don’t need to work on”²⁸ This simple labeling process prioritizes the material and provides a clear approach to learning the piece. It can be difficult to stay disciplined and avoid gravitating towards the easier material, however, this method provides clear visual reminders of what should be worked on and is a rewarding way to track progress.

Since this method requires learning the piece out of order, it’s sometimes easy to neglect practicing the transitions between sections. Brian Zator uses a “macro-micro-macro approach”²⁹ to address this issue. Starting on the macro level, Zator first identifies all of the hardest ‘red’ spots. He then jumps down to the micro level and proceeds to learn all the difficult passages. He then moves back to the macro level, learning all the transitions into and out of the ‘red’ passages. This process is then repeated using the ‘yellow’ sections. If this method is done properly, by the time the ‘green’ sections are incorporated, the entire piece, including transitions, should be learned.

²⁷ Joshua Smith, personal interview, 11 Nov. 2011.

²⁸ Andy Harnsberger, personal interview, 2 Nov. 2012.

²⁹ Brian Zator, personal interview, 2 Nov. 2012.

Matthew Duvall also learns music starting with the hardest material first. However, he does it for entirely different reasons. “Often I’m working on material that is pretty new and so I am looking at the part to find problematic material that I need to go back to the composer to work out.”³⁰

Learning Based on Form

One percussionist interviewed, Thomas Burritt, learns new music based on the formal construction of the piece. His explanation of this process and reasoning behind it is compelling and it’s surprising that not more of the musicians interviewed use this method.

As discussed previously, understanding the formal structure of a piece can prove extremely helpful when first learning it. Understanding the form and function of the notes results in a much more clear and purposeful portrayal of the composition. For this reason, a formal analysis is Thomas Burritt’s first step when learning a new piece of music. This “really helps your interpretation . . . because you understand the work from a very general standpoint.” It also provides a “bird’s eye view of what’s going to be difficult or less difficult.”³¹ Instead of just learning notes on a page, this method highlights how the notes fit into the larger context. The human brain learns better when it can recognize patterns. Edwin Gordon supports this in his book, *Learning Sequences in Music*. “Patterns, not

³⁰ Matthew Duvall, personal interview, 1 Mar. 2013.

³¹ Thomas Burritt, personal interview, 3 Nov. 2012.

isolated sounds, are the compelling font of content and context in music.” Much like how “in language, letters are grouped to form words . . . [to give] linguistic syntax . . . individual pitches are grouped into tonal patterns [to] provide the basis for context.”³²

According to Thomas Burritt, understanding how thematic material is transposed, developed, and altered results in the quickest absorption. Burritt explained that when learning *Night Rhapsody* by John Serry, his formal analysis revealed a sonata form. As a result, he learned the development section last to aid in his understanding of how the themes and tonal areas were being manipulated and developed.

When learning a new piece of music, there are few things more helpful than the discovery of repetition. Learning a piece according to its formal elements provides the earliest detection of such patterns and may show relationships between seemingly dissimilar material.

As stated above, there are many different approaches to learning new music and each has its benefits. The learning style of the individual combined with the challenges unique to each piece, may influence which method should be chosen. Each person interviewed believed strongly in his/her method for very specific reasons and this diversity provides musicians with plenty of options to explore.

³² Edwin E. Gordon, *Learning Sequences in Music*, (Chicago, IL: GIA Publications, 1993), 221.

~ Learning Philosophies and Approaches ~

Learn Correctly

The order in which a new piece of music is learned is only one aspect of the learning process. The musicians interviewed had widely varying philosophies, idiosyncrasies, and approaches, and did not have as many commonalities as might be expected. However, one trend that did emerge in nearly every interview was the strong inclination to learn the material correctly the first time.

Music is a form of emotional expression that provides musicians an opportunity to make each performance a one-of-a-kind experience. Achieving a unique voice is the result of thousands of decisions made primarily during the preparation leading up to the performance. Some of those decisions can be made spontaneously during the performance, but most are pre-meditated and carefully considered beforehand.

With percussion instruments, decisions concerning stickings are routinely made. Sticking choices are very carefully considered and are influenced by musical elements such as articulation and style and physical elements such as technique and set-ups.

When playing a piece that requires multiple percussion instruments, most set-ups are not fixed or pre-determined. Rather, there is usually complete freedom in the way the

instruments are arranged. Matthew Duvall said he finds it crucial to determine his set-up early in the process, so his stickings can be selected and solidified from day one.

Like fingerings on a woodwind, brass or string instrument, stickings play a huge role in the muscle memory of a passage. For this reason, it is so important to pick the ‘right’ sticking the first time the piece is learned, so it does not have to be un-learned later. When learning a new piece, Julie Licata always spends a significant amount of time determining the best stickings. Choosing the right sticking the first time allows her to do it “the same way every time,” building “regular muscle memory . . . from the very first steps of learning the music.”³³ Omar Carmenates said he believes that “with marimba, muscle memory is super important.” Muscle memory on the marimba may determine accuracy more than with any other percussion instrument. As a result, it is extremely important “to inform those neuron pathways the right way the first time. Otherwise it’s harder to undo.”³⁴

William Moersch believes that simply training the body to play the piece correctly the first time is not enough. The player must train their body to do it correctly *every* time. Musicians should “play everything within all of the musical parameters from the very first day, except for the tempo, and keep drilling the idea of always playing it correctly.” Moersch’s concept of mistake free practice is purely dependent upon tempo and the performer might not even “play at a performance tempo until the performance,” explains Moersch. Moersch believes that if the player always strives to play it perfectly, with zero

³³ Julie Licata, personal interview, 12 Nov. 2011.

³⁴ Omar Carmenates, personal interview, 12 Nov. 2011.

mistakes, the body becomes trained to only play it one way, the correct way. Mistakes in performances are unlikely because the body doesn't know how to play it any differently.

*When the time comes to finally play the performance, there must be hundreds of correct versions of the piece already filed away in the performer's physical and mental self. And there should only be one version there, in the file, in the system, and that's the one that's going to happen. And the only question is, "How fast would you like it?"*³⁵

Barry Green, author of *The Mastery of Music*, agrees with Moersch stating that "if you play a passage with the same mistake five times, then once with the mistake corrected, you've just practiced your error five times and the correct version once,"³⁶ leaving the body confused as which version is correct. Paul Rennick has a similar philosophy called the "perfect practice method." He describes it as altering the tempo so that you "allow yourself to sound good all the time."

*Given a slow enough tempo, you can learn some really difficult music, and if you give yourself enough time to process in your brain, you can play some really complicated stuff accurately. Then you just become more efficient about your thinking between the notes.*³⁷

Both of these methods emphasize doing correct repetitions one hundred percent of the time. In order to achieve this, the tempo must be altered drastically, at least in the beginning. It takes tremendous discipline and patience to stick with this method and see it through to the end but Andy Harnsberger constantly reminds his students that "slower is

³⁵ William Moersch, personal interview, 12 Nov. 2010.

³⁶ Barry Green, *The Mastery of Music: Ten Pathways to True Artistry*, (New York, NY: Broadway Books, 2003), 81.

³⁷ Paul Rennick, personal interview, 12 Nov. 2011.

faster . . . Take it slower and learn it right the first time so that six weeks from now you don't have to unlearn something that you've been playing wrong for a long time."³⁸

When using this 'perfect practice method,' how should the tempo be determined? John Tafoya challenges himself to take passages "ten times slower than they need be." He believes that "once you've done it five-hundred times slow, you can do it at almost any tempo."³⁹ Omar Carmenates' rule is that it must be slow enough to successfully play "ten times [in a row.]"⁴⁰ Practicing at tremendously slow tempos can be extremely difficult because most people's natural tendency is to speed up once they have played it correctly a few times. Payton MacDonald has found that using a metronome keeps him honest.

*My tendency, which I find is true for everyone else, is that I always want to go too fast. I can hear what it is supposed to sound like but my ears and my mind and body are not all in alignment for it to happen. I don't use the metronome for time sake but to keep me slow. It is hard, slow and painstaking work.*⁴¹

Practicing slow enough to never make mistakes, results in slower progress than most people are use to and it can feel as if little or no progress is being made. To help alleviate this frustration Michael Burritt keeps careful records of his metronome markings. This enables him to look back and say "Ok, I was doing this on this date,"⁴² giving him a tangible proof of his progress.

³⁸ Andy Harnsberger, personal interview, 2 Nov. 2012.

³⁹ John Tafoya, personal interview, 13 Nov. 2010.

⁴⁰ Omar Carmenates, personal interview, 12 Nov. 2011.

⁴¹ Payton MacDonald, personal interview, 3 Nov. 2012.

⁴² Michael Burritt, personal interview, 20 Jan. 2013.

Rather than using a metronome to track his progress, Matthew Duvall uses hash marks. His system is based on pure repetition. “No matter how easy it is, I’ll do it ten times and I keep track with hash marks.” In addition to engraining the correct muscle memory, Duvall has discovered that this method accomplishes other tasks. Repeating every passage ten times “eliminates the ‘what should I do next?’ question,” keeping him extremely focused, and often revealing small details that would have otherwise been overlooked.

Redundancy gives your mind a chance to focus on a lot of different aspects of that moment, not just the notes. Usually, we play it and say, “These are the right notes” and then move on. But once you have the right notes, that is just the jumping off point for, “Oh, now that I’ve got the right notes I don’t need to pay attention to it and now I can pay attention to the sound. Or I can start paying attention to my sticking. Does it really work? Does it make sense for what is coming up next?”

If a section is only played three or four times, any potential issues don’t have “a chance to sink in or expose themselves.”⁴³

Although these extremely slow and high volume methods of learning a new piece of music guarantee incredible accuracy, they can also result in some negative characteristics. These methods place nearly one hundred percent of the emphasis on note accuracy, but don’t always account for performance elements such as phrasing, dynamics, timbre, movement, etc. For this reason, James Campbell has taken this same concept and added the element of performance.

I’m moving physically the same way at half tempo as I would at real tempo. So I’m trying to make the same gestures, mallet changes, and

⁴³ Matthew Duvall, personal interview, 1 Mar. 2013.

*counting the rests. I'm trying to perform it even if it is half tempo. I'm physically and mentally always in performance mode. I'm not really thinking of it as practice but as performing at half tempo.*⁴⁴

Practicing extremely slowly, while also combining all of the elements of performance, makes a seamless journey from the first practice session to the performance possible. John Parks compares this process to opening a combination lock: “The first time you open up a lock, you are really slow and careful about it to make sure you do it right. As you continue to do it, you get faster and faster, and eventually get to a point where you don’t even think about it. You just go up, do it, and it opens.”⁴⁵

According to Don Greene in his book, *Performance Success*, developing a passage of music to this same degree, where it can be executed effortlessly “using kinesthetic abilities and muscle memory [will] dramatically [increase your] ability to focus in performances.”⁴⁶ Repetition is an extremely powerful practice tool and if done correctly, has long lasting effects. Using Parks’ analogy, everyone experiences moments in everyday life where the ‘lock combination’ is momentarily forgotten. Then suddenly, without a conscious thought, muscle memory kicks in and it all comes back. Muscle memory like this is incredibly useful in countless ways, but can be equally debilitating if the engrained material is incorrect. Correct input is essential.

Forcing oneself to learn new music at an extremely slow tempo takes tremendous patience, and having the discipline to remain at that tempo to ensure correct repetitions

⁴⁴ James Campbell, personal interview, 25 Mar. 2013.

⁴⁵ John Parks, personal interview, 12 Nov. 2011.

⁴⁶ Don Greene, *Performance Success: Performing Your Best Under Pressure*, (New York, NY: Broude, 1978), 74.

every time is even more demanding. Despite that, many percussionists interviewed swear by this process. Jason Baker is among them, saying, “I really believe in learning the entire piece slow first and then bringing the overall tempo up.”⁴⁷

While many heavily praise this method, not all those interviewed learn music in this fashion. “I try to get it to tempo as quickly as I can,” said Mark Ford. While he cautions that this is not always possible when faced with extremely difficult passages, in all other circumstances, Ford believes that getting up to tempo as fast as possible is essential to understanding how to play the piece. You must “get it in the style,” said Ford. His contrasting approach also affects how the piece progresses. With an extremely slow ‘perfect practice method,’ the entire piece is worked up simultaneously. This means that along the way, a performance-quality run-through could theoretically be done, but at a reduced tempo. Mark Ford’s approach is entirely different.

*I like to grab a small chunk of music because my time is limited. I take the premise that if I can learn eight bars, in a manner that if the concert was tonight, I could play those eight bars. I'm going to try and make that first phrase at the right tempo, articulation, dynamics, and sticking. I try to fix everything. It might take thirty minutes, or longer, but the point is I don't have time to rough out a piece and then go back and do those things again. I do them right from the beginning. For me, I feel like I learn the piece quicker that way because I'm dealing with it artistically right from the start, but with small amounts of material: one phrase, four bars, eight bars, or sometimes one bar if it's a really crazy piece. It depends on the music.*⁴⁸

⁴⁷ Jason Baker, personal interview, 11 Nov. 2011.

⁴⁸ Mark Ford, personal interview, 12 Nov. 2010.

Brian Zator also avoids learning pieces extremely slowly. He tries to play it the first time “as close to tempo”⁴⁹ as possible because he feels he can learn the piece quicker that way. Emil Richards completes the ‘tempo spectrum’ by *always* learning music at tempo. “I try not to slow anything down. I like to play everything where it’s supposed to be, otherwise it takes too long to get there.” Despite that, Emil Richards is widely viewed as one of the most accurate mallet players in history. As a ‘first call’ in the Hollywood film industry, Richards has performed on hundreds of movie sound tracks, commercials, and albums. Obviously, his ability to read through new music at tempo takes a tremendous skill set that most musicians have not yet achieved. The origin of his unique learning method may be a result of his career path, explained Richards: “We don’t see music before we get to a session. At 9am the downbeat comes and we’re playing (recording). So you have to be right on top of it. Trying to slow down and go thru that whole process would slow you down like crazy.”⁵⁰

Eliminate Certain Musical Elements

As with most philosophies and schools of thought, there are contrasting views and methods that are equally compelling and insightful. Christopher Deane’s method, “divide and conquer,” is in direct contrast to the ‘perfect practice methods’ described above. Rather than simplifying the music by means of tempo adjustment, Deane’s process breaks the passage down through the separation of musical elements. Deane recalled a time when he was working on a “wicked piece by Boulez.” He started by first

⁴⁹ Brian Zator, personal interview, 2 Nov. 2012.

⁵⁰ Emil Richards, personal interview, 3 Nov. 2012.

playing only “the pitches pictured on the page.” By completely ignoring all the rhythms, he was able to get a “sense of the combinations and the colors.” After conquering that single aspect of the divided material, Deane turned his focus to the rhythms, which he described as “rhythmically strange in a wonderfully way.” Learning the rhythms on a practice pad, absent from the notes, allowed him to master it much quicker than learning them in tandem with a pitch. Next, Deane combined the pitches with the rhythms. Each rhythm was assigned to a specific note and vice versa in a chronological matching of the first note and first rhythm through the last note and last rhythm. As a last step, the dynamics and phrasing were added.⁵¹ Barry Green shares a similar philosophy in his book, *The Mastery of Music*, stating that when learning new music, it’s best to “focus in on one aspect of the music at a time - and practice just that one aspect.”⁵²

Gordon Stout also uses this process of “ignoring musical elements” when learning a new piece of music. Stout refers to this method as the “Vida Chenoweth system of practice,” whose attitude was “if you can’t play the notes perfectly, why are you worrying about dynamics.” Like Deane, Stout starts by separating the notes from rhythms and then adds the dynamics last. Stout gave the following example by describing how he learned *Autumn Island* by Roger Reynolds: “I first learned just pitches with no rhythm whatsoever. Just note, note, note, . . . one note at a time. And then I learned the rhythms away from the marimba with no pitch, and then gradually put them back together.” Although Stout always ignores the “dynamics and phrasing from the beginning,” the degree to which he separates the notes from the rhythms depends on the complexity of

⁵¹ Christopher Deane, personal interview, 12 Nov. 2010.

⁵² Barry Green, *The Mastery of Music: Ten Pathways to True Artistry*, (New York, NY: Broadway Books, 2003), 82.

the piece. “I break things down as far as I need to, to be able to deal with it and then put them back together.”⁵³

Kevin Bobo also believes in breaking down and separating the musical elements when learning a piece. However he does it entirely differently than the others mentioned. Instead of separating notes, rhythms, and dynamics, he separates his left hand from his right hand. Essentially it is the same principle, separating the music into individual components and then adding them back together once they are individually mastered. Bobo’s learning process occurs in three steps: learn the left hand from beginning to end; learn the right hand from beginning to end; then add both hands together from beginning to end.⁵⁴

~ Memorization ~

Depending on the individual, music can be learned in many different ways, each with its own benefits. Once a piece is perfected and ready to be played, whether alone in a studio or in front of thousands on a concert stage, one decision still remains. Will it be played from memory?

The topic of memorization raises many other questions. Does it really matter one way or the other? Shouldn’t the performer do whatever he or she is most comfortable with or

⁵³ Gordon Stout, personal interview, 3 Nov. 2012.

⁵⁴ Kevin Bobo, personal interview, 13 Nov. 2010.

does it affect how the audience perceives the performance? Does it affect how the performer interprets the music?

To answer these questions, the instrument itself must be considered. “Percussion is such a visual instrument,”⁵⁵ points out Brian Nozny. Unlike other instruments, every single note played can be seen visually. Regardless of the instrument, an implement must be used to create the sound and the velocity and distance from which the instrument is struck is proportionally related. As a result, a percussionist’s movements are directly related to the sound created. This distinctive characteristic makes percussion performances uniquely visual.

Paul Rennick’s experience with the production *Blast!* helps illustrate this characteristic. For a number of years, Rennick wrote the show’s music and rehearsed the percussion section. He found it amazing how little time they spent working on musical elements such as “phrasing, shape, and direction.” Instead, almost all of the rehearsal time focused on “performance, stage presence, and engaging the audience.”⁵⁶

Seeing a live performance is much different than listening to an audio recording. The audience is there to experience it first-hand. In the words of Anders Holdar, they want to “see the interaction” between the performers and the music. “They are not there for you to play the right notes. They are there to see you and how you bring out your character.”⁵⁷

⁵⁵ Brian Nozny, personal interview, 30 May 2012.

⁵⁶ Paul Rennick, personal interview, 12 Nov. 2011.

⁵⁷ Anders Holdar, personal interview, 28 Oct. 2011.

In that way, the music is secondary to the experience. The visual aspects of performance largely influence the audience's experience and perception

For this exact reason, John Parks is a strong believer in performing from memory. He “very, very rarely” performs with the music in front of him because he believes it creates a visual “barrier between the audience”⁵⁸ and himself. Eric Willie agrees with Parks and believes that by removing the visual element of the music stand, you are better able to communicate with the audience.

There are times when memorization is not possible due to time constraints, length of the piece, or other difficulties. When this is the case, the presence of the music can be minimized to lessen this sense of a barrier. John Lane admits that he is not a great memorizer, but does everything he can to “deemphasize the music” and avoid “a giant poster board” confronting the audience. He finds “subtle ways of putting the music here or there”⁵⁹ by reducing the score size and not always using a music stand.

In addition to the advantages memorization has from the audience's perspective, memorizing a piece of music has benefits for the performer. Christopher Deane believes that when a piece is performed from memory, it “becomes part of your soul.” The process of storing data into the brain ensures that the “music makes sense” and that the player fully “understands each note.”⁶⁰ This level of familiarity makes Blake Tyson “feel more

⁵⁸ John Parks, personal interview, 12 Nov. 2011.

⁵⁹ John Lane, personal interview, 12 Nov. 2011.

⁶⁰ Christopher Deane, personal interview, 12 Nov. 2010.

connected,” letting the music “come out” of him “instead of the extra process of taking it in and then spitting it back out.”⁶¹

When reading music, the player must direct some of their attention to technically converting what is on the page to their instrument. Eric Willie feels that playing from memory “allows you to focus on the music.”⁶² When one is totally focused on the music, and not worried about anything else, the results are typically favorable. Joshua Smith finds that “the stuff that I’ve memorized, I’ve always performed consistently better than the stuff I’m reading off the music.”⁶³ Matthew Duvall also finds this to be true and uses memorization as a “way of raising the caliber.”⁶⁴ However, playing at the highest level doesn’t always require memorization. As mentioned before, Emil Richards is the anomaly in that his career has been built around playing ‘studio perfect’ run-throughs, yet he very rarely memorizes music because “it’s very difficult” for him to do. “I’ve let my memory skills go, for just knowing that it’s in front of me and I can do it easily.”⁶⁵

Memorization doesn’t just help in performance situations. Frederica Macarez believes that it makes him a better teacher as well. When he is listening to a student play through an etude that he has memorized, he doesn’t have to read along with them. Instead he can just focus on listening. By already knowing “everything that is written, accents, dynamic, etc.,” it is much easier for him to hear their subtle mistakes.

⁶¹ Blake Tyson, personal interview, 3 Nov. 2012.

⁶² Eric Willie, personal interview, 11 Nov. 2011.

⁶³ Joshua Smith, personal interview, 11 Nov. 2011.

⁶⁴ Matthew Duvall, personal interview, 1 Mar. 2013.

⁶⁵ Emil Richards, personal interview, 3 Nov. 2012.

Playing from memory doesn't always imply that the performer plays without the music. Frederic Macarez rarely performs without the music, "but of course it's memorized . . . and I could play without it."⁶⁶ He uses the part for support since there are a lot of things to manage during a performance. Not having to rely on memory gives him one less thing to focus on. Steven Schick also performs with a score, on occasion, even though "the music is memorized." Unlike Macarez, he does not use it for support, but rather for artistic inspiration. Schick explained that having the "document" and being able to refer to "that look on the page" gives him something "to respond to"⁶⁷ during his performance.

While some musicians like Schick memorize all the music they play, most pick and choose what they memorize based on the instrument. For instance, most of the percussionists interviewed typically play mallet music from memory, due to the fact that it requires extreme accuracy. It is much more difficult to hit the right notes if your eyes are not looking directly at the instrument. Steel pan is the same way. Not only does the steel pan have small targets, but the unique arrangement of notes requires an extreme level of familiarity. When it comes to single surface instruments, like snare drum and timpani, the targets are much larger, providing a much greater margin for error.

Partial Memorization

Memorization of a piece is not necessarily all or nothing. Most of the time musicians decide what parts or passages they will memorize based on context or difficulty of the

⁶⁶ Frederic Macarez, personal interview, 27 Oct. 2012.

⁶⁷ Steven Schick, personal interview, 31 Oct. 2012.

music. Jason Nicholson is one who said he uses partial memorization for harder passages that require extreme accuracy. For example, when playing cans in a multi-percussion piece, he memorizes that section to ensure he strikes “the cans in a certain area to get the right timbre.”⁶⁸

Playing in an ensemble also creates challenges that frequently require memorization of sections of a piece. Joakim Anterot for example, always memorizes the places where he must “look at the conductor” for cues or tempo changes. If you “get stuck in your part,” playing or attacking with the ensemble becomes extremely difficult. When playing only parts of a piece from memory, it is crucial to keep track where the reading starts and stops to avoid getting lost when moving ones eyes from the page to the conductor or instrument. Anterot makes sure he knows exactly which parts he is going to play from memory so that he doesn’t “hesitate [or] blank out.” He tries to always keep “one eye in the music”⁶⁹ so that he doesn’t get lost.

To help with this, these spots can be either marked in the music or the parts can be altered. Matthew Duvall always creates “reductions of the parts.” He either creates “skeletal hand written versions . . . [or] cuts and pastes parts to eliminate sections that are memorized.”⁷⁰

There are also times when memorization should be avoided altogether. Paul Rennick is opposed to memorizing music in ensemble situations because there is “more risk there

⁶⁸ Jason Nicholson, personal interview, 2 Nov. 2012.

⁶⁹ Joakim Anterot, personal interview, 28 Oct. 2011.

⁷⁰ Matthew Duvall, personal interview, 1 Mar. 2013.

that somebody else will have a memory slip” and if you aren’t looking at the music when it happens, it’s difficult to recover. The “more people that are involved, the more variables,” and if something goes wrong, “you can reference the music to get out of that situation.”⁷¹

~ Memorization Methods ~

When memorization is preferred or required, what is the best to go about it? Kevin Bobo has found that sometimes you don’t have to even try, it will “happen naturally.”⁷² James Campbell echoed that thought, saying, “the nature of playing it over and over again”⁷³ leads to memorization. While Matthew Duvall finds the same thing to be true, but warns that sometimes you have to work at “putting all those small, memorized chunks together into a memorized completed whole.”⁷⁴ Andy Harnsberger is another who finds that continuously reading a piece at the instrument results in organic memorization. The act of seeing the music over and over on the page eventually results in it being completely memorized, while also reinforcing his reading skills.

In contrast to these ‘organic’ methods, Steven Schick will “never play a piece from the score and then gradually convert it to memory . . . My process involves memorizing as the very first step in the learning process.” Although Schick takes a rather simple approach to memorizing a piece, “I memorize the first bar, then the second and third and

⁷¹ Paul Rennick, personal interview, 12 Nov. 2011.

⁷² Kevin Bobo, personal interview, 13 Nov. 2010.

⁷³ James Campbell, personal interview, 25 Mar. 2013.

⁷⁴ Matthew Duvall, personal interview, 1 Mar. 2013.

so on until I have memorized the entire piece,” he has a very systematic and regimented method for committing material to memory. Below is Schick’s memorization method as described in his book, *The Percussionist’s Art*.

1. *Play passage at the instrument while looking at the music.*
2. *Sing the passage in one breath with eyes closed.*
3. *Visualize the passage as vividly as possible while standing away from the instrument.*
4. *Play the passage at the instrument from memory.*
5. *Proceed to the next phrase, using the same process, then add them together.*
6. *Combine multiple memorized bars to form a ‘chunk.’*
7. *Combine multiple chunks to form a ‘memory packet.’ Memory packets should be one or two musical phrases, depending on the difficulty of the piece.*

Figure 17: Steven Schick’s method for learning and memorizing a new piece of music.⁷⁵

In steps six and seven, Schick uses the terms ‘chunks’ and ‘memory packets.’ Schick defines ‘chunks’ as “complex material [that has been] broken down and bundled into manageable units.” ‘Chunks’ allow the player “to store a few seconds worth of information in a very short-term memory.” The lengths of the ‘chunks’ vary depending on the individual and the difficulty of the material. ‘Memory packets’ are simply ‘multiple chunks’ combined together, usually lasting a few bars in length. Linking multiple ‘chunks’ together is done through a process called triggering. Triggers are mental cues that are initiated at the end of one packet designed to cue the beginning of the next, essentially forming a series of mental transitions between ‘chunks.’

⁷⁵ Steven Schick, *The Percussionist's Art: Same Bed, Different Dreams*, (Rochester, NY: University of Rochester Press, 2006), 121.

Schick finds that the hardest aspect of learning a new piece of music is “juggling passages at different stages of development.” As soon as a memory packet is learned and tested, the learning of a new memory packet begins and the first memory packet begins to decay. He tries to solve this problem by distributing the intake, rehearsal, and testing cycle over a four to six day rotation. This day-to-day routine for learning a new piece of music uses the seven step process, discussed previously, and is based on a three step cycle: intake, rehearsal, and testing.

Day 1

Memory Packet A: Intake
Memory Packet A: Rehearsal
Memory Packet B: Intake
Memory Packet B: Rehearsal
Memory Packet A: Rehearsal
Memory Packet A: Testing

Day 2

Memory Packet A: Rehearsal
Memory Packet A: Testing
Memory Packet B: Rehearsal
Memory Packet B: Testing
Memory Packet C: Intake
Memory Packet C: Rehearsal
Memory Packet A: Testing

Day 3

Memory Packet B: Rehearsal
Memory Packet A: Rehearsal
Memory Packet C: Rehearsal
Memory Packet D: Intake
Memory Packet D: Rehearsal
Memory Packet A: Testing
Memory Packet B: Testing
Memory Packet C: Testing

Day 4

Memory Packet D: Rehearsal
Memory Packet D: Testing
Memory Packet C: Rehearsal
Memory Packet C: Testing
Memory Packet A-C: Testing
Memory Packet E: Intake
Memory Packet E: Rehearsal

Figure 18: Steven Schick’s intake/rehearsal/testing practice schedule.⁷⁵

When committing a lot of data to memory, it's easy to get memory packets or chunks mixed up, or forget their order altogether. This becomes increasingly difficult as more information is added but creating a mental timeline can be an effective tool.

Identify Structure to Help Memorization

“In general I trust my bodily memory, especially if the physical reflexes of memory are well supported by appropriate mental structures.”⁷⁵

– Steven Schick

One method for remembering the order of memory packets is to perform a theoretical analysis so that the formal function of each section is fully understood. The realization of how each memory packet fits into the larger context creates another layer of memorization.

In Geoffrey Colvin's book, *Talent is Overrated*, he compares this idea to knowing the “difference between letters and words.”

Imagine that you knew all the letters of the alphabet but had no idea that they could be assembled into words. Then suppose you are shown for five seconds in arrangement of the letters - let's say 'lexicographer' - and were asked to remember the letters in the correct order. Since you would see just a bunch of letters, you'd have a hard time remembering more than the first seven or so. But in reality you recognize those letters as a word you're familiar with - and a thirteen letter word at that - so you can easily remember all those letters in the correct order.⁷⁶

⁷⁶ Geoff Colvin, *Talent is overrated: What really separates world-class performers from everybody else*, (New York, NY: Portfolio Hardcover, 2008), 99.

Joshua Smith uses this technique and feels that when you “zoom out and get the big picture,”⁷⁷ it simplifies the memorization process.

Sometimes pieces don’t lend themselves well to a harmonic or formal analysis, so other associations must be used to create a framework. Payton MacDonald tries to build “a house” in his head based on the piece. He explains the “architecture might be partly analytical, but sometimes it is partly poetic. So a certain section will remind me of beautiful woman or a sunset or something. It might be corny but it is something you can’t even put into words.”⁷⁸

Barry Green describes a similar technique in his book, *The Inner Game of Music*, which he calls “using visualization to create your own movie.” He advises making up “imaginary movies in your head. You can do this by creating a story or simply by allowing yourself to ‘see’ images, colors, or scenes that the music suggests to you.”⁷⁹

Omar Carmenates also organizes his ‘chunks’ based on seemingly unrelated ideas. Instead of using the house as an architectural metaphor, Carmenates applies this idea more literally. He created this method after seeing a television show about a man who had the ability to remember fifty strangers’ names. This man’s method involved creating a chronological story from the unique characteristics of each of the fifty strangers.

⁷⁷ Joshua Smith, personal interview, 11 Nov. 2011.

⁷⁸ Payton MacDonald, personal interview, 3 Nov. 2012.

⁷⁹ Barry Green, and W. Timothy Gallwey, *The Inner Game of Music*, (Garden City, NY: Anchor Press/Doubleday, 1986), 153.

Forming an association between people's characteristics and a narrative enabled him to remember and recall all fifty names.

Carmenates uses this same concept but assigns sections of music to parts of his house or places that he knows well. "All you have to do is create a story in your head. I'm in my kitchen, then I go to my driveway, then I go to my garage," said Carmenates. Using this method, he claims that you can "play the piece backwards, you can play the piece sideways, you can jump around because all you have to do is think of that trigger and that triggers that whole section."⁸⁰

Creating associations to "knowledge that is already well established in the memory" is called "deep encoding." According to *Principles of Neural Science*, by Eric Kandel, 'deep encoding' is the strongest form of memory. Geoff Colvin also heavily supports this concept. He states that many studies have confirmed "apparently average people can achieve extraordinary memory ability by developing their own retrieval structures."⁸¹

Creating word and rhyme associations can also aid in memorization. Christopher Deane has used rhymes to memorize passages of music. "Russell Peck likes it when I play on the drums, when I play the Peck, boogie down, 'till I get my check playing timpani."⁸² After creating this little rhyme, Deane could instantly remember it and is still able to

⁸⁰ Omar Carmenates, personal interview, 12 Nov. 2011.

⁸¹ Eric Kandel, et al., *Principles of Neural Science: 5th edition*, (New York, NY: The McGraw-Hill Companies, 2000), 1447.

⁸² Christopher Deane, personal interview, 12 Nov. 2010.

remember, years later, a 16th note passage from Russell Peck's *Timpani Concerto*. Deane compares this process to that of linguistic phonetics used in Indian music.

~ Mental Techniques ~

“All of this [body] is a puppet to your brain,”⁸³ said Robert Schietroma. The process of memorization doesn't have to always occur at the instrument or even after a piece has been learned. In fact, it is possible to learn and memorize an entire piece without even touching the instrument. When a certain level of musicianship is achieved, it is rare to encounter totally new material. Almost everything played is simply a different permutation or combination of the same notes and rhythms played previously. Technically, musicians are simply trying to achieve a certain level of facility that allows them to express any idea effortlessly through their instrument.

Taking these two realities into consideration, learning a new piece of music is merely a matter of understanding how familiar musical elements are pieced together. If the musician's technique is capable of physically translating what their brain deciphers, learning a piece away from their instrument is more than feasible.

There are three different ways to learn and memorize music away from the instrument:

1. Visualize the score – create a mental image of how the notes look on the staff.
2. Visualize the instrument – envision the physical action of striking the instrument.

⁸³ Robert Schietroma, personal interview, 3 Nov. 2012.

3. Memorize the sound – create aural memory (audiation)

The method that works best for each individual is largely dependent on their learning style *at* the instrument.

Shakti Gawain explains in her book, *Creative Visualization*, that when using visualization, everybody does it differently.

*Some people say they see very clear, sharp images when they close their eyes and imagine something. Others don't really 'see' anything; they sense or feel it, or they just sort of 'think about' it. That's perfectly fine. Some people are more visually oriented, some are auditory, others are more kinesthetic. We all use our imaginations constantly - it's impossible not to, so whatever process you find yourself doing when you imagine is fine.*⁸⁴

Regardless of which method is used, the ability to memorize away from the instrument is incredibly powerful. The ability to eliminate the kinesthetic element is very difficult for those who rely too heavily on muscle memory. Frederic Macarez, for one, believes that “if you just move on the instruments without any connection, you will not memorize.”⁸⁵ Additionally, muscle memory usually dissipates quicker than mental memory. Robert Schietroma agrees, saying, “you want to have the mind take a picture of the piece. If the hands take a picture of the piece, you lose it, it doesn't stay with you forever.”⁸⁶

By taking a mental picture, when the same piece is to be played again a few months or years later, the piece does not have to be re-learned “because it's in your mind, and it's in

⁸⁴ Shakti Gawain, *Creative Visualization*, (Novato, California: Nataraj Publishing, 2002), 17.

⁸⁵ Frederic Macarez, personal interview, 27 Oct. 2012.

⁸⁶ Robert Schietroma, personal interview, 3 Nov. 2012.

your head,” explained Macarez. As an orchestral player, Macarez plays a lot of the same repertoire. “Next week we play Rite of Spring and of course I did practice that twenty or twenty-five years ago, but right now I won’t practice it. I will just read the music a couple of times just to remind myself what happens here and there. I know the piece.”⁸⁵

Another advantage to developing this technique is that one can practice almost anywhere and anytime. This is very helpful for people who don’t have regular access to an instrument or spend a lot of time traveling. Keiko Abe is known for having an amazing ability to learn pieces away from the instrument. When Michael Udow was working with Pablo Casals and Keiko Abe a number of years ago, he witnessed her using this method.

*They both seemed to learn the repertoire first away from the instrument before they actually practiced it. I would see Keiko looking at the score and the music. Let’s say we were just getting some music and she didn’t have chance to practice it yet. She wouldn’t go straight to the instrument, but she would just study the music. I heard that is also what Pablo Casals did throughout his career.*⁸⁷

This technique is not easy for everybody to develop and definitely has a steep learning curve. But once developed, it can prove to be extremely useful. Not only will the player be able to practice anywhere and have a deeper understanding of the piece, but it will promote mental toughness. Joshua Smith finds that when he spends a lot of time memorizing music away from the instrument his “memory gets better.”⁸⁸

Learning a piece away from the instrument requires extreme concentration and must be done in a focused environment. Steven Schick believes that learning music in an

⁸⁷ Michael Udow, phone interview, 16 Nov. 2012.

⁸⁸ Joshua Smith, personal interview, 11 Nov. 2011.

environment with constant interruptions results in chronic memory slips and hesitations during performances because the information was not inputted smoothly and cohesively. “Distraction at the moment of remembering tends to retard the conversion process, and the resulting long-term memory is pockmarked with moments of fallibility.”⁸⁹

For this reason, it is important for musicians to discover which environments promote their most focused state. Robert Schietroma learns best while either sitting in a chair and being “very, very comfortable” or while walking around the room. He theorizes that most percussionists are most concentrated while walking around or being physically active because as percussionists, they are naturally attracted to motion. “That’s why we selected the instrument . . . motion helps us learn the notes.”⁹⁰

Visualize the Score

The first method of memorizing a piece away from the instrument involves trying to take a mental picture of the score. Gordon Stout uses this method and describes it as “writing the piece out from memory in my mind. I visualize the notes on the staff, not on the marimba.”⁹¹ I-Jen Fang uses this same method and describes it as “picturing the note that is coming.”⁹²

⁸⁹ Steven Schick, *The Percussionist's Art: Same Bed, Different Dreams*, (Rochester, NY: University of Rochester Press, 2006), 125.

⁹⁰ Robert Schietroma, personal interview, 3 Nov. 2012.

⁹¹ Gordon Stout, personal interview, 3 Nov. 2012.

⁹² I-Jen Fang, personal interview, 11 Nov. 2011.

Rather than visualizing the notes in sequence on the page as they happen, Robert Schietroma tries to visualize the entire page as one image. He compares it to looking at somebody's face. "I'm not doing left to right, I'm looking just like I look at you. I see your hair, your eyes, your ears, and your nose. I'm not going to concentrate on your ears, because that would be useless. Unfortunately, that's how some people learn music." He feels that it is important to view the music as one entity, rather than individual elements; otherwise one gets lost in the density of the music. Your eyes have to "pick out the clusters, and the more you pick out the clusters, the more you realize it's a box piece of music."⁹⁰

Allowing the eyes to focus on the important details keeps the brain from becoming overwhelmed. With the amount of data on each page, trying to see every single detail will slow down one's ability to recall information in real time. This same concept is why Gordon Stout likes to learn pieces away from the instrument. When performing, he would rather visualize the notes on the staff than see every note on the instrument. Although he is relying on mental memory versus kinesthetic memory, he describes it as a kinesthetic experience because his body has been trained to kinesthetically transfer what he sees in his head to the instrument.

I write them out from memory in my mind, because I don't want to see too many of the notes on the instrument while I'm playing. That's not my style. I actually try to see as few as the notes as possible. It's all kinesthetic in other words. That's a large part of the way I play. So I don't want to see too many notes on the keyboard because then I get confused.⁹¹

Visualize the Instrument

The second method for memorizing music away from the instrument also involves reading the score but instead of visualizing the notes on the staff, the player visualizes him or herself kinesthetically striking the instrument. The memorization becomes a visual playback of what the player experiences while standing at the instrument and playing. Payton MacDonald described his use of this method: “I will attempt to play it through in my head, but what I will actually see in my head is the keyboard [and how I would be] moving around the keyboard.”⁹³

When using this method, the first step is to take a passage and “slow the tempo way down” until you can “see it note by note,” explained Jason Baker. Do this for every passage until you can visualize yourself “hitting every note of the entire piece.”⁹⁴ Once this is attainable, begin increasing the tempo. In doing this, the visualization will change from seeing each individual note to seeing groups of notes. James Campbell describes it as “seeing the shape of the pattern on the instruments.”⁹⁵

This kind of visualization is a hard skill to develop and can be extremely taxing in the beginning. If this process proves too troublesome, another method involves visualizing while physically standing at the instrument. This is done with eyes open and uses the actual instrument as the mental template.

⁹³ Payton MacDonald, personal interview, 3 Nov. 2012.

⁹⁴ Jason Baker, personal interview, 11 Nov. 2011.

⁹⁵ James Campbell, personal interview, 25 Mar. 2013.

Andy Harnsberger uses a three-step process to teach his students how to visualize. “Look at the keyboard and visualize your mallets across the keyboard. Then put your hands behind your back and look at the notes. Then you can do it totally away from the keyboard.”⁹⁶

When She-e Wu teaches visualization to her students, she provides her students an 11x17 picture of a marimba to use as their mental template. Many people find it easier to visualize if they can actually see a marimba. Developing the ability to practice mentally facilitates learning and practicing anywhere and at anytime. Joshua Smith for example, does practice run-throughs in his bed before he falls asleep. “Sometimes it kept me up a lot longer and I couldn’t fall asleep because I realized, ‘Oh goodness, I don’t know where that is.’ It would bother me until I could get back to the instrument the next morning or the next day.”⁹⁷

Aural Recognition and Memorization

The third and final way of memorizing a piece of music away from the instrument is to memorize how the piece sounds, essentially creating an aural playback. In the words of Gary Cook, learn to “hear it in your head.”⁹⁸ This type of aural recall is referred to as audiation.

⁹⁶ Andy Harnsberger, personal interview, 2 Nov. 2012.

⁹⁷ Joshua Smith, personal interview, 11 Nov. 2011.

⁹⁸ Gary Cook, personal interview, 2 Nov. 2012.

The term *audiation* is described as the auditory equivalent of imagination, which we typically associate with visual images. Edwin Gordon, who first coined this term, provides a definition in his book, *Preparatory Audiation, Audiation, and Music Learning Theory*.

*Audiation is the ability to hear and to understand music for which the sound is not physically present or may never have been physically present.*⁹⁹

There are many ways of transferring the score to aural memory. Payton MacDonald tries to hear the music in his head, while Joshua Smith sings the piece back to himself. “A lot of people do it with solfege,”¹⁰⁰ said Michael Udow, while Anders Holdar simply sits at his desk, reading it over and over and trying to “imagine how it sounds.”¹⁰¹

Michael Udow is a strong believer in audiation and his preferred method is to sing it out loud. In addition to singing the music away from the instrument when memorizing, Udow uses singing to determine phrasing and articulation. Even after returning to the instrument, he continues to “sing or scat out loud . . . I’m getting to understand it at the level of a singer. When and how to breathe to get the musical gesture across that I’m after. I will also sing for slurs and articulations and thinking about what kind of punch will help emulate that articulation that I can sing.”¹⁰⁰

⁹⁹ Edwin E. Gordon, *Preparatory Audiation, Audiation, and Music Learning Theory: A Handbook of a Comprehensive Music Learning Sequence*, (Chicago, IL: GIA Publications, 2001), 3.

¹⁰⁰ Michael Udow, phone interview, 16 Nov. 2012.

¹⁰¹ Anders Holdar, personal interview, 28 Oct. 2011.

Singing will also help uncover poor choices that are sometimes made due to technical deficiencies. By removing the challenges of playing the particular instrument and focusing simply on how it should sound, it can be much easier to determine one's artistic goals.

For performers who lack aural skills, this can be a very challenging method. Robert Schietroma, however, does not have much sympathy for those who struggle with this method. He believes that audiation is a necessary skill for all musicians. "I'm sorry, but if you can't hear what you're looking at, then you can go out and dig ditches. You need to get another profession because all you're doing is target practice, [and] that's very bad."¹⁰² Edwin Gordon agrees with Schietroma and believes that "all learning begins with the ear, not the eye." When music is learned using the ear as opposed to the eye, "students can genuinely learn music rather than simply be trained to put on performances."¹⁰³

Plan Logistics

Using mental techniques can also be used to sort out logistical issues. When Gary Gook gets a new piece, he "spends as much time as possible"¹⁰⁴ figuring out set-ups and logistical issues. This is especially the case when learning a new timpani solo or excerpt and tuning schemes and changes must be well thought out. This process can be done away from the instrument and as Anders Holdar points out, will "go quicker if you plan

¹⁰² Robert Schietroma, personal interview, 3 Nov. 2012.

¹⁰³ Edwin E. Gordon, *Learning Sequences in Music*, (Chicago, IL: GIA Publications, 1993), 29.

¹⁰⁴ Gary Cook, personal interview, 2 Nov. 2012.

before you move to the instrument.”¹⁰⁵ In addition, percussionists spend a good percentage of their practice time setting up and tearing down instruments. Learning a new piece of music mentally eliminates this wasted time, maximizing the player’s precious practice time.

Most musicians seem to agree that there are not enough hours in the day, especially to practice. Memorizing music away from the instrument helps maximize time by creating productive learning hours during time that would otherwise be wasted like when sitting on an airplane or train. Over half of the percussionists interviewed mentioned using one of the three methods, with many claiming it “essential”¹⁰⁶ to their practice habits. Further, there seems to be a consensus that learning a piece mentally solidifies it in memory better than muscle memory learning, which should also result in longer retention. Although this is a skill that must be practiced and does not come easy at first, many musicians that use these methods find that it strengthens their mental psyche, both in performance and in other aspects of their life.

~ Avoiding Memory Slips ~

It’s apparent that there are many advantages to performing and learning a piece of music by memory from both the audience’s and the performer’s perspectives. Playing from memory usually means that the player knows the piece better and allows them to express

¹⁰⁵ Anders Holdar, personal interview, 28 Oct. 2011.

¹⁰⁶ Payton MacDonald, personal interview, 3 Nov. 2012.

it more naturally. This seems ideal and for most musical situations, except for one major detail all too familiar to performing musicians - memory slips.

When it typically counts the most and a performer is ready to share their hard work and skill with the world, they suddenly forget parts of the music. Every percussionist interviewed has faced this terrifying experience and it is likely that most musicians have experienced this terrible reality of live performance. Many times these memory slips are in unpredictable places and at unpredictable moments. So why do they happen? How can one avoid them? Are they caused by a flawed practice method or simply an unavoidable performance side effect? Unfortunately, there are not simple answers for these questions, and memory slips can occur for many reasons. All of the percussionists interviewed have their own ways of dealing with this issue and expressed various theories as to why they happen.

Slow Practice

When performing in front of an audience, nervousness often changes the way our bodies function. Heart rates increase and adrenaline is released, which can cause muscles to tense up or tremble. These physical characteristics are very different than those experienced in the comfort of a practice room, where the piece was learned and practiced. As a result, most performances feel significantly different on a physical level.

If the music was memorized using muscle memory, when it comes time to perform, there may be a problem. Brian Nozny described it this way: “When you are relying on muscle memory you are relying on your muscles. But what’s the first thing to freak out when you get nervous ... your muscles.”¹⁰⁷ How can muscle memory be replicated when the muscles feel drastically different? Further, muscle memory is usually developed at certain tempos or has been continuously adjusted to work at a specific range of tempos. When performers are nervous, there is a tendency to play faster. If the increased tempo exceeds the range of the rehearsed muscle memory, the muscles become confused and are unable to recall their kinesthetic memory.

Michael Burritt believes that if performers can wean themselves from muscle memory dependence and instead learn music mentally, memory slips caused by muscle confusion can be avoided. Burritt believes that the best way to solve this problem is by practicing extremely slow. Slow practice breaks down the “kinesthetic patterns which are ingrained at the performance tempo” and test if the notes are really known. “If I go slower, I have to concentrate more,”¹⁰⁸ said Burritt. If the player is unable to do this, it means they are relying too much on muscle memory, putting him or herself at a high risk for memory slips.

Brian Nozny also uses this same method of slow practice and feels that it gives his brain “time to absorb everything that’s going on.” Then if his muscle memory starts to fail him,

¹⁰⁷ Brian Nozny, personal interview, 30 May 2012.

¹⁰⁸ Michael Burritt, personal interview, 20 Jan. 2013.

he can rely on his brain to realize “this is the part where we do this . . . and here we go.”¹⁰⁷

Another way to reinforce mental memory and eliminate dependence on muscle memory is to practice away from the instrument. Of the percussionists interviewed, nearly half of them said this was their preferred way of avoiding memory slips. As mentioned previously, this can be done in three ways: visualizing the notes on the page, visualizing the striking of the instrument, and through aural recall. All three if these methods are a tremendous way of ensuring that the notes are truly known, versus relying on muscle memory.

Both Andy Harnsberger and Michael Udow test their mental ability to visualize the score by writing every single note out on staff paper. Brian Mason also checks himself on how well he knows a piece, but instead of writing the notes out, he does mental run-throughs, trying to visualize himself striking each note. If at any point “I get tense and it goes blank . . . then I know it isn’t truly memorized and there is a trouble spot . . . If I were to perform at that time I would be relying on muscle memory to get through that moment.”¹⁰⁹

Julie Licata goes the extra mile and uses two forms of visualization. “[I have] a photographic picture of the music in my head [and a] photographic picture of the shapes that my hands make on the instrument,”¹¹⁰ said Licata. If her muscle memory and one

¹⁰⁹ Brian Mason, personal interview, 10 Mar. 2013.

¹¹⁰ Julie Licata, personal interview, 12 Nov. 2011.

form of visual memory fail her, she has a third option. This level of preparation is remarkable and obviously takes a great deal of discipline and concentration.

In Sandra Blakeslee's book on brain mapping, *The Body has a Mind of Its Own*, she describes an experiment conducted to demonstrate the benefits of mental practice. A group of seventy-five volunteers who had never played darts before were divided into five groups. Each participant threw one round of darts and their baseline score was recorded. For the next eight weeks, each of the five groups were given different practice assignments. Group one was instructed to never play darts. Group two was instructed to throw fifty darts for thirty minutes per day, five days a week. Groups three, four, and five were told to alternate between mental training and physical practice. They were to spend one day throwing the fifty darts for thirty minutes and the next day listening to training tapes for thirty minutes without physically throwing any darts. After eight weeks, all five groups took a post-test, throwing fifty darts. Group one showed no improvement. Group two improved on average by sixty-seven points, and Groups three, four, and five improved on average by 111, 141, and 165 points.¹¹¹ This simple study demonstrates the impact of visualization, and validates its importance in all aspects of life, not just music.

Muscle Memory

Although there are clear dangers of relying solely on muscle memory, our mind can fail us too. Frederic Macarez finds that sometimes the ability to rely on muscle memory

¹¹¹ Sandra Blakeslee, and Matthew Blakeslee, *The Body Has a Mind of Its Own: How Body Maps in Your Brain Help you Do (Almost) Everything Better*, (New York, NY: Random House, 2008), 55.

prevents a memory slip. For instance, random occurrences and spontaneous problems such as “a problem with a pedal” sometimes take place during a performance, temporarily requiring the player’s attention. In this case, the mind’s consciousness must be momentarily diverted to fix the problem, leaving the player dependent on their muscle memory to keep playing. Macarez also points out that when playing a concerto, “you have twenty or twenty-five minutes of music without really a rest.”¹¹² In these situations, the player doesn’t always have time to think, resulting in mental exhaustion or over-stimulation. When this occurs, having strong muscle memory can help avoid memory slips caused by mental breakdowns.

In Howard Gardner’s book, *Frames of Mind*, Gardner argues that mental memory requires constant feedback and may break down at quicker tempos.

When execution is being dictated by the brain rather than from muscle memory, these voluntary movements require perpetual comparison of intended actions with the effects actually achieved: there is a continuous feedback of signals from the performance of movements, and this feedback is compared with the visual or the linguistic image that is directing the activity.”

As a result, when “lengthy sequences of movement [occur] at so rapid a clip that feedback from perceptual or kinesthetic systems cannot be used,” muscle memory is the only way to execute “such highly programmed sequences.”¹¹³

¹¹² Frederic Macarez, personal interview, 27 Oct. 2012.

¹¹³ Howard Gardner, *Frames of Mind*, (New York, NY: Basic Books, 1983), 223.

Triple Channel Learning

It is apparent that there are advantages to relying on both muscle and mental memory, so why not use them both? Barry Green, author of *The Mastery of Music*, believes that the when he can “switch comfortably between an automatic, or muscle memory, mode and a very focused, conscious mode,” he has reached the “optimal state.”

*I need to be at this master panel and flip the switch back and forth as need dictates. When technicalities don't require my direct awareness, I prefer to lose myself in the music; that's when it's good to get into the automatic mode. Muscle memory can be a powerful tool as long as it's backed up by a strong conscious awareness in preparation. That's why a controlled blend of the conscious and automatic is so important.*¹¹⁴

Combining multiple ways of learning, “multi-sensory learning,” as Gary Cook describes it, is another way of avoiding memory slips. Five of the percussionists interviewed believe that this is the best way to avoid memory slips. Gary Cook thinks “triple channel learning,” a combination of visual, auditory, and kinesthetic senses, is the best preparation in avoiding memory slips. Interestingly, he recommends that these not be initially combined, but rather “separate [them] as much as you can and then blend it all together.”¹¹⁵ James Campbell also uses this method, especially to check the status of his memorization. “I’m usually also trying to triple channel. If I’ve got it memorized, I know I can sing it, and I can feel it, and I can see it.”¹¹⁶

¹¹⁴ Barry Green, *The Mastery of Music: Ten Pathways to True Artistry*, (New York, NY: Broadway Books, 2003), 172.

¹¹⁵ Gary Cook, personal interview, 2 Nov. 2012.

¹¹⁶ James Campbell, personal interview, 25 Mar. 2013.

Correct Input

Memory slips can also be caused by a natural confusion of the body and mind. When performing on stage, musicians attempt to recall their most accurate version of the piece. This is a very specific version and there have probably been many less desirable renditions played along the way. In *The Mastery of Music*, Barry Green states, “science tells us . . . [that] the mind remembers each of our mistakes as well as our eventual successful phrasings.”¹¹⁷ So how is the best and most accurate version recalled? Many of the percussionists interviewed believe that the very first time it is played ultimately determines one’s ability to recall the correct version later. Gary Cook refers to it as “input, storage, and recall.” He theorizes that if “it goes in correctly . . . you can recall it correctly.”¹¹⁸ Paul Rennick agrees, saying “the first time you learn it is clearly the most important.” By doing it correctly the first time, the “lack of changes cement the memory a little better.”¹¹⁹

Eric Willie takes the idea of correct input to the extreme. He tries to figure out where he stands in relation to the instrument for each musical passage so that he can always replicate his exact positioning at the instrument. “I go through and mark my body. In this passage, I would write ‘f g’, so my body would be between the ‘f’ and the ‘g.’”¹²⁰ Once the information has been inputted correctly, pure repetition can decrease the chances of memory slips. Paul Rennick believes that when something is known well enough,

¹¹⁷ Barry Green, *The Mastery of Music: Ten Pathways to True Artistry*, (New York, NY: Broadway Books, 2003), 81.

¹¹⁸ Gary Cook, personal interview, 2 Nov. 2012.

¹¹⁹ Paul Rennick, personal interview, 12 Nov. 2011.

¹²⁰ Eric Willie, personal interview, 11 Nov. 2011.

memory slips will not occur, regardless of how nerve-racking the situation. For example, if a person is asked to recite their name in front of thousands of people, they are able, without fail, no matter how nervous they may be. “Everybody wants to know how to think about it and all these deep psychological things,” explains Rennick, but he finds that “the basic principle of repetition”¹²¹ eliminates his memory slips.

Concentration

Performance is a game of concentration. The performer has played the piece hundreds if not thousands of times by the time it’s taken to the stage, so clearly it’s adequately learned. Doing another run-through on stage shouldn’t be any different, but for many reasons, it is. Performers are sometimes mentally distracted during a performance. Suddenly, for no good reason, the person in the front row with red shoes catches their attention, or perhaps it’s a hoarse cough or loud sneeze from the audience. These are obviously the wrong things to be thinking about while performing and may cause problems, explained Payton MacDonald. “You are playing and suddenly you think about this and boom, you’re lost.”¹²² What’s even worse, is when random thoughts are replaced by a single distracting thought, like ‘don’t mess up!’ Inevitably, when a re-occurring thought takes hold, it can become a self-fulfilling prophecy. “When I start worrying about memory slips is when I make a memory slip,”¹²³ said Jason Nicholson. So how does one turn this counterproductive chatter off?

¹²¹ Paul Rennick, personal interview, 12 Nov. 2011.

¹²² Payton MacDonald, personal interview, 3 Nov. 2012.

¹²³ Jason Nicholson, personal interview, 2 Nov. 2012.

Andreas Connirae, author of *Heart of the Mind*, believes that instead of turning the chatter off, it is better to redirect positively. “When people think about what they don't want, or what they want to avoid, they often produce that in their lives, because that is where their minds are focused. Changing your thinking to what you do want is a simple shift that can make a tremendous difference.”¹²⁴ Others find that eliminating these thoughts takes practice room preparation and have devised particular methods as they approach the performance. Brian Nozny said “I literally need to train myself that when I’m practicing, I’m making the investment that for the next four minutes I’m playing this piece and my mind will not think of anything else. That’s where I will be.”¹²⁵

So how does one train the brain? Jason Nicholson has given this topic extensive thought and uses aspects of Zen philosophy to overcome mental distractions. “I work on exercises to eliminate the left brain ego side; that’s that chatter in your head, ‘you’re going to mess up’ [or] ‘that’s difficult.’ Practicing meditation can develop the ability to turn that chatter off.”¹²⁶

In Eugen Herrigel’s book, *Zen in the Art of Archery*, he believes the ideal “state of unconsciousness is realized only when, completely empty and rid of the self, he becomes one with the perfecting of his technical skill.”¹²⁷ Developing these techniques takes time and discipline and may be difficult for some people to develop. For this reason, some resort to distracting the mind versus attempting to eliminate distracting thoughts. Jason

¹²⁴ Connirae Andreas, and Steve Andreas, *Heart of the Mind*, (Moab, UT: Real People Press, 1989), 243.

¹²⁵ Brian Nozny, personal interview, 30 May 2012.

¹²⁶ Jason Nicholson, personal interview, 2 Nov. 2012.

¹²⁷ Eugen Herrigel, *Zen in the Art of Archery*, (New York, NY: Random House/Vintage Books, 1974), viii.

Nicholson distracts his brain by singing. “If I’m singing inaudibly while I’m playing, that really helps me because I’m connected to the music. It helps distract the chatter.”¹²⁶ Most people do this subconsciously when practicing alone, especially when they are in ‘the zone.’ Improved focus is a natural reaction to heightened emotional involvement in the music. Consciously deciding to sing inaudibly while playing can help trigger this focused state.

In *The Inner Game of Tennis*, Timothy Gallwey agrees that being engaged is the key to maintaining focus.

*It is not trying to force focus, nor does it mean thinking hard about something. Natural focus occurs when the mind is interested. When this occurs, the mind is drawn irresistibly toward the object (or subject) of interest. It is effortless and relaxed, not tense and overly controlled.*¹²⁸

The most difficult time to prevent disruptive thoughts from invading one’s consciousness is usually during parts perceived as problem spots. As Jason Nicholson explains, “When I’m getting to a point in the music that routinely triggers negative chatter, I’ll focus on the phrasing only or the technique only or try to have one particular thing to distract this brain when I know it’s going to come up.”¹²⁹ Focusing the brain on certain thoughts during a particular passage is a great way to preoccupy it. If the player is still unable to turn the chatter off, Nicholson advises that the anticipated memory slip be embraced, as well as a good recovery plan. “When you’ve practiced thinking about recovering you’re not as worried about the mistake. As a result, you make less mistakes. There is going to be a slip somewhere, it’s about recovery. That relaxes me.”¹²⁹

¹²⁸ Timothy W. Gallwey, *The Inner Game of Tennis*, (New York, NY: Random House, 2008), 87.

¹²⁹ Jason Nicholson, personal interview, 2 Nov. 2012.

An emphasis on recovery was shared by many of the percussionists interviewed. As expected, there were many different ways of going about it. Omar Carmenates believes that the best way to recover from a memory slip is to learn how to “improvise in the style” of the piece. By learning to improvise “you are actually learning the language . . . you learn the language harmonically, rhythmically, and idiomatically of the composer.” When Carmenates has memory slips during performances, he is “able to improvise like the piece and get back in two or three beats later.”¹³⁰

Blake Tyson also thinks that it’s important to be able to improvise in the style of the piece. If a memory slip does occur “in a concert, you have to work your way out of it.” To do this, the first step is to “understand the theory of how it’s written.” If you “understand how it works, the language you are speaking, then you can pull your way out of it.”¹³¹ Edwin Gordon agrees with Tyson and states in his book, *Learning Sequences in Music*, that “in creativity and improvisation, the absence of imitation emphasizes difference, and so rich vocabularies of patterns are necessary of students are to make good choices.”¹³²

Thomas Burritt also believes that it is important to understand the theory behind the piece, but doesn’t use it to improvise his way out of a memory slip. Instead, he does a full “formal analysis”¹³³ to create another level of understanding. If the player understands

¹³⁰ Omar Carmenates, personal interview, 12 Nov. 2011.

¹³¹ Blake Tyson, personal interview, 3 Nov. 2012.

¹³² Edwin E. Gordon, *Learning Sequences in Music*, (Chicago, IL: GIA Publications, 1993), 142.

¹³³ Thomas Burritt, personal interview, 3 Nov. 2012.

how each phrase fits into the whole, they are less likely to forget what happens next. Rather than doing a complete analysis, Michael Udow just analyzes the solfege of each note. “Knowing how it all fits together within the key signature, modulations, and so on”¹³⁴ is enough to help Udow understand the function of each phrase.

While understanding the theoretical structure can help one avoid memory slips, it can also aid in recovery once the memory slip has occurred, explains Brian Nozny. “If something does go wrong, I can go, ‘this is where I’m going to G minor right now.’”¹³⁵ Associating the music to a larger theoretical structure is a natural tendency of the mind and body. In Edwin Gordon’s book, *Learning Sequences in Music*, he points out that this is done at a very early age.

*When children hear their first words, they naturally associate them with objects, and it is by naming objects- actually using language to communicate- they develop readiness for further language learning. When children first hear tonal patterns and rhythm patterns in lullabies or simple folk songs their parents sing to them, it is the text of these songs, not the music itself, they find compelling, because they are already disposed to learning language. Thus, sequential music learning cannot take place as naturally in music as it does in language. Such differences are accounted for in music learning theory.*¹³⁶

Matthew Duvall also does a formal analysis of the piece, but instead of focusing on the harmonic structure, he does it purely based on phrase lengths. “I break my parts up into small sections and then I number all the measures of phrases . . . but it is not like I’m counting measure numbers, because I start each new phrase with one.” Then as Duvall plays through the piece, he counts the measure numbers of each phrase in his head,

¹³⁴ Michael Udow, phone interview, 16 Nov. 2012.

¹³⁵ Brian Nozny, personal interview, 30 May 2012.

¹³⁶ Edwin E. Gordon, *Learning Sequences in Music*, (Chicago, IL. GIA Publications, 1993), 29.

memorizing the phase lengths “like a telephone number.” He finds that as long as he keeps counting, “even if you trip notes and get messed up, mentally you don’t get lost in the course of navigation in the architecture of the piece.” Memory slips can occur during repeated phrases or parallel sections. If the player temporarily loses concentration it’s easy to forget which repetition is currently being played. Matthew Duvall solves this problem by changing the stickings so that the two sections are no longer identical, “preventing that confusion.”¹³⁷ He does caution to choose stickings that don’t negatively alter the phrasing.

Create Triggers

While understanding the formal construction of the piece typically helps reduce memory slips, not all pieces lend themselves to analysis. In these cases, analysis can be substituted by a system of triggers. Using this method, it is not necessary to remember each note or understand how it fits into the whole. Instead, simply identify the moments in the piece that stand out most and use them as reminders for what happens next. Matthew Duvall explains, “I remember the location of those landmarks in the course of the piece and so you start the piece and that is trigger note number one. In my brain I don’t remember every note but I do remember those trigger landmarks. I play from one landmark to another.”¹³⁷

Steven Schick also uses a trigger system to avoid memory slips. His ‘memory packets’ are “loaded with kinetic information, each consisting of trained and reliable physical

¹³⁷ Matthew Duvall, personal interview, 1 Mar. 2013.

reflexes that are initiated by a mental cue.” While playing, Schick’s brain delegates the memory packets to the body in chronological order through trigger mechanisms. The goal of this process is to keep the brain calm while the body is recalling the kinesthetic movements. “I do not have to think every note. The body is subservient to the dictates of the brain and fills in the rest of the packet as a kinetic response.”¹³⁸

Stop and Start Anywhere

The process of creating triggers aids in getting from one section to the next, but if a memory slip occurs between sections, it may be hard to recover. Five of the thirty-six percussionists interviewed emphasized practicing the ability to stop and start anywhere. This is something that must be practiced and likely will not come naturally because music is typically learned and memorized in sections. For instance, Steven Schick explained, “I really think that the strategy for dealing with memory errors doesn’t take place on stage, it really takes place in the practice room. So you learn in such a way that you can restart at any given point.”¹³⁹

I-Jen Fang practice this by simply saying to herself, “‘I’m going to start right here,’ and then go ahead and do it.” If the player can learn to do this, when a memory slip occurs,

¹³⁸ Steven Schick, *The Percussionist's Art: Same Bed, Different Dreams*, (Rochester, NY: University of Rochester Press, 2006), 132.

¹³⁹ Steven Schick, personal interview, 31 Oct. 2012.

they are able to simply skip the rest of that section and jump in at the next phrase. As long as you don't hesitate and go for it, "nobody will know."¹⁴⁰

Kevin Bobo takes this idea to the extreme. When practicing marimba, he stops and starts in random places while actively keeping track of the perceived playback. In other words, when his hands stop, he continues singing along in his head so that when he begins playing again, he has accounted for the time passed. It's as if he was temporarily muted rather than eliminating sections of music. Bobo then takes this concept a step further by stopping only one hand at a time, while continuing to play his other hand. This is incredibly difficult and his ability to execute this demanding exercise is probably related to the manner in which he learns music, one hand at a time.

Bobo also has a unique theory as to why memory slips occur. He believes that memory slips take place when the musician looks in an unusual place. When learning a piece of music, the musician subconsciously establishes a set routine of where the eyes look. This is typically dictated by difficult or important phrases of an individual hand. Bobo believes that sometimes, for no apparent reason, the eyes choose to look somewhere different, temporarily throwing off the player's visual memorization.

Bobo prepares for this by training himself to look in different places. He will do an entire run-through while only staring at his left hand, followed by an entire run-through while only staring at his right hand. Bobo says that the key to this process is that while staring

¹⁴⁰ I-Jen Fang, personal interview, 11 Nov. 2011.

at one hand, the player must envision, in their minds eye, what the other hand is doing. This is crucial to the process and helps create complete vision independence. This method has its obvious challenges and is not easily executed, however, Bobo is confident that this is the best way to solve memory slips.¹⁴¹

Anxiety Induced Memory Slips

Performance anxiety is something all musicians experience, regardless of their status or age. Although it can cause a variety of problems, such as increased tempo or decreased expression, the most threatening symptom is undoubtedly memory relapse. Performances that fall short of one's personal standards are disappointing, but endurable. Stopping in the middle of a performance or having to end prematurely is perceived as a complete failure.

As a result, it is easy to become obsessed with strategies that aim to eliminate this possibility. However, this fixation can go too far and Steven Schick cautions that placing too much emphasis on not forgetting may result in other deficiencies.

People forget to practice lines, phrasing and the overall shape of the piece. They forget everything else except the goal of not forgetting and it becomes this incredible thing. When you put that much effort in to something, and say you don't forget, is that a successful performance? It might be a horrible performance. You succeeded in not forgetting but you failed at everything else. So I think the last days before performance should be spent on things that you actually really care about.¹⁴²

¹⁴¹ Kevin Bobo, personal interview, 13 Nov. 2010.

¹⁴² Steven Schick, personal interview, 31 Oct. 2012.

~ Listening to Existing Recordings ~

When learning new music, it's very likely the piece has been performed before. Occasionally there are opportunities to premiere new music, but more commonly, previous recordings exist and are available if desired. The question of whether or not to listen to another player's performance, while learning the piece, is highly debated within the musical community. The percussionists interviewed were no different, as they were divided on this issue. It should be pointed out that opinions differ depending on the genre of music. Although there were some people who always listen to recordings and some people who never listen to recordings regardless of the genre, most had differing opinions based on whether the piece was solo, chamber, or for large ensemble. Therefore, it is important to differentiate which genre of music is in question.

Solo Music: Negatives of Listening to Recordings

When playing solo music, eight of the thirty-six percussionists interviewed never listen to available pre-existing recordings and believe that doing so will have a detrimental effect on their performance.

Eric Willie believes that "the worst thing we can do is copy something that's already been done."¹⁴³ Michael Udow agreed saying, "our job as a performer is to interpret the composer's intentions without being influenced by how other people interpreted the

¹⁴³ Eric Willie, personal interview, 11 Nov. 2011.

composer's intentions."¹⁴⁴ Frederic Macarez also agrees, adding, "if you listen to another interpretation first, you will start to practice with an idea that is not your idea. It is the idea of someone else."¹⁴⁵

As an audience member, what is the value of hearing a performance modeled after someone else's performance. "Burritt's already played that, I can listen to that recording,"¹⁴³ said Eric Willie. Live performance should create a truly unique experience for the audience, and Blake Tyson stated, "since that recording already exists, there is no point in me imitating it."¹⁴⁶

John Parks believes that ignoring existing recordings is not only important for creating a truly original performance but it is also crucial to the player's development as a musician. "For students, I really don't want them to hear it first because then they start mimicking. While that's not a bad thing, I'd rather them start to develop their own trust in their instincts."¹⁴⁷ Even if after listening to a recording, a performer chooses to do it 'their own way,' Steven Schick believes that the damage has already been done. By listening to an example, you have already "narrow[ed] the range of possibilities pretty dramatically"¹⁴⁸ because you have heard it in a particular context.

Blake Tyson agrees with Schick, and adds that no matter how hard one tries to play their own original version, it is impossible not to "adopt idiosyncrasies of that recording."¹⁴⁶

¹⁴⁴ Michael Udow, phone interview, 16 Nov. 2012.

¹⁴⁵ Frederic Macarez, personal interview, 27 Oct. 2012.

¹⁴⁶ Blake Tyson, personal interview, 3 Nov. 2012.

¹⁴⁷ John Parks, personal interview, 12 Nov. 2011.

¹⁴⁸ Steven Schick, personal interview, 31 Oct. 2012.

In Geoffrey Colvin's book, *Talent is Overrated*, he argues that the better something is known, the harder it is to escape its influence. "Too much experience within a field may restrict creativity because you know so well how things should be done that you are unable to escape to come up with new ideas."¹⁴⁹

Several percussionists interviewed agree with this philosophy, but listen to recordings anyway. Rather than listening to recordings when they first start learning the piece, they purposely wait until after they have formed their "own ideas,"¹⁵⁰ said I-Jen Fang. Julie Licata does the same thing, but waits until "a couple of weeks" before the performance. She does this to "get new fresh ideas." Sometimes I "get burned out after learning something for a couple of months and then need some fresh inspiration,"¹⁵¹ said Licata.

James Campbell also listens to recordings at the end of his preparation process but doesn't do it for interpretation inspiration. Instead, he does it to ensure he doesn't "miss anything the first time through."¹⁵² Kevin Bobo takes a similar approach, "I only listen to them for one reason, after I have initially learned it to make sure I have learned it correctly. I listen for note accuracy. I don't listen to recordings [early in the process] because I don't want to take somebody else's phrasing ideas until I've determined my own."¹⁵³

¹⁴⁹ Geoff Colvin, *Talent is overrated: What really separates world-class performers from everybody else*, (New York, NY: Portfolio Hardcover, 2008), 150.

¹⁵⁰ I-Jen Fang, personal interview, 11 Nov. 2011.

¹⁵¹ Julie Licata, personal interview, 12 Nov. 2011.

¹⁵² James Campbell, personal interview, 25 Mar. 2013.

¹⁵³ Kevin Bobo, personal interview, 13 Nov. 2010.

Solo Music: Advantages to Listening to Recordings

As mentioned previously, there are many differing opinions when it comes to listening to pre-existing recordings. Eight of the thirty-six percussionists interviewed believe that listening to recordings is an important step in finding their own unique interpretation. Listening to existing recordings exposes interpretations that otherwise may never have been considered, thus leading to a wider range of possibilities.

Christopher Deane believes that “people who don’t do this are missing the opportunity to expand musically because recordings are a documentation of a musician’s thought process on that piece of music.”¹⁵⁴ Michael Burritt agrees with Deane and points out that studying recordings is very similar to studying with a private teacher.

“Like anything else, initially you sound a lot like the person you study with, then I think you begin to grow into your own person. Elements of that teacher will always be part of your playing but you find your own way.”

The way a piece is interpreted initially, may be a combination of multiple recordings, but “eventually as you play it more, it becomes you own version,”¹⁵⁵ said Burritt. Christopher Deane added that after a period of time, personal opinions are formed and “I may disagree with [the recording’s interpretation] but at least I know that I disagree with it.”¹⁵⁴

¹⁵⁴ Christopher Deane, personal interview, 12 Nov. 2010.

¹⁵⁵ Michael Burritt, personal interview, 20 Jan. 2013.

Matthew Duvall is another who feels the same way. “I don’t think there is any harm in being as informed as you possibly can . . . I feel like I learn an incredible amount from other players, both their oversights and their failings save me an enormous amount of time. The goal is to do the job as well as it can be done.”¹⁵⁶

The ability to take in numerous examples, sort through them, and determine an original interpretation is a sign of musical maturity. Brian Mason is another who thinks this way: “I feel like I can make my own decisions even after I’ve heard someone play it.” Regardless of how many different recordings he hears, Mason stated that he can always “decide whether I want to do it that way or not.”¹⁵⁷ Likewise, Joakim Anterot said he always starts by gathering as many examples as possible and then formulates his own version. “I already collected what you guys do, now I do my version. Then I never go back again because I’ve made my choice.”¹⁵⁸ As long as the version that is formulated after hearing numerous examples is based on the individual’s artistic expression and “not just because that’s the way I’ve heard it,”¹⁵⁹ said Omar Carmenates, then listening to recordings can be extremely beneficial.

What happens when the listener deems the recording to be flawless, musically and artistically? Matthew Duvall believes that in these rare occurrences, “there is nothing wrong with imitating another person’s performance.”¹⁵⁶ Payton MacDonald agrees with Duvall saying, “I don’t always feel a need to reinvent the wheel. If someone has

¹⁵⁶ Matthew Duvall, personal interview, 1 Mar. 2013.

¹⁵⁷ Brian Mason, personal interview, 10 Mar. 2013.

¹⁵⁸ Joakim Anterot, personal interview, 28 Oct. 2011.

¹⁵⁹ Omar Carmenates, personal interview, 12 Nov. 2011.

interpreted a piece and come up with ideas, approaches, mallet choices, and mechanical things that work . . . [and] realizes the intent of the composer, then I'm fine to just go with that."¹⁶⁰ Although some musicians may view this as artistic plagiarism, lacking individual expression, Duvall argues otherwise.

*[This is] what teachers in classical studios have been teaching their students for generations. This is the way we play Beethoven, we phrase it this way in this school . . . and this is how we interpret Schumann and Chopin, so this is how you are going to play it. Sometimes it is almost like a doctrine.*¹⁵⁶

Solo Music: Recordings Aid in Learning Process

Listening to recordings can be used for other purposes as well. Instead of listening to the performer's artistic interpretation, recordings can be used to simply hear the piece for the first time and "decide whether or not I actually want to play the piece,"¹⁶¹ said Julie Licata. William Moersch has a similar approach, saying that he uses recordings to help him "choose from the stacks of material."¹⁶² Listening to recordings also aids in getting to know and understand the piece better. Jason Nicholson listens to recordings "with the score as much as possible," allowing him to "learn and understand the piece at a much faster rate." Nicholson attributes this to the fact that he is "an aural learner."¹⁶³

Gordon Stout believes that regardless of your learning style, "it's always easier to learn a piece if you have heard it a thousand times." He makes all of his "students listen to a

¹⁶⁰ Payton MacDonald, personal interview, 3 Nov. 2012.

¹⁶¹ Julie Licata, personal interview, 12 Nov. 2011.

¹⁶² William Moersch, personal interview, 12 Nov. 2010.

¹⁶³ Jason Nicholson, personal interview, 2 Nov. 2012.

piece many times before they are allowed to start learning it.”¹⁶⁴ Another benefit, pointed out by Joakim Anterot, is that listening to recordings allows him to “practice in the air, on the bus, or on the train.”¹⁶⁵

Repetitive listening develops a better understanding of the piece, eventually creating “an auditory road map or aerial view,” said Gary Cook. But, he also warns that repetitive listening of a sub par recording “can be somewhat dangerous.” As mentioned earlier, Cook believes that correct input is key in avoiding memory slips and listening to inaccurate recordings will affect the “programming, storage and recall [process] . . . If you get garbage in, you get garbage out.”¹⁶⁶

Good recordings can also be used as an effective practice tool. Jason Baker listens “to recordings if I’m stuck on something or if I’m not sure how something is done.”¹⁶⁷ Brian Mason added that if he finds a good recording, “it becomes part of my practice routine . . . [and] I’ll play along with it.” By using programs such as the Amazing Slow Downer, the recording can be slowed down or looped, creating a play-along track. Mason feels that this “makes my time spent more efficient” because he is able to “play in the context [and] mimic their style.”¹⁶⁸

¹⁶⁴ Gordon Stout, personal interview, 3 Nov. 2012.

¹⁶⁵ Joakim Anterot, personal interview, 28 Oct. 2011.

¹⁶⁶ Gary Cook, personal interview, 2 Nov. 2012.

¹⁶⁷ Jason Baker, personal interview, 11 Nov. 2011.

¹⁶⁸ Brian Mason, personal interview, 10 Mar. 2013.

Solo Music: Use Recordings to Learn Style

Using recordings to learn the style of the piece is not unique to Brian Mason. When Gordon Stout learns a new piece, he uses recordings to learn “general stylistic characteristics.” If he was learning a choro, Stout said:

*I would get four CDs of choro music. I just listen to them over a period of time, six months or whatever, to internalize lots of different things about the style of the choro. I may not have ever listened to the actual music of the choro that I was learning, because maybe there wasn't one, but I still immerse myself in it and the style.*¹⁶⁹

While learning the style of a piece is beneficial, not all pieces fit easily into a specific genre. When this is the case, it may be better to study the compositional style of the composer. Blake Tyson believes “learning more about the composer or trying to get into other pieces the composer has written”¹⁷⁰ helps him interpret the piece more accurately. He does this by listening to as many works by that composer as he can. This is especially useful when there are no existing recordings of the piece that is being played. In those cases, studying the composer’s other works is the next best option. Robert Schietroma echoed this same principal, but has been able to do it on an even more personal level. “I’ve been blessed with staying in these people’s homes and understanding them gives me understanding of their music and their culture.”¹⁷¹

¹⁶⁹ Gordon Stout, personal interview, 3 Nov. 2012.

¹⁷⁰ Blake Tyson, personal interview, 3 Nov. 2012.

¹⁷¹ Robert Schietroma, personal interview, 3 Nov. 2012.

Ensemble Music

Listening to recordings when learning chamber or large ensemble works is universally accepted and in the case of orchestral repertoire, a standard performance practice. All thirty-six percussionists interviewed believe it is important to listen to recordings when learning pieces that include other musicians.

Listening to recordings enables the player to better understand how their part fits into the ensemble setting and texture. James Campbell listens to pre-existing recordings to determine if his part is “blended in the texture [or] a solo part.” He also uses recordings to determine how his parts line up with others. “Do I have to match my rhythm with other players?”¹⁷²

Brian Mason finds that when he is playing orchestral music, there are many more factors that influence his musical decisions. When preparing for an orchestral rehearsal, it’s important to find a reliable recording that that he can “listen along, and write things in my parts.”¹⁷³ Most professional orchestras have limited rehearsal time so it is the responsibility of the players to learn and prepare their parts on their own. Michael Udow uses recordings to give himself “a sense of how my parts are going to fit in before the first rehearsal.”¹⁷⁴

¹⁷² James Campbell, personal interview, 25 Mar. 2013.

¹⁷³ Brian Mason, personal interview, 10 Mar. 2013.

¹⁷⁴ Michael Udow, phone interview, 16 Nov. 2012.

When listening to recordings, Frederic Macarez doesn't "listen to what I have to play" instead, he listens for "what happens in the orchestra."¹⁷⁵ Similarly, John Tafoya finds that marking in instrumental cues is helpful "so if I miscount or if I get distracted, I know exactly when I'm coming in."¹⁷⁶

When preparing for an orchestral audition, the focus should shift from the ensemble parts to the individual's parts. Audition excerpts require very specific performance practice details that have been established over generations. To learn these subtle nuances, one must diligently study how reputable percussionists perform that excerpt. "You have to listen to recordings. You need to listen to multiple ones, not just one,"¹⁷⁷ explained John Lane.

Listening to recordings to prepare for orchestral rehearsals and auditions is widely accepted and encouraged due to its many benefits. John Tafoya however, pointed out that "sometimes listening to recordings is dangerous because you get used to how the tempo is going to be." After the first rehearsal, "I would never go back and listen to a recording again. It would inevitably be different than what the orchestra is doing,"¹⁷⁶ said Tafoya.

This same principal holds true when preparing for an audition. After an interpretation and tempo has been decided upon, subtle tempo and phrasing inconsistencies of a recording may have negative affects on the player's interpretation.

¹⁷⁵ Frederic Macarez, personal interview, 27 Oct. 2012.

¹⁷⁶ John Tafoya, personal interview, 13 Nov. 2010.

¹⁷⁷ John Lane, personal interview, 12 Nov. 2011.

~ Conclusion ~

Learning a new piece of music is a challenging and complicated process that can utilize many different approaches and philosophies. Regardless which methods are chosen, the general process should be well thought out and planned, according to the individual's learning style and musical objectives. This element of practicing, maybe more so than any other component, is determined by one's learning style. For this reason, careful consideration should be given to which method is used. The 'correct' method will not only allow the player to learn the music quicker, but will result in superior final product. Therefore, it is recommended that the reader try each and every method shared in this chapter to ensure their ideal procedure is realized. The sheer number of approaches, many of which are in opposition to one another, demonstrates that there are many possible ways to achieve the same goal.

Figure 19: Survey – Learning New Music

A. General Overview of Piece	If yes, try method...
Are you good at sight-reading?	A3
Do you typically play very advanced keyboard repertoire?	A2, A4
Are you a weak at sight-reading	A1, A4, A5
Are you a ‘big picture’ type of person?	A3, A5, A4
Do you have a background on the piano?	A2
Do you routinely learn pieces incorrectly?	A1
Are you a visual learner?	A4
Are you an aural learner?	A5
Do you enjoy music theory?	A4
Do you dread learning a new piece of music?	A3, A5
B. Scheduling Goals	If yes, try method...
Are you an extremely organized person?	B1
Do you get overwhelmed easily?	B2
Do you live by your weekly planner?	B1
Do you have a strict performance deadline?	B1
Do you have an inconsistent practice schedule?	B2
C. Order of Learning	If yes, try method...
Do you struggle with remembering the chronology of events?	C1
Do you typically feel unprepared for performances?	C2, C3
Do your performances usually start off strong and finish poorly?	C2
Do you typically have glaring problem spots leading up to the performance?	C3
Do you struggle with memorization?	C4
Do you experience memory slips on a regular basis?	C4
Do you enjoy composing?	C1, C4
D. Philosophies and Approaches	If yes, try method...
Would you classify yourself as an inaccurate player?	D1, D2
Are you currently preparing for an audition?	D1
Do you enjoy routines?	D12
Do you stop and start a lot in the practice room?	D1
Are you typically have limited time to learn new music?	D3
Do technical issues sometimes prohibit you from learning music quickly?	D4
Are you preparing a piece of an unfamiliar style?	D3
Do you typically get off-task while learning new music?	D2
Do you get frustrated easily?	D4
E. Memorization	If yes, try method...
Are you good at sight-reading?	E1, E5
Are you a very systematic person?	E2
Do you typically learn a piece from beginning to end?	E2
Do you enjoy music theory?	E3
Do you have memory slips on a regular basis?	E3, E4
Are you a visual learner?	E4, E5, E6
Do you create strong emotional ties to particular locations?	E4
Do you routinely get songs ‘stuck in your head’?	E7
Do you have a hard time memorizing music?	E3, E4
F. Avoiding Memory Slips	If yes, try method...
Do you find yourself going on auto-pilot during performances?	F1, F8
Have you had a memory meltdown on stage?	F5, F7, F10
Do you have to be at the instrument to trigger your memory?	F1, F2, F3, F4

Do you commonly miss more notes than usual during a performance?	F1, F4, F8
Do you commonly find yourself thinking random thoughts during performances?	F8, F9
Do you commonly get lost during repeated phrases or similar passages?	F11, F12
Do you have a hard time recovering from mistakes?	F2, F3, F4, F5, F13
Do you typically rely heavily on muscle memory?	F1, F2, F3
Do you have previously corrected mistakes randomly occur during performances?	F6
Do you usually have a memory slip after you start thinking about having a possible memory slip?	F7, F8, F9
Do your memory slips usually occur in the same places?	F9, F12
Do you have a hard time recovering from memory slips?	F10, F13
Do your memory slips typically occur during transitions?	F4, F11, F12
Do your memory slips always occur in new and random places?	F2, F14
G. Listening to Existing Recordings	If yes, try method...
Are you a beginner?	G1, G2
Do you struggle with being creative?	G1, G2
Do others easily influence you?	G1
Does your phrasing lack variety and contrast?	G3, G4
Do you have a limited knowledge of the standard repertoire?	G5
Are you playing a piece in an unfamiliar style?	G3, G6
Are you playing a piece by an unfamiliar composer?	G3, G4, G6
Do you commonly learn music incorrectly?	G2, G3
Are you a slow learner?	G3
Are you an aural learner?	G3
Do you commonly get bored of playing a piece?	G2, G4
Is your practice time limited?	G3
Are you playing a highly complex piece?	G3, G4, G6
Do you commonly play with ensembles?	G3, G4
Do you have limited amount of ensemble rehearsals before the performance?	G6

Figure 20: Outline – Learning New Music

Method	Pages
A. General Overview of Piece <ol style="list-style-type: none"> 1. Slow and Accurate Read-Through 2. Read on the Piano 3. ‘Slop Through’ 4. Score Study Away from the Instrument 5. Existing Recordings 	93-98
B. Scheduling Goals <ol style="list-style-type: none"> 1. Scheduled Timeline - Day One to the Performance 2. Short-Term Goals 	99-100
C. Order of Learning <ol style="list-style-type: none"> 1. Beginning to End 2. End to Beginning 3. Hardest Sections First 4. Based on Form 	101-109
D. Philosophies and Approaches <ol style="list-style-type: none"> 1. Perfect Practice 2. Slow Methodical Repetition 3. Written Tempo as Soon as Possible 4. Eliminate Certain Musical Elements 	109-118
E. Memorization <ol style="list-style-type: none"> 1. Organic Memorization 2. Chunks and Memory Packets 3. Identify Structure 4. Associations 5. Visualize Score 6. Visualize Instrument 7. Aural Recognition and Memory 	118-135
F. Avoiding Memory Slips <ol style="list-style-type: none"> 1. Slow Practice 2. Mental Practice 3. Transcribe Music 4. Increased Run-Throughs 5. Triple Channel Learning 6. Correct Input 7. Focus on Positives 8. Sing Inaudibly 9. Designated Focus Point 10. Learn to Improvise in Style 11. Analysis – Form, Harmony, and Phrases 12. Create Triggers 13. Develop Ability to Stop and Start Anywhere 14. Develop Ability to Look Anywhere 	139-156
G. Listening to Existing Recordings <ol style="list-style-type: none"> 1. Never 2. Late in the Process 3. Early and Often 4. As Many Examples as Possible 5. Only to Pick Repertoire 6. Use as a Play-Along 	156 - 166

Copyright © Colin Jeffrey Hill 2013

CHAPTER 6: PROBLEM SPOTS

Once a piece of music has been learned, it is typically far from being performance ready. Depending on which method was used to learn the piece, issues such as tempo, dynamics, and phrasing may need to be addressed or polished. As these elements are integrated, and a sense of continuity is established, certain passages begin to emerge, passages that seem to be more difficult than others. These passages refuse to improve at the same rate as the rest of the material and are commonly referred to as problem spots.

Problem spots can occur for three reasons:

1. Incorrect Muscle Memory
2. Imbalance Between Kinesthetic and Mental Retention
3. Technical Deficiencies

Problem spots caused by incorrect muscle memory occur when the body's kinesthetic actions have been engrained incorrectly. This can happen for a few reasons, assuming the player is not constantly switching instruments or set-ups. If the passage was initially learned incorrectly, even after deliberately fixing the problem and engraining new kinesthetic movements, the initial incorrect muscle memory may still bear influence. Incorrect muscle memory can also develop if the player, over an extended period of time, has allowed repetitive inconsistencies or inaccuracies to the point that the body becomes kinesthetically confused as to which version is correct. This may be a by-product of premature tempo increases or a general lack of discipline.

Problem spots caused by an imbalance between kinesthetic and mental retention usually reflect back upon the method used to learn the piece. Depending on the learning style of the player, the piece may have been learned mentally away from the instrument, kinesthetically at the instrument, or a combination of the two. All three scenarios are perfectly acceptable and do not necessarily determine whether or not problem spots will occur. However, a severe imbalance between the mental and kinesthetic approaches may result in problem spots.

Assuming the piece is adequately learned and understood, an imbalance containing too much kinesthetic retention and a lack of mental retention is revealed when the player can physically play the passage at the appropriate tempo, but is unable to name the notes out-loud or write them down on a staff, without the aid of the instrument. The player relies mostly on muscle memory and kinesthetic retention and does not sufficiently understand or retain the notes or rhythms on a mental level.

An imbalance in the opposite direction, containing too much mental retention and not enough kinesthetic retention, is revealed when the player fully comprehends all of the notes and the rhythms but has a difficult time playing at a tempo faster than they have rehearsed, even if well within their technical abilities. Another indication is when the player is unable to do mindless repetitions while thinking about or talking about something totally unrelated.

While an imbalance between kinesthetic and mental retention, as described above, can be successfully overcome during isolated time frames, this will only occur as long as the playing conditions and environment are ideal. Once they are confronted with mental or physical adversity of any type or magnitude, the imbalance does not allow the player to counteract or fill the void of the temporarily suspended dominant method.

This raises the question: *If both kinesthetic and mental methods are used equally in the learning process, will this eliminate all problems spots attributed to an imbalance between kinesthetic and mental retention?* Unfortunately, the answer is no. Steven Schick, who uses both kinesthetic and mental techniques in a very balanced and systematic method, stated that environment has a large impact on the presence of problem spots. He has found that problem spots belonging to this category “are caused when the learning process on the day that you memorized it was somehow slogged because of being distracted or sick.”¹ An environment in which the player is not able to totally focus, whether for personal reasons or exterior factors, can cause ‘glitches’ in the storage of data. For these reasons, Schick strongly advocates that the environment in which one learns the material is conducive to correct input.

Problem spots caused by technical deficiencies occur when the kinesthetic actions required to execute a passage are unable to be performed by the player. There are a multitude of technical skills that may be the source of the deficiency, but in all scenarios, these problem spots are independent of the specific passage of music and are a general deficiency of the player’s technical abilities. Problem spots caused by technical

¹ Steven Schick, personal interview, 31 Oct. 2012.

deficiencies are unique from the other two categories, incorrect muscle memory and an imbalance between kinesthetic and mental retention, in that typically, the passage has never, or only very rarely, been played correctly at tempo by the player.

~ Identify the Problem Spot ~

The first step to fixing a problem spot is to identify it. “If you can identify the problem, you can identify and implement a solution which will help you focus, concentrate, and facilitate a much more productive practice session,”² stated Noa Kageyama in his article *Nine Sources of Frustration in the Practice Room*. This may sound easy, but as Payton MacDonald explains, it sometimes requires “sophisticated analysis . . . If I’m not thinking about it carefully . . . sometimes [the problem] is not always what I might think it is.”³ Initially, it is easy to assume the problem is located where the mistake is being made. However Steven Schick points out that, “sometimes the problem is actually not where you’re making the mistake, sometimes the problem is somehow that you’re setting yourself up in the moments just before.”⁴

Identifying the precise problem spot is crucial to understanding both how to fix the issue and diagnose the player’s potential shortcomings. While it is possible for a problem spot to be a combination of all three categories, typically the root of the problem is grounded in just one category. Each category has its own challenges and require a different set of

² Noa Kageyama, “*Nine Sources of Frustration in the Practice Room*,” 23 Sept. 2012, *The Bullet Proof Musician*, 26 May 2013.

³ Payton MacDonald, personal interview, 3 Nov. 2012.

⁴ Steven Schick, personal interview, 31 Oct. 2012.

solutions and practice techniques. Although some practice methods work universally to solve all three types, most target a specific category.

“We are practicing not to play the right notes, but practicing to be *comfortable* playing the right notes,”⁵ said Christopher Deane. Once a problem spot is fixed, it must be engrained until the player feels totally comfortable. Fixing a problem spot is initially no more than a temporary patch. The player must first learn what they were doing incorrectly and then figure out what corrections need to be made. Next, the new version must be engrained until it is completely comfortable. According to Deane’s concept, a potential problem spot may be diagnosed before it is recognized, if the player’s comfort level is carefully analyzed. Although a passage may not be a problem spot at the moment, when a player feels discomfort, there’s a high probability that passage will later become an issue. If the problem can be caught early, initial bad habits can be avoided and broken before they are formed.

Problem spots can also be detected by using a recording device. Many times, especially early on in the process of learning a piece, there is much to think about and it’s easy to quickly dismiss or gloss over potential or developing problem spots. For this reason, recording a practice run-through may shed light on problem spots. Andy Harnsberger prefers to use “video too, not just audio” because it allows the player to see “what you are doing physically rather than just listening to it.”⁶ Younger players may recognize that certain spots sound bad or incorrect, but are unable to diagnose the precise problem.

⁵ Christopher Deane, personal interview, 12 Nov. 2010.

⁶ Andy Harnsberger, personal interview, 2 Nov. 2012.

Watching video footage usually reveals bad performance habits and points to the specific reasons why it sounds bad. Some issues like stroke type, body positioning, and playing spots are easily identified on video, but may be difficult to diagnose when listening to an audio recording.

In addition, sometimes problem spots go undetected for long periods of time because they are simply unheard or missed by the performer. As Blake Tyson explains it, “your brain fills in a lot of holes. Your brain wants it to sound a certain way and it sort of lies to you.”⁷ For this reason, the performer may not be aware of subtle issues until somebody else points them out. Sometimes, problem spots suddenly become apparent late in the process because of an increased level of execution. At this point, it is extremely difficult to fix since the incorrect version has been engrained for so long. For this reason, Don Green advises, in his book, *Performance Success*, to “make an audio or video tape [early in the process], to establish a benchmark of your current level of performance abilities. It will serve as the ‘before’ picture that will demonstrate your progress over the coming weeks.”⁸

“So if I were you, I would have that Zoom recorder out all the time,” advised John Parks. This doesn’t imply that every second of every practice session needs to be recorded, but do record “when you run the whole thing [to] see how it comes across.”⁹ Once all of the problem spots are identified using the various techniques described above, it is important

⁷ Blake Tyson, personal interview, 3 Nov. 2012.

⁸ Don Greene, *Performance Success: Performing Your Best Under Pressure*, (New York, NY: Broude, 1978), 13.

⁹ John Parks, personal interview, 12 Nov. 2011.

to label these passages so that they are not forgotten and progress can be monitored. As mentioned in Chapter 3, John Parks labels his problem spots using Greene's method of Post-it Notes. "Greens are 'I don't need to practice this, I can do it.' Yellows are, 'I need to touch it a little and then it will be OK', and Reds are, 'I need to spend a lot of work there.'"⁹ This method gives the player a defined structure for practicing their problem spots and is also a great way of monitoring progress. Eventually, all of the reds / 3's will turn to yellows / 2's, and all of the yellows / 2's will turn to greens / 1's, indicating the player is ready for performance.

Greene also uses Post-it Notes for another method, which he calls "process cueing." This method was first introduced in his book, *Performance Success*. Process cues are short phrases such as "smooth bowing [or] stay with it" that are used to trigger a certain thought process. When working on a problem spot, a particular adjustment is eventually made that fixes the problem. This usually takes a significant amount of time and effort to discover, so it would be unfortunate to forget. Process cues may be as simple as "warm, thin air stream [or] clean and easy," but these cues are extremely useful and remind the player exactly what they need to do or think to fix the problem. Greene suggests that by writing the process cue on a Post-it Note and placing it in the music, the performer will be much more successful in remembering how to fix the problem. As the player becomes more familiar with the process cues, the Post-it Notes may be removed, since by this point, the cues should be engrained mentally and forever associated with that spot, "as if it were attached."¹⁰

¹⁰ Don Greene, *Performance Success: Performing Your Best Under Pressure*, (New York, NY: Broude, 1978), 43.

In Mildred Chase's book, *Just Being at the Piano*, he emphasizes the importance of taking notes during practice sessions.

When I discovered a new awareness or as an insight came to me, I would make a brief notation. Before I began to keep a journal at the piano, awakenings would come over me [then] be forgotten . . . I finally brought a writing pad to the piano and whenever an idea took hold, I made a note. This helped me to remember the experience of a particular moment.¹¹

After the problem spots have all been identified, they now must be diagnosed so that a proper solution can be prescribed. Joakim Anterot starts by asking himself the question, “is it a technical problem that my muscles can't do or is it that my brain can't make it?”¹² Gary Cook will “analyze it a little bit and figure out . . . if it's mental, physical, or both?”¹³ He usually finds that most of his problem spots are both mental and physical.

If it is a physical problem, which category does it fall into? Is it an issue of incorrect muscle memory, unfamiliar kinesthetic movements, or a technical deficiency? When trying to diagnose physical problem spots in his own playing, Eric Willie finds it helpful to ask himself the following questions, “Is the problem a bad sound? Is the problem bad notes? Is it bad rhythm? Or is it just inconsistent note accuracy?”¹⁴ If it is a mental problem, does it stem from a lack of knowledge of the notes or piece? Is the information being recalled too slowly or with hesitations or are there frequent moments that lack focus? Once the problem spots are clearly identified, a proposed solution or plan of attack

¹¹ Mildred Chase, *Just Being at the Piano*, (Berkley, CA: Creative Arts Book Co., 1985), 2.

¹² Joakim Anterot, personal interview, 28 Oct. 2011.

¹³ Gary Cook, personal interview, 2 Nov. 2012.

¹⁴ Eric Willie, personal interview, 11 Nov. 2011.

can be implemented. There are many different ways of going about fixing problem spots, but depending on the type of problem, certain methods work better than others.

~ Incorrect Muscle Memory ~

As mentioned previously, problem spots caused by incorrect muscle memory occur when the body's kinesthetic actions have been engrained incorrectly. This can happen because incorrect muscle memory was initially inputted or because the body has been kinesthetically confused by inconsistent and inaccurate repetitions. The only way to fix problem spots that have occurred for these reasons is to re-train or re-program the body with the correct muscle memory. First, the pre-existing muscle memory must be eliminated. The only way to do this is to play the passage so extremely slowly, that familiar muscle memory is no longer being used. This usually requires playing the passage at quarter tempo or slower. If the player has an imbalance in their kinesthetic and mental retention, this will become suddenly apparent, as they will not be able to remember the notes at this extremely slow tempo. They have been so reliant on muscle memory, that taking it at a tempo in which there is no familiar muscle memory, will expose zero or very little mental retention.

After finding a tempo which uses no previously trained muscle memory, the new muscle memory can then be developed. To do this, the tempo must remain extremely slow. As John Lane explained, "creating the connection between the brain and the hands of where

the notes are . . . has to be done slowly.”¹⁵ Joshua Smith is another who recommended slow input, saying, “I can’t get it in physically if I do it fast.”¹⁶

In addition to teaching the body exactly how it should feel to play it correctly, playing it slowly allows Jason Nicholson to “figure out technically what [he] need(s) to do from a movement and kinesthetic standpoint.”¹⁷ So how slow is slow? It is hard to determine exactly how slow one should play below the threshold of escaping all previous muscle memory. Ben Wahlund advised that the tempo should be “slow enough to play everything perfectly every time.”¹⁸ Once this starting tempo has been established, the training of new muscle memory can begin. This takes extreme patience and discipline, especially when the player already knows the notes and knows how it sounds at tempo. For this reason, Blake Tyson believes that the “best way to practice those rough spots is with the metronome.”¹⁹

The key to retraining or learning correct muscle memory lies in the process of repetition. In Daniel Coyle’s book, *The Talent Code*, he explains that physiologically, retention of correct muscle memory is attributed to a “neural insulator called myelin.”

*When we fire our circuits in the right way - when we practice swinging a bat or playing that note - our myelin responds by wrapping layers of insulation around the neural circuit, each new layer adding a bit more skill and speed. The thicker the myelin gets, the better it insulates, and the faster and more accurate our movements and thoughts become.*²⁰

¹⁵ John Lane, personal interview, 12 Nov. 2011.

¹⁶ Joshua Smith, personal interview, 11 Nov. 2011.

¹⁷ Jason Nicholson, personal interview, 2 Nov. 2012.

¹⁸ Ben Wahlund, email interview, 31 Oct. 2012.

¹⁹ Blake Tyson, personal interview, 3 Nov. 2012.

²⁰ Daniel Coyle, *The Talent Code*, (New York, NY: Bantam Dell, 2009), 5.

The process for doing this varies from person to person, but all the percussionists interviewed shared one commonality, extremely high repetitions that increase in tempo at a very slow rate.

Omar Carmenates and Matthew Duvall both use a rule of ten repetitions before increasing the tempo. The only difference between their methods is that Carmenates increases his tempo by two beats per minute after completing ten successful repetitions, while Duvall only increases his tempo by one beat per minute. “[If] I’m working on quarter notes equals eight (bpm) . . . I’ll do it ten times. [If] that looks pretty good, now quarter note equals nine (bpm) and do that ten more times,”²¹ explained Duvall.

James Campbell uses a system called “looping.” He explained that looping is “where you take a shorter segment, set the metronome slower, and do it a hundred times in a row.” Campbell places a lot emphasis on doing correct repetitions every time so he remains at the same tempo until he has done three to five correct repetitions. “So if I play twice correctly and then make an error, I have to go back to three again,”²² explained Campbell. This method of looping allows him to make the most of his practice time, while enforcing and rewarding correct repetitions.

Jason Nicholson’s method utilizes a much higher number of repetitions than Carmenates, Duvall, and Campbell, but compensates by increasing his tempo at a quicker rate.

²¹ Matthew Duvall, personal interview, 1 Mar. 2013.

²² James Campbell, personal interview, 25 Mar. 2013.

Nicholson is “very methodical about doing it twenty times . . . [before] speeding it up ten metronome clicks and doing the same thing.” He finds by doing this slow and methodical practice, “in ten minutes, you have something worked out as opposed to just practicing it for two hours, running it over and over again.”²³

While all of these methods have a set process of repetition and tempo adjustments, Ben Wahlund’s method varies based on “how much time [he has] to practice a given problem spot . . . [He] “gauge(s) how meticulous” he can be in the “given amount of time . . . and gradually increases tempos at a rate that is fitting for the time allowed.”²⁴ Hans Jensen believes that this type of “repetition is used to convince yourself that what you’re doing is correct, and to establish everything as part of a sequence of motions. In that way, repetition allows you to merge a process into a single thought,”²⁵ said Jensen in his article, *The Case for Active Practicing*.

This method, in all its variations, of slowing down a passage and gradually working up to tempo is a proven and effective practice technique. All of the percussionists interviewed, except one, use this method to fix problem spots. The lone exception is Emil Richards, who said, “To try and slow down and go thru that whole process would slow you down like crazy.”²⁶ Richards’ philosophy likely stems from his career in the recording industry, where time is money. Although he was alone in this regard, a few of the percussionists interviewed also mentioned drawbacks to working on a problem spot from slow to fast.

²³ Jason Nicholson, personal interview, 2 Nov. 2012.

²⁴ Ben Wahlund, email interview, 31 Oct. 2012.

²⁵ Hans Jensen, “*The Case for Active Practicing*,” 10 Dec. 2011, Ovation Press String Visions, 27 May 2013, <<http://stringvisions.ovationpress.com/2011/12/the-case-for-active-practicing/>>.

²⁶ Emil Richards, personal interview, 3 Nov. 2012.

Stickings can be a concern when starting at extremely slow tempos. Sometimes when the stickings used at a slow tempo are tried “at tempo, it won’t work,” explained Jason Nicholson. To check for this problem and avoid learning something that won’t eventually work, Nicholson said that he will “jump up [in tempo], after I’ve gotten it down a little bit, to make sure everything’s ok.”²⁷

Instead of practicing problem spots extremely slowly, Thomas Burritt simply relies on pure repetition. “I’m just going to play it over and over and over until it’s there.” He feels that sometimes, when a piece is slowed down too much, “you cease to play it musically.”

*I think we are really guilty of that sometimes. That motion you might use in slowing it down is probably not helpful in a musical situation. That’s why I like to push through those things sometimes and not force myself to use a different motion than I’m going to at tempo or in a real musical situation. I want to play musically every time I make a sound.*²⁸

Brian Nozny agrees with Burritt, but has learned that by “exaggerating everything, exaggerated movements and exaggerated dynamics,” musical gestures and movements at slow tempos can be maintained. Once a “ridiculously wide”²⁹ spectrum is developed, when the tempo is increased, these elements can be minimized to fit the context.

Unrelated to sticking and musicality issues, some problem spots don’t lend themselves well to practicing at a slower tempo due to stroke types. When practicing slowly, a certain stroke type is used, but sometimes it is a different stroke type than what is used at tempo.

²⁷ Jason Nicholson, personal interview, 2 Nov. 2012.

²⁸ Thomas Burritt, personal interview, 3 Nov. 2012.

²⁹ Brian Nozny, personal interview, 30 May 2012.

Due to this stroke type change, the muscle memory created at a slower tempo will be incorrect. For example, when playing a one handed roll on the marimba at a slow tempo, it turns into single alternating strokes, which is a completely different stroke type and feel than a one-handed roll. This is also true when playing at extremely fast tempos. The motions are initiated from a completely different part of the body. On the marimba when playing slow, the motion comes from the elbow, forearm, and wrist. At extremely fast tempos, there is usually just one initial movement from the elbow, minimal wrist motion, and a lot of finger motion. For these situations, Brian Nozny and John Lane use an additive practice method. This method fragments the passage into very small chunks, often times only one note. After correctly playing the first fragment at tempo, the second fragment is added. After playing both the first and second fragments together successfully at tempo, the third fragment is added and this process is repeated until the entire passage has been added, all at performance tempo.

John Lane uses this same additive process, which he initially learned from Kenny Warner, a jazz pianist. Lane uses this additive process when practicing “fast passages.”³⁰ Similar to Nozny, Lane starts with “the first note of the lick”²⁹ and continuously adds one note at a time until the passage is complete. This method can be abbreviated by increasing the size of the first fragment to include the material leading up to the problem spot while maintaining the short chunks of the subsequent fragments. The second fragment would therefore begin on the note most commonly missed. By repeatedly releasing the phrase on this note, the correct muscle memory is continuously reinforced.

³⁰ John Lane, personal interview, 12 Nov. 2011.

Regardless of how slow or fast the problem spot is played, the most important factor in building correct muscle memory is a high volume of correct repetitions. Although slowing down the tempo enables most people to achieve that, creating correct muscle memory is ultimately determined by engraining correct repetitions. Paul Rennick believes that all this goes back to Christopher Deane's point about being comfortable.

Every drummer can play a rock groove; think about how comfortable it is. If I asked you to stand up in the audience and play two and four on a drum-set, rarely would somebody get nervous. They would simply do it and it would be comfortable. Well that's because the comfort level of that is related to the repetition of it. How many times have you done that? A million times? So that makes you feel comfortable. You have to try to get to that point with everything else you play. The more comfortable you are, the less your mind will race, and the more stable you'll be when you perform.³¹

Isolate and Surround

Running stuff from the front to the back and just playing stuff over and over again only reinforces mistakes.³² - Jason Nicholson

Practicing in the manner Nicholson describes is incredibly inefficient and commonly leads to problem spots caused by incorrect muscle memory. Reinforcing mistakes leads to kinesthetic confusion, making it nearly impossible to play the right version during a performance. Noa Kageyama, author of, *How to Care More Without Putting Too Much Pressure On Yourself*, states that this type of inaccurate practice “strengthens undesirable habits and errors . . . adding to the amount of future practice time you will need in order

³¹ Paul Rennick, personal interview, 12 Nov. 2011.

³² Jason Nicholson, personal interview, 2 Nov. 2012.

to eliminate these bad habits and tendencies.”³³ The opposite method of this approach is to isolate and surround. As Michael Burritt described it, “My best method is I attack it and then I surround it . . . circle the wagon.”³⁴

When Christopher Deane is isolating a spot, he takes the mentality that “every measure is an etude . . . I feel it is better to work for three minutes on one measure than three hours on one page and not have anything to show for it.”³⁵ John Parks agrees with Deane and always tries to “excerpt the excerpts.”³⁶ Although this may seem tedious and time consuming, in actuality, it is quicker, as Omar Carmenates points out. “I try to be really smart about identifying only the problem spots [because] . . . that’s all you need to practice.” If the precise moment within the passage that is causing the problem can be identified and isolated, “one rep of that takes about half a second. You can get fifteen reps of that in twenty seconds, with a few beats in between.”³⁷

Having the discipline to focus and practice one isolated spot can be difficult, so Deane uses a method that he calls “putting your piece in Stone,” which refers to the one bar exercises in George Lawrence Stone’s books, *Stick Control* and *Accents and Rebounds*. “Take Post-It Notes and isolate one bar. The eye likes to wander, but this won’t let you go farther than one bar. Putting Post-It Notes on that one page [and] limiting it to that one brief period . . . keeps me honest.”

³³ Noa Kageyama, “How to Care More Without Putting Too Much Pressure On Yourself,” 16 Sept. 2012, *The Bullet Proof Musician*, 26 May 2013.

³⁴ Michael Burritt, personal interview, 20 Jan. 2013.

³⁵ Christopher Deane, personal interview, 12 Nov. 2010.

³⁶ John Parks, personal interview, 12 Nov. 2011.

³⁷ Omar Carmenates, personal interview, 12 Nov. 2011.

Deane also added that it helps to practice this method with a timer to regulate how long each section is practiced. Deane is “a big believer of the timer,”³⁵ and like Post-it Notes, it doesn’t allow the player to pre-maturely progress onto the next section. The timer promotes short, but extremely focused pockets of practice. Andy Harnsberger believes that this is the only productive way to practice because “your brain will only allow you to focus intensely for a short period of time . . . If you try to isolate a problem spot for several hours you aren’t going to get as much done as if you take it five minutes at a time here and there. For me, that’s been really effective, short bursts of really pounding it for five minutes.”³⁸

After practicing the issue in isolation, Gary Cook believes it’s important to practice “the transition into and out of it . . . A lot of people don’t do that. They just practice the spot and then it’s still a spot rather than connect and make the transitions.”³⁹ Michael Burritt agrees with Gary Cook and adds that the transitions are usually what make the passage difficult. “I can fix the issue if I’m playing just that spot, but more often, it’s what happens before it, or sometimes after it, that causes me to be uncomfortable with it.”⁴⁰

³⁸ Andy Harnsberger, personal interview, 2 Nov. 2012.

³⁹ Gary Cook, personal interview, 2 Nov. 2012.

⁴⁰ Michael Burritt, personal interview, 20 Jan. 2013.

Brian Mason has a standard process for isolating and surrounding a problem spot.

I'll literally go to that place where I made that mistake and I'll go to the one beat before it and one beat after it, and I'll play that until I have it down. Then I'll back up a beat and add a beat, and over the course of time, I'm ironing out the wrinkles. I'm getting lots of reps on whatever the problem is and being able to get into it and get out of it with confidence.⁴¹

Joshua Smith uses a very similar method. He starts at the “point of destruction” and works outwards, keeping it “equal on either side.”⁴²

~ Imbalance of Kinesthetic and Mental Retention ~

When problem spots are attributed to mental breakdowns, they are usually caused by an imbalance between kinesthetic and mental retention. Although physical problems can also be categorized as an imbalance, mental problems are much more common to this category. The most common situation occurs when the player relies too heavily on their muscle memory and lacks mental retention. When this is the case, if the muscle memory is temporarily lost or suspended, the player does not have the safety net of mental retention to fill the void.

Most mental problem spots occur during transitions. This is because music is typically practiced, learned, and rehearsed in sections. This results in weaker muscle memory during the transitions. If the player isn't familiar with the form of the piece or has a hard

⁴¹ Brian Mason, personal interview, 10 Mar. 2013.

⁴² Joshua Smith, personal interview, 11 Nov. 2011.

time remembering the order of sections, they will be unable to recover when their muscle memory fails.

To strengthen mental retention and gain a better understanding of how the transitions fit together, Brett Dietz believes it is “very important . . . to think more about the music than to practice it . . . I’m thinking about the piece and thinking about how it goes. I’m going through it in my mind or while I’m studying the score and finding things out about the score that I didn’t know before I start learning it.”⁴³

Emil Richards agrees that practicing away from the instrument is key to building mental retention. He likes to “stay in bed for an hour” in the morning and “practice mentally” while his “mind is bright and alert . . . I visualize the music and I visualize playing on that instrument,”⁴⁴ explained Richards, enabling him to rely completely on mental retention if desired.

Mental practice can be a difficult skill to develop. In Don Greene’s book, *Performance Success*, he describes that mental practice of a problem spot should be done in a repetitive manner.

*If you imagine missing a shift, hit a stop button on your mental VCR immediately. Rewind to a place before the mistake. Start from that point, moving slowly forward at a speed you can control. Repeat this process several times, just as you would in real practice, until you can perform it well in your mind in real time.*⁴⁵

⁴³ Brett Dietz, personal interview, 1 Nov. 2012.

⁴⁴ Emil Richards, personal interview, 3 Nov. 2012.

⁴⁵ Don Greene, *Performance Success: Performing Your Best Under Pressure*, (New York, NY: Broude, 1978), 58.

When problem spots can be played correctly in isolation, but rarely go well during run-throughs or in the context of a larger section, this may be the result of two unrelated issues. The first issue may be that the player does not mentally focus on the correct thing. As discussed earlier, when a physically related problem is fixed, the solution must be remembered and applied thereafter. If the performer forgets to trigger their ‘process cue’ during a run-through, the problem is now attributed to a lack of mental retention, not a breakdown in muscle memory or technique. In Hans Jensen’s article, *The Case for Active Practicing*, he explains that although the “mental pathways you . . . created [aren’t retrieving properly] this doesn’t mean that your practice was lost: in fact, it probably means that your subconscious is [still] processing it.”⁴⁶

The second reason why some problem spots may be easy in isolation but difficult in context can be attributed to a mental block or fear associated with the passage. When this is the case, Michael Burritt tries to remind himself to “relax and do the best [he] can.” These problem spots “mostly come from stress or anxiety . . . and we hurry too much in our problem spot or do not concentrate through it . . . [Tell] yourself to relax and lay back in the problem spot and hopefully in doing that, you’ll get through it ok.”⁴⁷

When Thomas Burritt is faced with this same type of issue, he finds that “most of the time, it’s just willing it to happen.” When this still does not work, Burritt has found that “just letting it go” can sometimes fix it. “There’s evidence that suggests our brain learns

⁴⁶ Hans Jensen, “*The Case for Active Practicing*,” 10 Dec. 2011, Ovation Press String Visions, 27 May 2013, <<http://stringvisions.ovationpress.com/2011/12/the-case-for-active-practicing/>>.

⁴⁷ Michael Burritt, personal interview, 20 Jan. 2013.

when we sleep. So sometimes I'll take a day or two and leave it and when I come back, it's better. I don't know why this happens but I've experienced it numerous times.”⁴⁸

Blake Tyson has experienced this same phenomenon. “Sometimes the best way to practice problem spots is to quit practicing them. Sometimes it is best to sleep on it for a few days.” If the passage is fully understood, “let your brain figure it out.” Besides, dwelling on a problem spot caused by mental issues, can be a waste of practice time. Tyson suggests, “Say ‘forget it’ and practice the stuff you can play. You can make progress on the piece and come back to [the problem spot] in a few days.”⁴⁹ The brain is extremely powerful and mental blocks can sometimes be solved just as easily as they can be formed. Anders Holdar uses this same approach and believes it's important to know when “to leave the problem and not be stuck in the problem.” There comes a point when “you are spoiling your time because you cannot fill your brain with more . . . you must leave it and sleep. Relax and do other things.” If relentless practice is continued, not only is it a waste of time, but it “can build up a fear . . . [of] the difficult place.”⁵⁰

In Don Gorrie's book, *Performing in the Zone*, he advises to “be patient . . . It is not unusual to experience these internal blocks or mental barriers in your journey . . . give yourself the time you need to take further steps in the right direction.”⁵¹ This concept of setting aside a problem and coming back to it later has influenced Frederic Macarez's teaching style. He has found that this same principle can be applied to the preparation of

⁴⁸ Thomas Burritt, personal interview, 3 Nov. 2012.

⁴⁹ Blake Tyson, personal interview, 3 Nov. 2012.

⁵⁰ Anders Holdar, personal interview, 28 Oct. 2011.

⁵¹ Jon Gorrie, *Performing in the Zone*, (Seattle, WA: CreateSpace/Amazon, 2009), 176.

an entire work. Instead of learning a piece of music, performing it, and then moving on to the next piece, Macarez has his students learn a piece, move on to “something else and then after two or three months . . . get back to the first one and play it again.”⁵² He finds that this results in a more comfortable and successful performance of the piece.

When a certain level of musicianship is achieved in one’s career, technical deficiencies should rarely be the cause of problem spots. Having played large amounts of repertoire, there should be an in depth understanding of the instrument and technique. When this is achieved, playing the instrument becomes mostly mental. Once music is understood and absorbed mentally, proficient technique allows the player to express it on their instrument with ease. Emil Richards is a perfect example of this level of mastery. His technique and familiarity with the instruments allow him to express whatever he can understand with his mind. This enables him to do much of his practicing mentally. “I practice in my head a lot more than I do on an instrument,” said Richards. “I’m so used to practicing for so many years that it’s engrained. Now, I can really do it mentally and get as much accomplished.”⁵³

Frederic Macarez has also reached this level of mastery, but some of that was developed from necessity. “When you travel or when you are busy you cannot practice on the instruments, just read.” Through thinking and visualization, “ninety-nine percent” of the work can be done “without the instrument.”⁵² When Macarez was younger he practiced a lot, but now he practices much less because he has learned to practice with his mind.

⁵²Frederic Macarez, personal interview, 27 Oct. 2012.

⁵³ Emil Richards, personal interview, 3 Nov. 2012.

~ Technical Deficiencies ~

Problem spots caused by technical deficiencies are generally the most common type of problem spot. When the kinesthetic actions required to execute a passage are unable to be performed by the player, the first step to fixing it is diagnosing it. According to Matthew Duvall, all technical deficiencies belong to one of three categories. They can be either, “something technical that needs to be fixed, something technical that needs to be adapted, or something that is never going to work [because] . . . [it] is idiomatically inappropriate for the instrument.”⁵⁴

If the problem lies in the first category, something technical that needs to be fixed, it is a general deficiency of the player and should be practiced independently of the specific passage or piece. When this is the case, Ben Wahlund “embrace(s) them as an opportunity to grow, not a shortcoming on my part or a stressful affectation of the composer.”⁵⁵ If the problem lies in the second category, something technical that needs to be adapted, an exercise should be created from elements of the piece or in the same style of the piece. If the problem lies in the third category, something idiomatically inappropriate for the instrument, Brian Nozny suggests checking out “two or three recordings to see how [other] people handled it. Did they all do the exact same thing?”⁵⁶ If there aren’t any existing recordings or reasonable solutions, it’s probably “always going to be a problem,”⁵⁴ said Duvall.

⁵⁴ Matthew Duvall, personal interview, 1 Mar. 2013.

⁵⁵ Ben Wahlund, email interview, 31 Oct. 2012.

⁵⁶ Brian Nozny, personal interview, 30 May 2012.

Technical deficiencies, belonging to the first two categories can be solved in a number of ways. Seven of the thirty-six percussionists interviewed prefer to create technical exercises that isolate and develop the technical deficiency.

For instance, Jason Baker's practice of problem spots revolves around creating "little exercises" that work on all of the technically challenging elements of the piece. Once the exercises are created, he spends more of his practice time on the "techniques needed to perform the piece," than the piece itself. "If you can do the techniques and you know the theory behind it, the piece is just a combination of those two things." Baker also finds that he "can practice longer and not get burned out or hit a wall" because he's not practicing the piece. In the grand scheme of things, developing the skills to play the piece is more important than being able to play that specific piece. "I'm just using the piece as a way to come up with exercises"⁵⁷ and improve as a player, said Baker. In essence, individual pieces are merely small stepping-stones in the development of one's musical abilities.

Unfortunately, technical abilities aren't something that can be developed once and retained forever. Gordon Stout and Payton MacDonald both create technical exercises not to learn or develop a new technique, but to "build some muscle" for passages that require more "chops,"⁵⁸ explained MacDonald. Many chop exercises, as well as most technical exercises, can be played away from the instrument. Robert Schietroma does "a lot of

⁵⁷ Jason Baker, personal interview, 11 Nov. 2011.

⁵⁸ Payton MacDonald, personal interview, 3 Nov. 2012.

floor practicing . . . I just sit on the floor and lean up against a couch or something comfortable and just play. I watch the news every night and I practice all my marimba exercises.”⁵⁹ Also, floor exercises are great for building chops because, as Schietroma pointed out, it is easy to watch television or do other activities to distract the brain from the uncomfortable muscle burn required to build better chops.

Mark Ford is another advocate of floor exercises and his article titled *Marimba Floor Exercises* points out the many advantages of practicing away from the instrument. Practicing away from the instrument allows the player to develop confidence and coordination without worrying about hitting the right notes. They improve comfort with the grip, strokes, and permutations such as sequences, patterns, and combinations. Floor exercises allow players who don’t have access to an instrument, to practice anywhere, maximizing practice time efficiency.

The second category of technical deficiencies, something technical that needs to be adapted, occur when the technical deficiency is not the technique itself, but caused by an awkward or unconventional application of the technique unique to that piece. Payton MacDonald views these kind of problem spots as opportunities to “build coordination.”⁶⁰ While the techniques are familiar and can be performed out of context, in the context of the piece, they challenge the performer to move in an orthodox manner or create original hybrid techniques through the combining of two contrasting, yet familiar techniques.

⁵⁹ Robert Schietroma, personal interview, 3 Nov. 2012.

⁶⁰ Payton MacDonald, personal interview, 3 Nov. 2012.

When this is the case, Brian Zator creates exercises that specifically use “those ideas in music.” This usually results in an exercise that sounds very similar to the piece, almost in an improvisatory style. For example, when Zator is working on a choral with difficult and large shifts between chords, he will play the choral using “quadruple stops with thirty-second note or sixteenth note triplets” instead of a normal roll. “Then I split it up so you are playing thirty-second note sextuplets, so I’m getting that shifting, but trying to make the line as smooth as possible.” When doing this exercise, he focuses on creating “a smooth vertical motion but a very fast and precise horizontal motion.”⁶¹

Many of the percussionists interviewed, integrate their technical deficiency exercises into their warm-up routine. Andy Harnsberger always dedicates “the last five or ten minutes of [his] warm up routine to . . . problem areas.”⁶² Similarly, Brian Nozny incorporates technique exercises from the pieces that he’s working on into “into [his] warm-up in some way.”⁶³

Hands Separate

In rare instances, the player may be unsure what exactly in the passage is causing the technical difficulties. Sometimes when difficult passage analyzed, the utilized techniques don’t reveal any deficiencies.

⁶¹ Brian Zator, personal interview, 2 Nov. 2012.

⁶² Andy Harnsberger, personal interview, 2 Nov. 2012.

⁶³ Brian Nozny, personal interview, 30 May 2012.

A good way to reveal a hidden deficiency is to play the hands separately. It is sometimes difficult to see what each hand is doing individually when they are being played together, but playing each hand in isolation will typically unveil the technical difficulty. Kevin Bobo uses this technique in other aspects of his practicing, but finds that when one hand can be focused on individually, it results in a better comprehension of the technical challenges and usually leads to a quicker solution of the problem spot. Bobo often finds that technical difficulties are related to where his eyes must look while playing.⁶⁴ Throughout the learning process of any piece, the brain subconsciously determines where to look to ensure the most accurate outcome. Sometimes however, both hands require visual assistance. This can be hard to discover without doing hands separate.

Brian Zator also points out that by playing hands separately, it is easier to analyze the “stroke type.”⁶⁵ One hand might be doing an unnatural stroke type, which may be causing a technical problem. I-Jen Fang also practices problem spots hands separately because. “If you can do just one hand at a time, that means you really know it,” said Fang. She learned this technique from her piano studies, “I was a pianist and we always started with one hand at a time.”⁶⁶

Julie Licata also practices hands separately because it helps her with “coordination issue(s) . . . No matter what instrument it’s on, I will find the right hand notes and play

⁶⁴ Kevin Bobo, personal interview, 13 Nov. 2010.

⁶⁵ Brian Zator, personal interview, 2 Nov. 2012.

⁶⁶ I-Jen Fang, personal interview, 11 Nov. 2011.

those in the rhythm.” After she has worked up one hand at a time, she begins “trying to slowly put them back together.”⁶⁷

While playing hands separately may expose technical difficulties, sometimes playing one hand without the other is difficult to do. For this reason, learning how to play hands separately may actually be more challenging than the problem itself. John Park’s philosophy emphasizes practicing technical deficiencies by simplifying the passage to make it easier. Once this is mastered, he slowly adds the parameters back in. John Parks believes that it is important to “always feel good about what you are doing . . . [make] the best use of the time that you have, [and] also feel good about what you are accomplishing.” For example, when Parks practices *Lieutenant Kijé* by Sergei Prokofiev, he makes “it easy first” by playing it “loud and slow . . . Do that over and over and over again so that you feel good about what you are doing and really the only difference is the tempo and the dynamic.” Once this feels totally comfortable, start increasing the tempo and “for every click that you get closer to the tempo, take it down dynamically.”⁶⁸

Tempo

Fixing a technical deficiency can also be done by playing “it very slowly” so that the player can figure out exactly needs to be done from “a movement and kinesthetic

⁶⁷ Julie Licata, personal interview, 12 Nov. 2011.

⁶⁸ John Parks, personal interview, 12 Nov. 2011.

standpoint,”⁶⁹ said Jason Nicholson. Sometimes a simple shifting of body positioning or raising an elbow can make a huge difference in the technical execution of a passage.

In contrast, sometimes practicing technical deficiencies at a slow tempo “doesn’t always work,” said Frederic Macarez. He instead recommends practicing them “in tempo . . . just to have a physical idea of what is possible or not.” Stickings and stroke types are usually the two the most common issue regarding tempo, but once they have been tested at tempo, “you can practice slowly and increase the tempo.”⁷⁰ After slowing it down and working back up to performance tempo, Brian Nozny tries to go “eight or twelve clicks beyond that.” Once going “beyond the ceiling,”⁷¹ Nozny finds it much easier to play it at tempo because it no longer feels like maximum tempo.

~ Conclusion ~

Problem spots occur for three reasons: incorrect muscle memory, imbalance between kinesthetic and mental retention, and technical deficiencies. Each of these causes have very different practice methods and solutions, which is why it is important to first diagnose the problem spot accurately before attempting to fix it. Overcoming bad habits, increasing mental retention, and correcting technical shortcomings are all difficult and tedious undertakings that require time and perseverance.

⁶⁹ Jason Nicholson, personal interview, 2 Nov. 2012.

⁷⁰ Frederic Macarez, personal interview, 27 Oct. 2012.

⁷¹ Brian Nozny, personal interview, 30 May 2012.

The old saying that ‘practice makes perfect’ is only true in one scenario, when the player practices perfectly. While this saying delivers a positive message and can be extremely powerful idea, ‘practice makes permanent’ is a much more accurate statement. Often times, problem spots are self-inflicted, created by the player’s poor practice habits. Whether the tempo is increased too quickly, incorrect repetitions are allowed and reiterated, or there is a simple failure to notice details, problem spots are not always a product of deficiency.

For this reason, every problem spot has its own set of challenges and lessons to be learned, but through the process of fixing it, invaluable skills and lessons will be acquired. After all, that is how musicians learn and eventually master their instruments. Thus, each problem spot should be approached and valued as an opportunity to improve. .

Figure 21: Survey – Problem Spots

A. Identify Problems Spot	If yes, try method...
Are your problem spots inconsistent?	A1, A4
Do you dislike working on problem spots?	A3
Do you have a hard time determining your problem spots?	A1, A2
Do you have a hard time making yourself work on problems spots?	A3
Are some of your problem spots related to sound quality?	A2
Are you motivated most by goal setting?	A3
B. Incorrect Muscle Memory	If yes, try method...
Do some of your problem spots appear later in your preparation?	B1
Are you playing a piece that uses rubato?	B3
Do you often fix problem spots only for them to reoccur during the run through?	B4
Are your problem spots usually tempo related?	B3
Did you learn the part wrong initially?	B2
Does the problem spot feel physically awkward?	B1, B2
Do your problem spots occur sporadically?	B2
C. Imbalance of Kinesthetic and Mental Retention	If yes, try method...
Do transitions give you the most troubles?	C1, C2
Are you able to play the problem spot in isolation but not in context?	C3, C4
Do you fear your problem spots in a performance?	C4, C5
Have you practiced a problem spot repeatedly with little success?	C5
Do you typically stop and start during your problem spots?	C2
D. Technical Deficiencies	If yes, try method...
Do you get tired of practicing the same problem spots?	D1, D2
Do you not have enough practice time to work on all your problem spots?	D3, D4, D9
Do you have similar problem spots in different pieces of music?	D1, D4
Does the problem spot appear easy but for some reason gives you a lot of trouble?	D5
Is your problem spot related to dynamic difficulty?	D6
Is your problem spot tempo related?	D7, D8
Is your problem spot due to awkward stickings or shifts?	D9
Is your problem spot extremely complex musically?	D6

Figure 22: Outline – Problem Spots

Method	Pages
A. Identify Problem Spot <ol style="list-style-type: none">1. Assess Comfort Level2. Recording Device3. Post-it Notes4. Determine Cause – Mental / Physical	170-175
B. Incorrect Muscle Memory <ol style="list-style-type: none">1. Slow Practice2. High Repetition3. Additive Method4. Isolate and Surround	178-187
C. Imbalance of Kinesthetic and Mental Retention <ol style="list-style-type: none">1. Score Study2. Mental Practice3. Process Cues4. Break Down Mental Block5. Take a Break	187-192
D. Technical Deficiencies <ol style="list-style-type: none">1. Practice Technique Independent from Music2. Create Exercise from Music3. Floor Exercises4. Incorporate into Warm-up Routine5. Hands Separate6. Simplify Passage7. Diagnosis at Slow Tempo8. Play Faster than Written Tempo9. Examine Pre-existing Recordings	192-198

CHAPTER 7: PERFORMANCE PREPARATION

Musicians express their musical talent and hard work through performance. It can take place in many different venues and contexts and serve a variety of purposes. For the audience, it is a time to be entertained, educated, and challenged, but for the performer, it is the ultimate test of their preparation and poise. With expectations high all around, a performance can be extremely stressful for the performer and result in an experience ranging from exhilarating to heartbreaking. The preparation for these monumental moments varies greatly from one performer to the next, and may be altered depending on the situation. Similar to most professionals in the modern world, performers face a never-ending battle between time and preparation, as they struggle to continuously meet a series of deadlines.

~ Preparation Time Table ~

*If you don't know it by a certain point, you're not going to cram it in the night before or the week before. So if I have a performance coming up, I try and figure out a schedule to pace myself.*¹ - Gary Cook

Performance preparation has a very ambiguous nature to it. When is one done preparing for a performance? Is there a definitive sign that shows completion? Is over preparation possible? Is the performance itself an accurate critique of the preparation? Predictably,

¹ Gary Cook, personal interview, 2 Nov. 2012.

the answers to these and many other performance preparation questions vary greatly depending on the performer.

Performance preparation is not marked by the completion of learning the music. Once the music has been learned, time is needed to review and polish the material to establish a certain level of comfort and self-expression. How much time is needed to complete this last step of the process depends primarily on the person.

Brian Nozny stated, “a month out, ideally I’ve got the piece learned”² while Steven Schick sets a goal of being able to run through the piece only “ten days before the performance.”³ James Campbell wants to be able to do a run-through at tempo “five days before the performance,”⁴ while Eric Willie desires a little more buffer time, saying, “no matter what it is, an orchestral audition, performance, recital, etc.,” I should be able “to run the entire piece at tempo”⁵ at least two weeks prior to the performance.

Julie Licata tries to have a piece polished and “ready to play”⁶ for performance two weeks prior, while Steven Schick tries to time his preparation perfectly so that he peaks “right at the performance with a sort of punctual run through level.”⁷

² Brian Nozny, personal interview, 30 May 2012.

³ Steven Schick, personal interview, 31 Oct. 2012.

⁴ James Campbell, personal interview, 25 Mar. 2013.

⁵ Eric Willie, personal interview, 11 Nov. 2011.

⁶ Julie Licata, personal interview, 12 Nov. 2011.

⁷ Steven Schick, personal interview, 31 Oct. 2012.

At the far end of that spectrum is Matthew Duvall, who believes that “if you are not prepared for your recital about six months in advance, then you really aren’t going to be ready.” Instead of using the next six months to do run-throughs and practice, Duvall tries to “learn the repertoire early enough in the process so that you can put it away for six weeks, and then bring it back. That is when you really learn it.”⁸

~ Practice Habits Leading up to Performance ~

Habits Don’t Change

Most of the percussionists interviewed change their practice habits in a variety of ways as the performance draws nearer. In contrast, seven of the thirty-six percussionists interviewed indicated that they do not change any of their practice habits as they get closer to performance.

Frederic Macarez, for instance, views “the performance as just one more practice session,” and doesn’t alter his routine. As long as he stays on schedule, the performance should be a natural continuation of the practice process. Emil Richards doesn’t alter his practice habits either as he approaches a performance. “I don’t build up to anything. I go right for where it’s supposed to be. I’ve been doing that my whole life. It’s my process.”⁹

⁸ Matthew Duvall, personal interview, 1 Mar. 2013.

⁹ Frederic Macarez, personal interview, 27 Oct. 2012.

Practice More

Maintaining a disciplined practice routine that allows the performance to be a natural step in the process sounds sensible and even ideal. However, for a variety of reasons, most people don't follow this methodical approach and end up intensifying their effort as their deadline approaches. This usually results in an increased amount of practice time leading up to the performance. Ben Wahlund admitted that "while in principle I feel a person should allocate an equal amount of time for every day of practice as he or she approaches a performance, I normally end of 'cramming' for performances."¹⁰ Cramming works surprisingly well for some people and isn't synonymous with mediocrity.

Not all people who practice more leading up to a performance do it as a last resort or wish they had followed a more regimented plan. Some individuals operate best when their practice hours leading up to the performance steadily increase. For them, the added hours help develop an increased level of familiarity with the material, providing a new level of focus and confidence. Paul Rennick, for instance, intentionally increases his practice hours leading up to the performance and views it as an organic process. "Naturally, you just focus more time," explained Rennick. "It's a build up to this moment in time when you are performing."¹¹

¹⁰ Ben Wahlund, email interview, 31 Oct. 2012.

¹¹ Paul Rennick, personal interview, 12 Nov. 2011.

Practice Less

Among those interviewed who do not intensify their preparation as the performance approaches is Omar Carmenates, who said, “when you are running, the week before a race is called a taper. [This is] where you start pulling back the miles so that you are stronger the day of your run. I actually taper before my performance,” said Omar Carmenates. This is a very different approach than gradually increasing practice hours, and “only works if the process took place from day one,” explained Carmenates. This method is dependent on being prepared well before the performance date and knowing which parts need to be practiced. He has found that “pulling back the hours” leading up to the performance helps eliminate nervousness and anxiety. “I try not to make it a crescendo, because that just makes you more nervous about it. I try to make it a decrescendo.”¹² I-Jen Fang also practices less the “week before” a performance. “I try to run through it and if I feel good, I just leave it . . . I don’t practice too much.” If during the run through, “there are problem spots, I only work on the problem spots and then at the end of the session, I run through it again and that’s it.”¹³ Practicing less leading up to a performance may seem counterintuitive to some, but what Brett Dietz does is even more unexpected. He stops playing altogether “for a couple of days.” He has discovered that when he takes “a break from a piece two or three days before the performance or concert, it is better when I go back to it.”¹⁴

¹² Omar Carmenates, personal interview, 12 Nov. 2011.

¹³ I-Jen Fang, personal interview, 11 Nov. 2011.

¹⁴ Brett Dietz, personal interview, 1 Nov. 2012.

Mental Practice

Julie Licata also cuts back her practice hours the “two or three weeks” leading up to the performance. “I don’t want to burn myself out physically and musically . . . by playing it too much and over express or overstate things that I feel in the music.” To ensure a fresh performance, Licata devotes “Fifty percent of my practice time” to mental practice away from the instrument. “I do three different types of visualizations: visualizing the physical playing, my physical relation to the instrument (air play the piece), and also the visual relation to the actual music, like sheet music.” Developing the ability and discipline to visualize a piece using three different forms of visualization is remarkable, not to mention time consuming. “A ten minute marimba solo would take me thirty minutes to visualize,” explained Licata. After developing this level of concentration, doing a normal run-through on the instrument goes “by really fast,”¹⁵ said Licata. In Gerald Klickstein’s book, *The Musician’s Way*, he believes that when one can visualize a piece, “your awareness of your material will anchor your control and set your creativity free.”¹⁶

Gordon Stout and Gary Cook also use mental practice when preparing for a performance, but unlike Licata, their habits were initially developed out of necessity.

*Early in my professional career, which was also early in my college career, practicing would suffer over preparing for teaching, because I was getting paid to teach – not to practice. So I’d go, ‘holy crap, I’ve got to fly to so and so tomorrow, and I haven’t played in weeks.’ So I learned how to mentally practice on the plane.*¹⁷ - Gordon Stout

¹⁵ Julie Licata, personal interview, 12 Nov. 2011.

¹⁶ Gerald Klickstein, *The Musician’s Way: A Guide to Practice, Performance, and Wellness*, (New York, NY: Oxford University Press, 2009), 37.

¹⁷ Gordon Stout, personal interview, 3 Nov. 2012.

I went on a ski trip with my brother for a week and had to come back and play two or three rags with the orchestra a day later. So I had a copy of the rags in my ski coat and we'd go up the chair lift and I'd visually play through it and kind of air drum it; air xylophone it, I guess you'd call it. And if I'd get to a point where I wasn't sure of a note or something I'd pull out the old wrinkly copy and look at it. So I did that for a week, I didn't touch an instrument.¹⁸ - Gary Cook

According to Noa Kageyama in his article, *Does Mental Practice Work?* “mental practice activates the same brain regions as physical practice, and may even lead to the same changes in neural structure and synaptic connectivity.”¹⁹

Change Focus

On stage, the performer's musical goals are to convey certain moods, emotions, and ideas to the audience. Those goals are not likely the same as they were during the weeks and months of preparation in the practice room. For this reason, there comes a point in the preparation when the emphasis switches from small and focused details to big picture concepts. Also, as the piece becomes more polished, problem spots are more subtle and progress is made in much smaller increments. As a result, practice habits are adjusted to accommodate the goals of performance. Nine of the thirty-six percussionists interviewed described how they change their practice room focus as they approach their performance.

Preparing a piece for performance usually takes a great deal of time. Eventually the piece becomes more polished and there are fewer errors to correct. When this happens,

¹⁸ Gary Cook, personal interview, 2 Nov. 2012.

¹⁹ Noa Kageyama, “How to Care More Without Putting Too Much Pressure On Yourself,” 16 Sept. 2012, *The Bullet Proof Musician*, 26 May 2013.

progress slows down and further gains are less evident, which can be frustrating. Omar Carmenates put it in perspective, saying, “as you get closer, you have to relish in the fact that you are getting better at less.” Problem spots that need to be fixed at this point have been problem spots for a long time, usually for a good reason, and are naturally much more difficult to fix. “Three weeks before you perform you may be working out one two-beat lick . . . but two months prior I was learning two pages a day,” explained Carmenates. This is part of the process when reaching “optimum performance.” As the performance draws nearer, “the scope is going to get smaller and smaller, and you have to relish in those really small victories,”²⁰ said Carmenates. Brian Nozny uses a similar approach, moving from “very, very big picture to very, very small picture”²¹ as the performance approaches.

Although narrowing the focus is necessary for most to elevate a piece to performance quality, as Mark Ford gets closer to a performance, he abandons the focus on fixing the small problem spots and instead focuses on “expressive content . . . I try to think more about the expressive elements towards the end of the preparation because if the audience is only getting technical things out of my playing, then they're really missing the boat.”²² Expressive elements include things like phrasing, pacing, and dynamics, as well as, in Brian Zator’s words, “performance presence.” As Zator gets closer to a performance he changes his practice focus from notes, rhythms, and even aspects of musicality to the visual elements of performance. “What do I look like before I step up to the marimba . . . what are my hands doing and feet doing, in a phrase, in a transition, before I start the

²⁰ Omar Carmenates, personal interview, 12 Nov. 2011.

²¹ Brian Nozny, personal interview, 30 May 2012.

²² Mark Ford, personal interview, 12 Nov. 2010.

piece, and after I end the piece?” Zator believes that this is an important final step to ensure that the audience gets to “see the whole package.” This idea of presenting the whole package to the audience affects Zator’s practice methods in other ways as well. As he gets closer to the performance he goes “back to the macro ideas so I can get the bigger picture of things . . . All of the little bitty things that I was doing before, I’m putting together to make the whole complete performance.”²³

Joshua Smith follows a similar approach, and describes his focus as “an hourglass.” If Smith has eight weeks to learn and prepare a piece:

*The first week I’m doing big runs of stuff, getting an overview. By the fourth week, I’m hitting trouble spots. By the fifth week, I’m starting to expand it. By the seventh week, I’m doing more full runs and listening to recordings again. And then by the performance, I’m doing full runs.”*²⁴

The routine of doing more full run-throughs as the performance draws closer was shared by ten of the thirty-six percussionists interviewed. At a certain point in the process, it becomes apparent that the piece is no longer significantly improving so practice time is better spent playing the piece from beginning to end. A week before the performance, for instance, James Campbell focuses his practice time on “just doing run-throughs.” At this point, he’s “not really practicing it,” instead he’s trying to get repetitions “performing it.”²⁵

²³ Brian Zator, personal interview, 2 Nov. 2012.

²⁴ Joshua Smith, personal interview, 11 Nov. 2011.

²⁵ James Campbell, personal interview, 25 Mar. 2013.

Run-throughs help establish continuity and confidence and help the player prepare for mistakes that they might encounter during the performance. Brian Zator embraces mistakes during run-throughs because it teaches him “how to get out of it.”²³ Eric Willie views mistakes made during run-throughs a little differently. He views them as a sign that he’s not prepared to perform. “Two weeks before, I’m trying to get those three, five, or ten reps in a row without making a mistake. [At this point] you should have the piece nailed, so there’s no excuse. You’re looking for consistency.”²⁶

Doing run-throughs can help with performance preparation in a variety of other ways, including revealing challenges that practicing individual sections may not otherwise uncover. John Lane does more run-throughs at the end to “get the pacing down.”²⁷ Brian Mason does run-throughs to build “endurance mentally and physically.”²⁸ Christopher Deane believes that if you can do fifty solid reps the week of the performance, “you are in good shape.”²⁹ Endurance can be of particular concern when preparing for a solo recital. To best prepare, Joshua Smith tries to “walk through everything,” doing a full run-through of the entire recital, including the movement “from instrument to instrument.”³⁰

Run-throughs are also very helpful to anticipate how one will deal with adversity. For instance, sufficient practice and warm-up time is not always possible before a

²⁶ Eric Willie, personal interview, 11 Nov. 2011.

²⁷ John Lane, personal interview, 12 Nov. 2011.

²⁸ Brian Mason, personal interview, 10 Mar. 2013.

²⁹ Christopher Deane, personal interview, 12 Nov. 2010.

³⁰ Joshua Smith, personal interview, 11 Nov. 2011.

performance, so Michael Burritt practices doing “dry runs of pieces.”³¹ This prepares him for what it might feel like, both mentally and physically, if it happens at the performance.

Four of the thirty-six percussionists interviewed approached run-throughs leading up to the performance in a very distinctive way. Instead of trying to mimic the performance conditions, people like Jason Nicholson, play the piece, “in its entirety, way under tempo.” Gary Cook finds that slowing it down significantly helps “vitalize the programming of the piece,”³² while Brian Mason has found that it allows him to play it as “correct as possible so I understand the material in context and the only variable is tempo.”³³

Surprisingly, three of the thirty-six percussionists interviewed take the complete opposite approach. As they get closer to the performance, instead of doing more run-throughs, they purposely try to do *fewer* run-throughs. Julie Licata explains her thinking:

If I was doing runs everyday before the performance, I would get tired of the piece. I would expend all my emotion before I get to the performance and/or I would make mistakes and then worry that I'm going to make those mistakes again. So I try to avoid that by not running the piece too much.

The fact that Julie Licata doesn't want to “expend” all of her emotion before the performance may be a direct result of her performance philosophy. “[I want] each performance to be very unique, so my phrasing changes from day to day.” She advocates that music is a form of self-expression and since she doesn't “feel the same every day,”

³¹ Michael Burritt, personal interview, 20 Jan. 2013.

³² Jason Nicholson, personal interview, 2 Nov. 2012.

³³ Brian Mason, personal interview, 10 Mar. 2013.

it's not logical to "prescribe for myself exactly how I'm supposed to feel on the day of my performance."³⁴ Steven Schick agrees with Licata's philosophy and strives to do the same.

It's a pretty boring life as a concert musician if the only thing you do on stage is to retrieve, repeat the things that are in the practice room. It is absolutely essential to practice in such a way that you prepare yourself to do a whole bunch of things on stage, not just one thing . . . my practicing is not limiting but offers a range of abilities.

To help accomplish this goal, Schick quits doing run-throughs the week before the performance, turning his focus to something else besides "just getting through the piece from top to bottom."³⁵

~ Simulate Performance ~

Performing for an audience always feels drastically different than doing a run-through in the practice room. This is attributed to the many changes that occur within the physical and mental self of the performer as well as with the environment of the venue. Many people combat the inevitable physical and mental changes of performance by simulating performance conditions in the practice room. That way, "by the time your real performance day comes, you know the routine. You've done it all before - many times,"³⁶ said Jon Gorrie in his book *Performing in the Zone*.

³⁴ Julie Licata, personal interview, 12 Nov. 2011.

³⁵ Steven Schick, personal interview, 31 Oct. 2012.

³⁶ Jon Gorrie, *Performing in the Zone*, (Seattle, WA: CreateSpace/Amazon, 2009), 107.

Six of the thirty-six percussionists interviewed described their efforts to replicate performance scenarios in the practice room. John Tafoya believes that it is important to practice in performance attire and go through the entire routine of entering and existing the stage.

Play a portion of the program, but when you do it, wear the same shoes you are going to wear for the show, maybe even the same clothes. You actually walk up to the instrument and you bow. You do all the things that you would normally do at the recital but your doing it in your late practice sessions.”

Although the mind knows that it’s a drill, Tafoya finds that “there is something about the mechanics of it, physical and emotional, of doing everything that you are going to do at the show that really helps” When it comes time to perform, it will “feel like the twenty-fifth time you’ve done it because you’ve gone through everything all the way to the bow. The sensations are all very similar.”³⁷ Robert Caldwell, author of *The Performer Prepares*, believes that this type of preparation “creates a map of the overall dimensions of your performance . . . like a blueprint, it provides an overview of your entire performance.”³⁸

Eric Willie also tries to simulate the physical aspects of performance in the practice room. Like Tafoya, he practices entering the stage, walking up to the marimba, and bowing, but Willie also expressed the importance of practicing how to start. “How are you going to count yourself off? Are you going to think of the first phrase and then play

³⁷ John Tafoya, personal interview, 13 Nov. 2010.

³⁸ Robert Caldwell, *The Performer Prepares*, (Dallas, TX: Caldwell Pub Co., 1990), 137.

the first note, or are you going to do like one, two, three, breathe?” Willie believes it is important to plan this out and do “the same routine every time.”³⁹

Simulating the characteristics or routine of performance is not always easy to do, especially in the case of an audition. For instance, the order of events may be determined real time by a panel or committee. This type of uncertainty makes it difficult to simulate in the practice room. A good way to prepare for these situations is to create randomness within the practice routine so that unpredictability becomes the actual routine. For example, when Michael Udow prepares for an orchestral audition, he recommends “making flash cards for each piece and then shuffling them so that you are constantly changing the order in which you play your excerpts.”⁴⁰

Incorporating elements of the performance environment into one’s practice routine is extremely powerful and creates a sense of familiarity on stage. Unfortunately, during a performance the physical surroundings are subject to change as well. Everything from the type of instrument to how the hall resonates can deeply impact the comfort of the performer. To help prepare himself for the environmental changes, Payton MacDonald moves his music stand from its usual location “in front of the marimba [to] another part of the room” so that he can get use to the “openness and more direct conduit with the audience.”⁴¹ Joshua Smith uses a similar technique, but instead of the music stand, he likes to “re-orient the keyboard to a different wall in the room . . . that will throw me off

³⁹ Eric Willie, personal interview, 11 Nov. 2011.

⁴⁰ Michael Udow, phone interview, 16 Nov. 2012.

⁴¹ Payton MacDonald, personal interview, 3 Nov. 2012.

enough to give me those performance jitters. This is new and fresh, how's my body going to handle it?"⁴²

Like Smith, James Campbell tries to create practice situations outside of his "comfort zone" to test how he will respond in a performance. Rather than moving his instrument, Campbell tries playing on "another instrument in a different room . . . try to play it on another keyboard or with different kinds of mallets to make sure that I don't just sound good in my basement but that I can do it outside of my practice world."⁴³

When possible, an even better alternative is to practice in the hall where the performance is scheduled to occur. Joshua Smith said, "I like to get into the hall and run through stuff just to hear things. I try to do that at least a couple of days before the performance. Not the day of, but leading up to the performance."⁴⁴

Play for People

Simulating the routine and playing environment is a great way to become familiar with the logistical issues of performance, but that does not address the physical affects of anxiety. The physiological and psychological changes caused by anxiety and adrenaline when performing are conditions that are harder to simulate, especially in the comfort of a practice room. While many performers try to suppress the effects of anxiety, three of the

⁴² Joshua Smith, personal interview, 11 Nov. 2011.

⁴³ James Campbell, personal interview, 25 Mar. 2013.

⁴⁴ Joshua Smith, personal interview, 11 Nov. 2011.

percussionists interviewed instead try to purposely re-create the physical symptoms of anxiety so that they can practice dealing with it.

Jason Baker is one who prefers to “practice the anxiety” rather than try to “alleviate anxiety.” He does this by simulating the physical characteristics experienced during a performance, such as increased heart rate and heavy breathing. “I’ll do jumping jacks, I’ll do pushups, I’ll do anything to get my brain out of order and get my body out of order. Then get up and suddenly do [a run-through].” In doing this, Baker is preparing himself for the physical symptoms he may encounter on stage.

I’m trying to alleviate any unknown that I’m not experiencing in the practice room that I’m going to have to experience on stage . . . You practice the physical and psychological stuff as much, if not more, than you practice the music stuff. That, as we all know, is the real crux. It’s not the piece that’s hard, it’s the circumstances that are different on stage. I guess a lot of people try to do the opposite. They’ll work on breathing or meditation, and that’s cool, that may work best for them. But for me, I’ve always felt that if I can just get comfortable with the anxiety part of it, I’ll be most successful.⁴⁵

Omar Carmenates shares a similar philosophy and does “a lap around the building” to get his “heart rate up”⁴⁶ before doing a practice run-through. Joshua Smith also subscribes to this method and finds that doing run-throughs with “an accelerated heart rate”⁴⁷ exposes his performance tendencies. In Don Greene’s book, *Performance Success*, he advises the reader to do the same thing, however, “after you have your heart rate up, pause outside

⁴⁵ Jason Baker, personal interview, 11 Nov. 2011.

⁴⁶ Omar Carmenates, personal interview, 12 Nov. 2011.

⁴⁷ Joshua Smith, personal interview, 11 Nov. 2011.

the room and quickly center down.”⁴⁸ This extra step is much more accurate of what the player would do before an actual performance if their heart rate was accelerated.

Simulating the physical characteristics of performance is a great way to prepare for anxiety, but six of the thirty-six percussionists interviewed found that these physical characteristics were even more accurately replicated when playing for somebody. Performing is always a totally different mental and physical experience than practicing, so it is important to practice performing in addition to doing run-throughs.

One of the biggest differences between being alone in the practice room and being on stage performing is the number of mental distractions. When performing, there are countless things that can grab the performer’s attention. Blocking them out takes mental practice. Michael Burritt practices run-throughs for people for this very reason.

When you have someone else listening, or you’re feeling pressured or slightly nervous . . . It’s another thing in the room vying for my concentration . . . Someone is sitting there and I’m thinking about that now. I’ve got to think about what I’m doing. I’ve got to stay calm and I’ve got to play . . . I have to work on strengthening or remembering how that feels.

Playing for one person is obviously different than giving a concert, but “it’s a good position to put myself in, in terms of just getting myself ready for how its going to feel when I play in front of forty or fifty or a hundred people,”⁴⁹ said Burritt. William

⁴⁸ Don Greene, *Performance Success: Performing Your Best Under Pressure*, (New York, NY: Broude, 1978), 97.

⁴⁹ Michael Burritt, personal interview, 20 Jan. 2013.

Moersch agrees with Burritt and believes “once you’ve learned the material, then you actually have to practice giving the performance, which is a completely separate issue.”⁵⁰

Matthew Duvall notices that “many students in academia prepare a recital, do it once, and move on the next thing.” While many view this as the end of the process, Duvall thinks it’s just the beginning. “That is just your etude, that’s just your dress rehearsal.” He believes that it’s not until after “three performances, [that] you start to better understand what you need to work on.”⁵¹ Similarly, Kevin Bobo uses practice performances to help diagnose his problem spots. “I do run-throughs in front of somebody and then I take notes after every piece. That determines what I practice the next day before the second run through.”⁵²

If during a practice performance “[you can] learn or discover only one thing about yourself, improve only one aspect of your performance, or make even a slight improvement in the appropriateness of your performance arousal level, you have gone in the right direction towards optimal performance,”⁵³ says Jon Gorrie in his book, *Playing in the Zone*.

With each repetition, new problem spots are exposed, and fixed. As a result, Duvall finds that it’s not until after “ten performances, [that] you start to feel like you know it.”⁵¹

Playing for other people, especially when it’s not required, takes self-discipline, because

⁵⁰ William Moersch, personal interview, 12 Nov. 2010.

⁵¹ Matthew Duvall, personal interview, 1 Mar. 2013.

⁵² Kevin Bobo, personal interview, 13 Nov. 2010.

⁵³ Jon Gorrie, *Performing in the Zone*, (Seattle, WA: CreateSpace/Amazon, 2009), 24.

most people would rather not put themselves in an uncomfortable situation. These practice performances are most effective when they evoke the same anxiety of a performance. For this reason, it is important to choose audience members that stir up these same physical and emotional reactions for the performer. Michael Burritt likes to do practice run-throughs for his students because they make him nervous. “I’ll ask students to come in and listen to me play. Students make me nervous because they expect me to play well.”⁵⁴

After performing for a number of years as a free-lance musician, William Moersch found that playing for only one or two people no longer triggered anxiety equal to that of a performance, so he resorted to scheduling “mock recitals . . . [I’ve] invited a dozen people over, set up a row of chairs. – this is when I had a loft in New York - and came out and actually played the whole recital as if were the real deal.”

Moersch is a strong believer in mock recitals and tries to replicate as many much of the performance scenario as possible.

I’m going to eat my usual meal before a concert, I’m going to get into my concert dress, I’m going to walk to my instrument, and I’m going to play the concert. I’m really trying to recreate, as much as possible, all the psychological elements.

After continuously doing mock recitals, Moersch “discovered that being on stage had become just another room in my house where I was living.”⁵⁵ Moersch’s routine of doing mock recitals is heavily influenced by the ideas of Michael Colgrass. In Colgrass’ book,

⁵⁴ Michael Burritt, personal interview, 20 Jan. 2013.

⁵⁵ William Moersch, personal interview, 12 Nov. 2010.

My Lessons with Kumi, he describes how one of the characters, Matt Bernstein, was “more nervous for the performances in his living room than he was in Carnegie Hall . . . because he believed it and acted out the living room performances as if it were the real time.”⁵⁶

Self-Recordings

Not everyone has audience members and small performance spaces at their disposal, making it difficult to host mock recitals. Even when friends or family are willing to listen, their support can tire quickly or be unavailable when needed most. In those cases, audio or video recordings can be used to help simulate performance anxiety.

Payton MacDonald finds that recording himself “is like playing in front of people.” It makes him “uncomfortable” and puts “pressure” on him.⁵⁷ Michael Burritt also experiences these same feeling when recording himself. “I put the recording on and it makes me feel nervous. I like that because it makes me deal with the nerves and forces me to step up my concentration.”⁵⁸ In *Performance Success*, Don Greene agrees that “the live recording process . . . simulate(s) the conditions of moderate performance pressure.”⁵⁹

⁵⁶ Michael Colgrass, *My Lessons with Kumi: How I Learned to Perform with Confidence in Life and Work*, (Moab, UT: Real People Press, 1998), 174.

⁵⁷ Payton MacDonald, personal interview, 3 Nov. 2012.

⁵⁸ Michael Burritt, personal interview, 20 Jan. 2013.

⁵⁹ Don Greene, *Performance Success: Performing Your Best Under Pressure*, (New York, NY: Broude, 1978), 13.

Self-recordings are a very effective practice room tool and can be used in many. John Tafoya actually records himself for the opposite reason, to *reduce* anxiety. When he listens to a recording of himself, and it sounds good, it reduces his anxiety for the performance. “I think a lot of times when we perform we get worked up because we are not sure what it sounds like on the other side. If [you] flat out know what it sounds like, that is a big confidence boost.”⁶⁰ With today’s smart phones, free computer programs, and affordable hand held digital recorders, self-recording is very easy, even for the most technically challenged. While higher quality devices and programs provide more detailed feedback, lower level devices are still extremely useful and can help in a variety of ways.

Matthew Duvall said he does not record himself very often, but when he does, it teaches him more about his playing than “months of work in the practice room.” His infrequent recording is not a reflection of its value, but rather “a discipline issue.” When on a tight schedule and desperate for practice time, he finds it extremely hard to stop what he is doing to record himself, even though he knows it’s “extraordinarily productive.”⁶¹

John Tafoya, on the other hand, makes self-recording a top priority. When he was preparing for orchestral auditions early in his career, Tafoya recorded all of his practice sessions. “If I was practicing for four hours that meant I went home and listened for another four hours. Then I would make notes about what was going on in terms of either balance or tempos, where it was rushing or where it was dragging.”⁶² While Tafoya’s self-recording habits are inspiring, they were atypical among the percussionists

⁶⁰ John Tafoya, personal interview, 13 Nov. 2010.

⁶¹ Matthew Duvall, personal interview, 1 Mar. 2013.

⁶² John Tafoya, personal interview, 13 Nov. 2010.

interviewed. Although many do use self-recording as part of their regular routine, its frequency of use varies widely. For example, John Lane records himself at the end of each practice session, recording a run-through of “whatever [he] was working on.”⁶³ Brian Zator records himself “once every other practice session”⁶⁴ while I-Jen Fang records herself much less frequently. She only records sections that are at a level that she “will appreciate.”⁶⁵ Similarly, Eric Willie only records himself two weeks before the performance to “listen for inconsistencies.”⁶⁶

Questions that might reasonably be asked of musicians who self-record are, ‘Why do you need to record yourself to hear your inconsistencies? Can’t you hear them as you play?’ As stated previously in Chapter 6, Blake Tyson argues that the player’s perception is not always accurate.

*Our brain fills in a lot of holes. Your brain wants it to sound a certain way and it sort of lies to you . . . It is like hearing your own voice. Your voice sounds different when you hear it. You’re saying that’s not me . . . I found by recording myself a lot, my voice now sounds to me exactly like it sounds in the recording.*⁶⁷

The human brain compensates by adding in ‘needed’ sensory information. Sometimes this is the addition of an entirely missing element while other times it’s an inaccurate representation of a subtle nuance. For this reason, Julie Licata uses recordings to hear “whether things are musically coming out.”⁶⁸ William Moersch believes that the player

⁶³ John Lane, personal interview, 12 Nov. 2011.

⁶⁴ Brian Zator, personal interview, 2 Nov. 2012.

⁶⁵ I-Jen Fang, personal interview, 11 Nov. 2011.

⁶⁶ Eric Willie, personal interview, 11 Nov. 2011.

⁶⁷ Blake Tyson, personal interview, 3 Nov. 2012.

⁶⁸ Julie Licata, personal interview, 12 Nov. 2011.

must remove himself or herself from the situation to determine if “those little nuances that I think I’m doing [are] really registering.”⁶⁹ Barry Green, in his book *The Inner Game of Music*, agrees and advises that musicians should practice with a “tape recorder to help you analyze your playing and control inaccuracies.”⁷⁰

Similar to how Kevin Bobo uses practice run-throughs to determine problem spots, Eric Willie uses recordings of his percussion ensemble to find rehearsal spots. “I record every percussion ensemble [rehearsal] and then I make a to-do list for the next rehearsal. I post it in Dropbox so the kids have it and know what to work on for next rehearsal. That’s helped a lot.”⁷¹

Self-recordings are constructive because they allow the player to listen to him or herself from a third person perspective. Ideally, objective listening would occur in real time while playing, but this is a hard skill to develop. Regardless of the difficulty, John Lane believes that “we should strive to listen to ourselves as we play, as if we were listening to a recording.” Lane believes that listening to numerous practice session recordings can develop this. Eventually the player will learn to hear the discrepancies between their aural memory and what was actually played. “When I was much younger I would play it back and say, ‘Oh man!’ [But now] I will play it back and say, ‘Yep, that is what is sounds

⁶⁹ William Moersch, personal interview, 12 Nov. 2010.

⁷⁰ Barry Green, and W. Timothy Gallwey, *The Inner Game of Music*, (Garden City, NY: Anchor Press/Doubleday, 1986), 187.

⁷¹ Eric Willie, personal interview, 11 Nov. 2011.

like.’” Learning to listen accurately while playing is not easy. This skill “grows over time . . . [and] takes a long time to develop,”⁷² explained Lane.

Developing this ability is especially important for professional musicians because it enables them to make adjustments during the performance. The acoustics of performance halls are unpredictable and greatly impact elements such as articulation, dynamics, and tempos. Blake Tyson believes that developing the ability to listen from a third person perspective gives the performer “feedback instantly” so that they are able to make “those adjustments”⁷³ during the performance. What does this feel like when done correctly? Michael Udow shared his experiences with this concept.

I’m always listening to the music that I’m making but it is almost as if it is an out of body type of perspective . . . I know what the desired outcome is, and so my hands and my feet are working to produce that but I’m listening to the sound that I just produced and am constantly getting feedback so that my brain can evaluate the outcome.

This skill is not easy to develop and Michael Udow suggests that this is because hearing is a “very passive” sense. “We can choose to close our eyes and not see, but we don’t have ear lids so we are constantly being bombarded by sound.”⁷⁴ As a result, it is much more natural for us to ignore the sounds we hear if we are not intently focused on listening.

As John Lane stated previously, this skill takes time to develop and is best learned by comparing recordings to the aural memory of the performer. Brian Zator agrees, but

⁷² John Lane, personal interview, 12 Nov. 2011.

⁷³ Blake Tyson, personal interview, 3 Nov. 2012.

⁷⁴ Michael Udow, phone interview, 16 Nov. 2012.

believes that when listening to the recording, it is important to follow along in the score. Otherwise, since the listener is naturally biased, it may be easy to dismiss small mistakes and “start modifying it to fit your interpretation . . . Am I doing the things that are said or that the composer is requesting or have I just gone so right field that it’s nowhere near what they were looking for?”⁷⁵

While listening to recorded practice sessions is certainly beneficial for self-critiquing, watching video recordings is often even more revealing. As Michael Udow explains, video recordings make it much easier to “understand the out-of-body experience.” Not only are mistakes noticeable aurally, but the problem can usually be seen as well. With audio recordings, if the quality isn’t great, many of the more subtle issues of tone quality will be missed. With videos, even if the audio quality is poor, the ability to “watch your strokes in real time”⁷⁶ can often lead to an accurate diagnosis. In addition, there are times when mistakes don’t occur but should have occurred and will probably occur in a future performance. Sometimes problem spots go well during a run-through even if they are not solid on a regular basis. In these cases, the audio recording has no way of indicating those spots. Gary Cook has found that when watching a video, “you can see a player going in and out of levels of absorption.” Body language is a huge indicator of comfort level, and these problem spots or areas of lesser familiarity, are very obvious visually. “Video is very strong that way [and] very powerful.”⁷⁷

⁷⁵ Brian Zator, personal interview, 2 Nov. 2012.

⁷⁶ Michael Udow, phone interview, 16 Nov. 2012.

⁷⁷ Gary Cook, personal interview, 2 Nov. 2012.

Mistakes and problem spots can also occur because of unnatural or unnecessary physical movements, which can't be detected from audio recordings. Brett Dietz has learned that by watching videos of himself, he can quickly diagnose these spots. "[Sometimes I] look at my playing and go wow, I didn't know I was doing that there or realize I have this weird habit."⁷⁸ Weird habits may not always cause problems musically, but as previously discussed, percussion is a very visual instrument and the physical movements have a large impact on the audience's perception. For this reason, Blake Tyson finds videos to be a great way to "see what you look like when you play so you can make sure you aren't doing something stupid that distracts from the music."⁷⁹ Looking stupid on stage is something no performer wants to do, and videos are often the best representation of an overall performance. Websites like YouTube and Facebook have made posting performances incredibly easy. Unfortunately, this also means looking stupid has become incredibly easy as well. Brett Dietz uses this as motivation. "I do a lot of YouTube recordings and it forces me to learn to play a piece as well as I can."⁸⁰ Jason Baker also uses social media as a form of motivation. "I'll use that sometimes as a goal. 'OK, this week I want to come up with something that I can put on Facebook.' It's not so much for comments, although it's nice if someone gives me a suggestion and it's constructive, but it's more of creating some of that pressure."⁸¹

Self-critiquing is always more difficult than critiquing the work of others. Listening to recordings and watching videos of one's self exposes and helps solve issues that may

⁷⁸ Brett Dietz, personal interview, 1 Nov. 2012.

⁷⁹ Blake Tyson, personal interview, 3 Nov. 2012.

⁸⁰ Brett Dietz, personal interview, 1 Nov. 2012.

⁸¹ Jason Baker, personal interview, 11 Nov. 2011.

otherwise go undetected. Self-awareness is a key trait among successful musicians and Michael Udow believes that listening to recordings and watching videos are the “way I can be my own best teacher.”⁸²

Although the benefits of listening to and watching recordings were widely acknowledged, four of the thirty-six percussionists interviewed, purposely don’t record themselves in the practice room. Each partially attributed this to their ability to hear themselves from a third person perspective, but there were also other reasons for not recording themselves. Steven Schick never records himself because he believes that “feel” is the best gauge of how well he is playing a piece. “I know when I’m in the right spot with a new piece by how it feels to me. If it feels right, if you resonate with it, it’s probably going to feel right to the people.”⁸³

Anders Holdar is another who puts a lot of emphasis on feel and believes it is extremely important to “rely on yourself.” He finds that when he stops relying on himself and starts relying on recordings for feedback, he gets “stressed.” When a musician is at a “certain [ability] level, you need to hear everything,” explained Holdar, but once the player reaches a higher level of musical maturity, hearing all the little mistakes can do more harm than good. “If the feeling is good for me, I like to stay that way. If I start to listen, maybe it won’t be.”⁸⁴

⁸² Michael Udow, phone interview, 16 Nov. 2012.

⁸³ Steven Schick, personal interview, 31 Oct. 2012.

⁸⁴ Anders Holdar, personal interview, 28 Oct. 2011.

Steven Schick finds that people who record themselves all the time, become fixated on “listening for accuracy” and “adherence to the score.” While there is definitely a time and a place for this type of focus, other aspects of performance must not be neglected. If not careful, it’s easy to “find yourself just concentrating on [one] aspect of performing.”⁸⁵

Frederic Macarez stressed the importance of being able to “listen and control what you do, when you play.” He acknowledged that “as a younger performer you don’t have the experience to do that,” but as a more advanced player, “you should always listen and you should always have an idea of what you’ve done.” He believes that getting used to listening and critiquing after the fact hinders one’s ability to do it in the moment. “If you listen right now, when you are playing, you can correct the changes. I think that is the best.”⁸⁶ Robert Schietroma agrees with Macarez and feels that “if you don’t hear it [while playing], you’re [never] going to be able to.”⁸⁷

~ Performance Day Rituals (Physical/Psychological) ~

*I use to wear the same shirt until I had a bad recital and then that shirt would be forbidden.*⁸⁸ - Kevin Bobo

Like Kevin Bobo, many musicians have unusual rituals or routines they adhere to on the day of a performance. Some people’s rituals focus on ensuring that their body is feeling and operating most effectively, while others focus more of their attention on their psychological preparation. Many of the methods shared by the percussionists interviewed

⁸⁵ Steven Schick, personal interview, 31 Oct. 2012.

⁸⁶ Frederic Macarez, personal interview, 27 Oct. 2012.

⁸⁷ Robert Schietroma, personal interview, 3 Nov. 2012.

⁸⁸ Kevin Bobo, personal interview, 13 Nov. 2010.

were very logical and understandable, while others were more intriguing and superstitious. Regardless of which category they fell into, it's clear that rituals and routines play a large part of many players' performance preparation.

~ Physical Rituals ~

Performance day rituals can essentially be divided into two categories, physical and psychological. While many of the percussionists interviewed do a combination of the two, nineteen of the thirty-six have rituals that focus on physical preparation. Most of the physical rituals or routines of the percussionists interviewed included, exercise, or diet. As Gary Cook explained, "[you must] rest, eat well, and have the energy to get through it. It's a stamina issue and mental fatigue is the biggest concern."⁸⁹ Steven Schick agrees, saying, "my ability to focus is tied to how well I treat myself - eating, sleeping, and exercising." He believes that these habits should be part of a daily routine, not just on the day of a performance.

*It's important to be a complete human being when you walk on stage, not just a guy who knows how to play that piece. I think its also relaxing to me to realize, 'oh yes, there are other things involved in the world than just this fourteen minute long piece that I'm all worried about.' So if I exercise, and especially if I eat and sleep well, I think that makes it a lot easier.*⁹⁰

⁸⁹ Gary Cook, personal interview, 2 Nov. 2012.

⁹⁰ Steven Schick, personal interview, 31 Oct. 2012.

Sleep and Rest

Nine of the percussionists interviewed expressed the importance of being well rested. This comes as no surprise and is certainly not unique to music. In almost all human endeavors, a good night sleep promotes favorable outcomes, both physically and mentally, and should be a top priority leading up to a performance. Don Greene suggests in his book, *Performance Success*, that the amount of sleep the player gets two nights before the performance has “more of an impact on your performance than the sleep you get [the night before].”⁹¹

Three of the percussionists interviewed, Brian Nozny, Thomas Burritt, and Michael Burritt, all prefer to take naps prior to performances. “I take a fifteen to twenty minute power nap,” said Thomas Burritt. His nap is not normally intended to make-up for a bad night’s sleep, but rather to promote focus and “calm down”⁹² the brain.

Payton MacDonald prefers to sit and rest before performing. “I just go backstage and rest. I will try to rest for forty minutes or so before I go in.”⁹³ Brian Nozny also likes to sit and relax before playing, however, he prefers to “find a practice room and read a book.”⁹⁴

⁹¹ Don Greene, *Performance Success: Performing Your Best Under Pressure*, (New York, NY: Broude, 1978), 115.

⁹² Thomas Burritt, personal interview, 3 Nov. 2012.

⁹³ Payton MacDonald, personal interview, 3 Nov. 2012.

⁹⁴ Brian Nozny, personal interview, 30 May 2012.

Exercise

Exercising on the day of a performance is also a fairly common routine among musicians. In addition to the obvious physical affects, “it has been well documented that exercise can have strong benefits for the mind,” stated Jon Gorrie, author of *Performing in the Zone*.

*When we exercises, engage in deep breathing, meditation, or laugh, our bodies produce chemicals called endorphins, as well as a recently discovered chemical called phenylethylamine. These chemicals appear to produce noticeable benefits on the mind, including reduction in stress, reduction in a anxiety, reduced depression, improved capacity for cognition, improved mood, and relaxation.*⁹⁵

Seven of the thirty-six percussionists interviewed have an exercise ritual the day of a performance, but as expected, the type of exercise and thinking behind it varies greatly among them. For instance, Anders Holdar takes a walk “to relax.” This helps guide his “concentration and focus on the concert.”⁹⁶ John Lane also uses exercise to help him focus on the performance. He does Tai Chi before going on stage and finds that it helps clear his mind.

In contrast, Michael Burritt uses exercise as “a stress relief . . . [Running] takes out some of my extra energy and helps me feel good inside . . . it’s my own little special drug.”⁹⁷ Thomas Burritt practices a less strenuous form of exercise, “full body stretching.”⁹⁸ This prepares his body for the physical aspects of performing, and was adopted from his Tai

⁹⁵ Jon Gorrie, *Performing in the Zone*, (Seattle, WA: CreateSpace/Amazon, 2009), 182.

⁹⁶ Anders Holdar, personal interview, 28 Oct. 2011.

⁹⁷ Michael Burritt, personal interview, 20 Jan. 2013.

⁹⁸ Thomas Burritt, personal interview, 3 Nov. 2012.

Kwon Do training. Brian Mason also exercises right before going on stage, doing “quick physical things like push-ups or physically jogging in place.” Most performers try to lessen their physical symptoms of anxiety, but Mason does the opposite. He gets his heart rate up to increase blood flow. He believes that the “adrenaline rush when you start performing sends chemicals out and your fine motor skills essentially go away.” If he can get his blood pumping before the adrenaline rush occurs, he feels that his body “adjust(s) more quickly” to the loss of his fine motor skills, rather than “being debilitated.”⁹⁹

Mason’s method aligns with the theories of Walter Bradford Cannon. Cannon was an American physiologist and professor at Harvard University who did significant research on adrenaline. In his book, *The Wisdom of the Body*, Cannon states, “even in slight muscular movements the sympathico-adrenal system is brought into action.”¹⁰⁰ Mason’s pre-performance exercises work because his increased muscle movements cause adrenaline to be released earlier. This gives his fine motor skills more time to adjust to the increased adrenaline prior to going on stage.

Brett Dietz also does pre-performance exercises to raise his heart rate, but for different reasons. Dietz is a believer in the fight-or-flight response, which coincidentally, was a theory also developed by Walter Bradford Cannon in his book *Bodily Changes in Pain, Hunger, Fear and Rage*. Cannon’s theory suggests that when humans, or any other animal are put in a fearful situation, their natural reaction is to either fight or flight, depending on the circumstances. The distinction between fight and flight is well

⁹⁹ Brian Mason, personal interview, 10 Mar. 2013.

¹⁰⁰ Walter B. Cannon, *Wisdom of the Body*, (Norton, MA: W.W. Norton and Company, Inc., 1963), 151.

summarized in MIT's *Foundations in Social Neuroscience* textbook. "If the organism sizes up a threat or predator and determines that it has a realistic chance of overcoming it, then attack is likely. In circumstances in which the threat is perceived to be more formidable, flight is more probable."¹⁰¹

When Brett Dietz experiences performance anxiety, his natural reaction is 'flight.' He has discovered though, that if he gets his heart rate up by doing "push-ups, sit-ups, and jumping jacks" before going on stage, he can trigger his 'fight' response. "If I get my heart rate up I don't feel it. I don't feel nervous as much,"¹⁰² explained Dietz.

"The cornering of an animal when in the headlong flight of fear may suddenly turn the fear to fury and the flight to a fighting in which all the strength of desperation is displayed," explained Cannon. In Dietz's case, this same change is triggered by the physical exertion of push-ups, sit-ups, and jumping jacks, which according to Cannon, makes biological sense. The sudden feeling of fight or flight is caused when oxygen is released into the blood to "oxidize the metabolites of muscular contraction." This is followed by a reaction in which carbon dioxide is quickly released from the blood stream, causing increased respiratory contractions. These forced respirations helps eliminate the carbon dioxide from the blood more quickly, in an attempt to return the body to normal.¹⁰³

¹⁰¹ John T. Cacioppo, et al., *Foundations in Social Neuroscience*, (Cambridge, MA: Massachusetts Institute of Technology, 2002), 661.

¹⁰² Brett Dietz, personal interview, 1 Nov. 2012.

¹⁰³ Walter B. Cannon, *Bodily Changes in Pain, Hunger, Fear and Rage: An account of recent searches into the function of emotional excitement*, (New York, NY: D. Appleton and Company, 1922), 275.

According to Douglas and Haldane in their article *The Capacity of the Air Passages and the Percentage of Carbon Dioxide in the Alveolar Air During Rest*, moderately forced breathing for three minutes prior to the initial release of oxygen, greatly diminishes the subsequent respiratory distress, helping to restore the normal conditions quicker.¹⁰⁴ Cannon has also found that after the reaction has subsided, the “heart beats less rapidly” and “returns more quickly from its increased rate to normal.”¹⁰³ This explains why Dietz’s physical exercise help decrease his flight urge. The increased breathing caused by his exercises helps the carbon-dioxide exit his blood stream faster, which helps his body return to a normal state quicker, marked by slower heart rate and breathing.

John Lane and Joshua Smith also feel the need to have their bodies warmed up before going on stage, but go about it in a completely different way. Smith likes to warm up his hands by running “them under hot water.”¹⁰⁵ Lane, on the other hand, just needs to make sure that his body is “physically warm,”¹⁰⁶ which he can accomplish with the appropriate clothing. Gary Gook mentioned an even more unusual way of preparing his body for performance:

*[I do] certain exercises and things before playing, to stimulate my vestibular, which is the inner part of the ear. The vestibular has a lot to do with being balanced and affects both your physical and mental states when you’re playing.*¹⁰⁷

¹⁰⁴ C.G Douglas, and J.S. Haldane, “The Capacity of the Air Passages and the Percentage of Carbon Dioxide in the Alveolar Air During Rest and Exercise,” *The American Journal of Physiology* XLIII (1917): 73-86.

¹⁰⁵ Joshua Smith, personal interview, 11 Nov. 2011.

¹⁰⁶ John Lane, personal interview, 12 Nov. 2011.

¹⁰⁷ Gary Cook, personal interview, 2 Nov. 2012.

Cook does these exercises backstage prior to performance and was introduced to them by Michael Colgrass. In *My Lessons with Kumi*, by Michael Colgrass, he defines “the vestibular organ is an apparatus in your inner ear that accounts for your sense of balance, space, and distance. All your senses focus through it.” When it is functioning properly, the human senses operate at capacity. However, when the liquid in the inner ear is disturbed by either alcohol, or spinning around, even walking can be difficult. Since music is based on “balancing sound, hearing the relationship between pitches, [and] the degree of space between them,”¹⁰⁸ the vestibular organ is considered essential to performance. In Colgrass’ article, “*Taming the Demons of Creativity*,” he further explains Gary Cook’s exercises. When preparing for a performance, exercises that incorporate balance are ideal because they “fine tune the vestibular system.” When the vestibular is tuned correctly, the five senses function at optimal levels, giving “greater access to all the capabilities the senses can contribute to the creative process.”¹⁰⁹

Diet

Diet is the third category of physical rituals or routines commonly mentioned by the percussionists interviewed. Fourteen of the thirty-six percussionists described specific dietary habits the day of the performance, and while most revolved around a healthy diet and controlled portions, a few had more intriguing rituals. Simply eating ‘healthy’ was the most common dietary ritual among the percussionists interviewed.

¹⁰⁸ Michael Colgrass, *My Lessons with Kumi: How I learned to Perform with Confidence in Life and Work*, (Moab, UT: Real People Press, 1998), 204.

¹⁰⁹ Michael Colgrass, “*Taming the Demons of Creativity*,” Oct. 2004, American Music Center: New Music Box, 12 Mar. 2013, <<http://www.newmusicbox.org/articles/Taming-the-Demons-of-Creativity/>>.

In Jon Gorrie's book, *Performing in the Zone*, he emphasizes the importance of eating healthy on the day of a performance. "Certain substances directly affect the chemicals in your body and your brain, and can in turn affect your mood, as well as the way you think, feel, perceive, experience, and react in performing." He specifically acknowledges "consuming an excess of alcohol, refined sugar, and caffeine can cause an artificial activation of your Sympathetic Nervous System. This can quite simply lead to increased levels of both chronic and acute anxiety, nervousness, and over-excitement."¹¹⁰

Ben Wahlund, always tries to "eat a healthy breakfast,"¹¹¹ regardless of his performance time. He believes a healthy breakfast is key to how the body functions the rest of the day. Steven Schick also eats a healthy breakfast and tries to eat healthy all day long as well. In addition, Schick believes it's important to eat "regularly"¹¹² throughout the day. Gordon Stout's pre-performance meal of choice is sushi. "I love to eat sushi." He prefers sushi because it is "very light" and "good for you . . . It's brain food, right? It puts your body and your brain in a good position."¹¹³ William Moersch has similar tastes, and "there was one period in New York when I always had Sushi for a meal before the concert."¹¹⁴

Michael Burritt and Paul Rennick both named bananas as their pre-performance food of choice, and for good reason. Bananas are known to naturally decrease anxiety and, as many athletes can attest, they help sustain muscle function. Michael Burritt explains, "I

¹¹⁰ Jon Gorrie, *Performing in the Zone*, (Seattle, WA: CreateSpace/Amazon, 2009), 178.

¹¹¹ Ben Wahlund, email interview, 31 Oct. 2012.

¹¹² Steven Schick, personal interview, 31 Oct. 2012.

¹¹³ Gordon Stout, personal interview, 3 Nov. 2012.

¹¹⁴ William Moersch, personal interview, 12 Nov. 2010.

like to eat bananas because they relax me. They have a natural beta-blocker. They're also good for your muscles, containing high amounts of potassium."¹¹⁵ Jon Gorrie recommends eating foods such as sushi and bananas, that are free of preservatives and additives. He warns that artificial chemicals in foods, such as "artificial flavorings, colorings, sweeteners, preservatives, and certain 'E-numbers' . . . can affect our mood."¹¹⁶

Brian Zator and John Lane are both light eaters before a performance because they find they have more energy and focus when they eat lightly before a performance. Christopher Deane is another who has found this to be true. In fact, he spent significant time testing this theory to determine its validity.

Years ago I did a personal study where I had a series of symphony concerts every night for two weeks - give or take one or two on the weekends - on a mountain tour. It was the same show and the same book. I would eat heartily one night and go play, and the next night I would only scavenge a few nuts and berries. I consistently found that I played so much better when I wasn't eating a lot of food. When I was just a little bit hungry, it made me more focused and it made me more desirous. I had more drive.

Although for years, this was Deane's ritual, as he has gotten older this has changed. "Maybe it's biology that has shifted, but I find that I have to eat now. If I don't, I will have a little hypoglycemic sort of thing where I lose focus. So it's changed."¹¹⁷ Thomas Burritt also finds that he can't play hungry. "I hate playing hungry. So I'll have a sensible

¹¹⁵ Michael Burritt, personal interview, 20 Jan. 2013.

¹¹⁶ Jon Gorrie, *Performing in the Zone*, (Seattle, WA: CreateSpace/Amazon, 2009), 179.

¹¹⁷ Christopher Deane, personal interview, 12 Nov. 2010.

meal.”¹¹⁸ In contrast, Robert Schietroma does not eat anything before a performance, and only consumes water. In terms of biology, water is more important than food, and staying hydrated the day of a performance is key for the body to operate at its greatest potential. Michael Burritt drinks a lot of water the day of the performance because it helps bring down his stress levels and helps keep him calm. Andy Harnsberger drinks “a gallon of water every day leading up to the performance.” Staying hydrated “helps your muscle memory and keeps you more alert when you are on stage.”¹¹⁹

Harnsberger also finds that “a fifty mg dose of caffeine” before playing really “helps [him] focus.”¹¹⁹ Too much caffeine can magnify the physical symptoms of anxiety, but Harnsberger finds that a fifty mg dose is the perfect amount to give him an extra level of focus. For some people, dietary rituals have nothing to do with focus, muscle memory, or nutrition. Instead, the ritual itself creates a feeling of comfort and familiarity. One such example of this is Kevin Bobo’s retired ritual of eating a “Philly cheesesteak sandwich from Subway”¹²⁰ before every performance. The sandwich had no other purpose but to create a familiar routine that brought comfort and predictability to his performance preparation.

~ Psychological Rituals ~

Comfort and familiarity are powerful emotions that can have a major impact on the results of a performance. Performing is much more psychological than it is physical and

¹¹⁸ Thomas Burritt, personal interview, 3 Nov. 2012.

¹¹⁹ Andy Harnsberger, personal interview, 2 Nov. 2012.

¹²⁰ Kevin Bobo, personal interview, 13 Nov. 2010.

many percussionists interviewed have rituals intended to establish focus and mental preparation, but in all likelihood are probably effective because of the comfort and control created by the routine.

Performance Day Routines

Ben Wahlund for instance, “sets out performance clothes well beforehand.”¹²¹ This is not for time-management purposes or because his performance apparel requires extra planning. It is simply a habit that creates comfort because he knows his wardrobe is one less thing to think about the morning of his performance. Many of the percussionists interviewed have similar rituals revolving around their performance day schedule. Being able to predict when, where, and how events occur throughout the day can be empowering, as it provides the performer with an added sense of command over the outcome of the events that day.

When John Parks was younger, he would try to clear his schedule the day of a performance. “I’d take the day off . . . sleep in . . . take a long shower, and get cleaned up.”¹²² This enabled Parks to arrive at the performance hall with a clear mind and whenever he desired. Like Parks, Brian Nozny likes to clear his schedule the day of a performance. However, Nozny prefers to spend the day at the venue rather than at home. “I try to be there as early as humanly possible.” He is “most comfortable” when he can arrive six hours before the performance. Ideally, he can move all the equipment and play

¹²¹ Ben Wahlund, email interview, 31 Oct. 2012.

¹²² John Parks, personal interview, 12 Nov. 2011.

through things, and still have “two hours left.”¹²³ William Moersch also likes to have control of his time of arrival at the venue, but on a tighter schedule, preferring to arrive at the hall no “less than an hour before show time.”¹²⁴

In stark contrast, Gordon Stout feels best when he is “totally busy until five minutes before” the performance. That way he can “just walk out and play” without thinking about it too much. His mindset is that, by that point, there is nothing more that can be done to “make it any different.” He doesn’t adhere to any strict routines and believes it’s best not to “make a big deal out of a performance day . . . My ritual is just to have a normal day. Some people can get very neurotic before performances . . . I don’t make a big deal out of it.”¹²⁵ Frederic Macarez takes the same philosophy and believes that “it is not necessary to spend one full day to think about it.” He spends ten to fifteen minutes the morning of the performance thinking about what he has to do, but like Stout, Macarez feels that the work is already done at that point and already “know what will happen.”¹²⁶

While many are exacting about their performance day schedule, a primary focus of others is how much practice time they want the day of a performance. For instance, when Julie Licata has an afternoon or evening performance, she likes to do a run-through early in the day, hit a few technical spots, and then not play “the rest of the day.” Regardless what instrument she is playing, her run-through of the piece is at “half tempo with no dynamics and no feeling . . . I don’t want to freak myself out,” said Licata, and playing at a “very,

¹²³ Brian Nozny, personal interview, 30 May 2012.

¹²⁴ William Moersch, personal interview, 12 Nov. 2010.

¹²⁵ Gordon Stout, personal interview, 3 Nov. 2012.

¹²⁶ Frederic Macarez, personal interview, 27 Oct. 2012.

very, slow tempo” ensures that her best run of the day will be saved for the show.¹²⁷ Paul Rennick finds that his best run of the day is usually his third repetition, so he always does “two reps” before going on stage so that “the third one is the performance.”¹²⁸

Contrastingly, Frederic Macarez believes people who do too many run-throughs before performing, “are just tired [for the performance] because they’ve spent too much energy.” He suggests that the best way to maintain your energy and concentration is to spend time singing through the piece. “I don’t really practice, it is too late,” said Macarez. Instead, he spends time thinking through the piece as if it were a “movie in your head.” He believes that if the music is well prepared, extensive warm-ups or run-throughs are not necessary.¹²⁹ I-Jen Fang also has a ritual of mentally reviewing her piece before performing. “I look at my score, but I’m not really playing it. I just look through it.”¹³⁰ If she hasn’t played all day, then she will do a run-through of the piece at the instrument, but if her hands feel good, she would rather just mentally run-through the piece.

Pre-performance mental routines are not limited to backstage. Mark Ford and Brian Nozny both spend a few seconds, while on stage, looking at the instrument and visualizing the first few bars. “I’ll see the first notes I’m about to hit, I hear them in my head, then I approach the drum, put the hands up, deep breath, hear it again, and then

¹²⁷ Julie Licata, personal interview, 12 Nov. 2011.

¹²⁸ Paul Rennick, personal interview, 12 Nov. 2011.

¹²⁹ Frederic Macarez, personal interview, 27 Oct. 2012.

¹³⁰ I-Jen Fang, personal interview, 11 Nov. 2011.

go,”¹³¹ said Nozny. This helps to mentally prepare for what is about to happen and is also a way to solidify tempos.

This method of visualizing the first few bars before playing is much more beneficial than going through mental reminders says Timothy Gallwey in his book, *The Inner Game of Golf*.

*Telling yourself in words that you want the ball to go into the hole is much less effective than actually picturing the ball doing so . . . offering an image of the results you want is very different from demanding them, and affects the success of the technique as well as your general state.*¹³²

Rituals Prior to Performance

Psychological preparation is very important to ensure a successful performance. Achieving the right mental state makes a tremendous difference and many of the percussionists interviewed have their own pre-performance rituals to ensure they are focused and in the right frame of mind.

A common preference among the percussionists interviewed was the need for some time alone before the performance. William Moersch stated that he wants “absolute private individual time in a quiet place, for at least fifteen or twenty minutes . . . Having that quiet private time to really focus exactly on what it was that I was going to do,” allowed him to “enter the proper mental state”¹³³ before going on stage to perform. Brian Mason

¹³¹ Brian Nozny, personal interview, 30 May 2012.

¹³² Timothy Gallwey, *The Inner Game of Golf*, (New York, NY: Random House, 2009), 152-153.

¹³³ William Moersch, personal interview, 12 Nov. 2010.

has a similar ritual, but wants “at least a good thirty minutes of quiet time.” This happens after he is set up and ready to go for the performance to avoid being “distracted by anything.” During these thirty minutes, Mason focuses on putting the “negative thoughts” to rest and just tries to relax.¹³⁴ Julie Licata wants even more alone time, preferring an hour. “I don’t want to talk to anybody so I’ll just put my headphones on and find my own space.” Listening to music “is really soothing” and she always listens to the same couple of songs. Each songs “means something” to Licata and are carefully chosen.

*There’s a piece of music, a Pat Metheny tune called Travels, that I listened to before my senior recital, at Capitol in 2002, and that was the first performance I ever had that I felt like I had expressed what I wanted to express and I wasn’t angry at myself for missing notes, even though I did. That was a really pivotal moment for me so I always listen to that piece of music right before I play.*¹³⁵

Interestingly, Licata indicated she never listens to percussion music or to the piece she is about to play because she doesn’t want to think about it too much. Michael Burritt takes the same approach and tries not to think about his piece too much. “Right before a performance, I try not to think too much about it because that can kind of psych me out.” He finds that once he starts thinking about the piece, it turns into “a dumb game [of] how does that go? How does this go? . . . I just have to trust myself and trust my instincts. I just have to relax . . . and be peaceful.” Burritt always tries to avoid being “too active or too busy” and finds a quiet place where he can sit and be alone for ten or fifteen minutes. When is he able to do this, his performances are much more successful because he feels “centered.”¹³⁶

¹³⁴ Brian Mason, personal interview, 10 Mar. 2013.

¹³⁵ Julie Licata, personal interview, 12 Nov. 2011.

¹³⁶ Michael Burritt, personal interview, 20 Jan. 2013.

John Gorrie, author of *Performing in the Zone*, believes that the secret to staying relaxed before a performance is “accepting that you do not know what will happen in the future, and completely and utterly letting go of control by accepting this state of not knowing.”¹³⁷

John Lane finds that the best way to center himself before a performance is through meditation. “I found if I just spend ten minutes being still and doing a little meditation before I go on, that helps to calm the nerves and get focused for the performance.”¹³⁸ Two of the percussionists interviewed had a fascinating way of calming their nerves. Omar Carmenates and Julie Licata both use mantras to reduce their performance anxiety. “The repetition of a mantra focuses the mind and has a steadying, peace-giving affect,”¹³⁹ says Barry Green in his book, *The Mastery of Music*. Carmenates uses a method described in Donald Greene’s book, *Performance Success*, called process cueing, which was discussed in Chapter 6. These cues can be used for a multitude of situations and depending on the cue, can be used to calm nerves,¹⁴⁰ switch from left brain to right brain thinking,¹⁴¹ stay focused on the present,¹⁴² generate excitement,¹⁴³ or to get out of an emergency situation.¹⁴⁴ Carmenates uses process cues mostly for calming his nerves.

¹³⁷ Jon Gorrie, *Performing in the Zone*, (Seattle, WA: CreateSpace/Amazon, 2009), 89.

¹³⁸ John Lane, personal interview, 12 Nov. 2011.

¹³⁹ Barry Green, *The Mastery of Music: Ten Pathways to True Artistry*, (New York, NY: Broadway Books, 2003), 239.

¹⁴⁰ Don Greene, *Performance Success: Performing Your Best Under Pressure*, (New York, NY: Broude, 1978), 45.

¹⁴¹ Don Greene, *Performance Success: Performing Your Best Under Pressure*, (New York, NY: Broude, 1978), 57.

¹⁴² Don Greene, *Performance Success: Performing Your Best Under Pressure*, (New York, NY: Broude, 1978), 80.

*You just repeat those words, take deep breaths, and focus on your abdomen. What happens is, all those jitters that you feel, the fire you feel in your arms, and your adrenalin, all goes here (abdomen). It calms everything down. It's basically just channeling your nerves instead of trying to get rid of them.*¹⁴⁵

Julie Licata always uses the single phrase, “I am ready, I do have something to say, and it doesn’t really matter anyway.” Licata calls this her “mantra” and says that repeating this a few times before walking on stage, really helps calm her nerves.¹⁴⁶ Contrastingly, Brian Zator eases his performance anxiety through spiritual means.

*I'm a Christian, and I pray before I play . . . It brings me comfort to know that no matter what happens, it's going to be ok. This is a small part of what I do in the grand scheme of the world, but if I can do just a little bit, I know that God is going to support me and he's going to be there. He gave me this ability to deliver my message and that brings me a lot comfort. I don't get as nervous when I do that because I know that I've done the work and he's going to be there to help me get through it.*¹⁴⁷

Among those interviewed, the most unusual method to help calm pre-performance nerves was probably Gary Cook, who suggested juggling.

*I know a lot of string players that will juggle to deal with their performance anxiety because you can't be thinking about anything else but juggling and paying attention to the balls in the air. There's a physical warm-up there and you can't be thinking about getting nervous or about playing because otherwise, you'll drop the balls.*¹⁴⁸

¹⁴³ Don Greene, *Performance Success: Performing Your Best Under Pressure*, (New York, NY: Broude, 1978), 100.

¹⁴⁴ Don Greene, *Performance Success: Performing Your Best Under Pressure*, (New York, NY: Broude, 1978), 92.

¹⁴⁵ Omar Carmenates, personal interview, 12 Nov. 2011.

¹⁴⁶ Julie Licata, personal interview, 12 Nov. 2011.

¹⁴⁷ Brian Zator, personal interview, 2 Nov. 2012.

¹⁴⁸ Gary Cook, personal interview, 2 Nov. 2012.

Matthew Duvall also takes an unorthodox approach, as he likes to “play video games” before his performances. He appreciates the fact that as “percussionists, our instruments are on stage” because if they were backstage, he may be tempted to play through his material. Instead, he believes “you should save it for the stage.”¹⁴⁹

All of the rituals described above are used to prepare the player either physically or mentally for their performance. Consistently following the same routine helps the body and mind prepare itself for the task ahead and creates a sense of familiarity, comfort, and control.

No Ritual

In contrast, seven of the percussionists interviewed, dislike the idea of a performance day ritual and would rather treat performance days like any other day. Jason Nicholson, for example, does not have a performance day ritual because he feels that it would make him “more nervous . . . I like to stick to the routine and not build it up in my head that there’s a performance, that way I just feel like I’m playing on a different day.” By suddenly doing something different on the day of a performance, Nicholson feels it would accentuate the “pressure of a performance.” In a sense, he also has a performance day routine, but that routine is the same as his daily practice routine. That way, when “you go up there and you play, it’s just like it’s any other performance in a practice room.”¹⁵⁰

¹⁴⁹ Matthew Duvall, personal interview, 1 Mar. 2013.

¹⁵⁰ Jason Nicholson, personal interview, 2 Nov. 2012.

Jason Baker has the same philosophy. “I find that I get more nervous if I have some special thing that I do [on the day of a performance]. I don’t want it to be different. I want when I get up on stage . . . to be as close to what I do every day as possible.” For this reason, as Baker gets closer to a performance, he creates a very specific daily practice routine that he uses each day leading up to the performance.

When I was getting ready for PASIC, I came up with a routine that I would do every morning before I ran my piece. I’d start with the first column of page one of the “Stick Control” book. Then I had some single hand exercises that I developed to work on some of the problems in [the piece]. I had certain tempos I would do and the number of times I would do it. I had certain sections that I would hit so many times and then do a run-through of the piece.

Baker did this routine every day so that “when it was time to perform, performing on stage was only a certain percentage of that routine.” The body, both physically and psychologically “adapts to that pattern” so “it’s not just about going up and trying to run your piece, the piece becomes a smaller part of that whole routine.” In doing this, the day of the performance “will seem less like a big deal” because it just like any other practice session. “If you practice every day, if you do the right things every day, the recital is just the next day.” Like Nicholson, Baker does follow a performance day routine, but it is “not specific to that one day.” It is a ritual he does everyday in the practice room as the performance approaches.¹⁵¹

Michael Udow does not utilize a performance day ritual or routine because “when you are on tour, things are constantly changing . . . You can’t count on your plane arriving on time or being picked up and getting to the hall on time.” For him, flexibility is most

¹⁵¹ Jason Baker, personal interview, 11 Nov. 2011.

important and trying to maintain a ritual would likely add more stress because, “chances are, your ritual is going to be broken.”¹⁵²

~ **Performance Mentality** ~

Performances are universally stressful and regardless of the performer’s background, experience, or personal rituals, anxiety can still be an issue. Many of the percussionists interviewed expressed that the only way to truly deal with anxiety is to adopt a new performance mentality.

Audience Expectations

First, the expectations of the audience must be considered. In Gordon Stout’s words, “your audience doesn’t necessarily know when you make a mistake and I don’t think they really care most of the time anyway.” The audience isn’t there to count missed notes or mistakes, “they go to enjoy and to feel something.” If the music is played well and the audience gets what they were seeking from the performance experience, “they will forgive mistakes . . . if they even hear the mistakes to begin with.”¹⁵³

Robert Schietroma also believes that the audience’s primary concern is not focused on perfection. He describes his job as a musician similar to that of a pilot. “It’s like getting into a cockpit. Let’s go! Where do you want to go? I’ll take you wherever you want to

¹⁵² Michael Udow, phone interview, 16 Nov. 2012.

¹⁵³ Gordon Stout, personal interview, 3 Nov. 2012.

go.” In the grand scheme of things, the passengers don’t really care much about the color of the seats, the peanuts, or even the in-flight movie. They are mostly concerned with traveling somewhere extraordinary that creates a memorable experience.¹⁵⁴

Brian Zator is also a strong believer in this mentality and makes it the primary focus of his performances.

*I want to perform really well, but I don’t necessarily want it to be about me. I want it to be about the music . . . [and] emote and deliver the best message possible . . . I want [the audience] to have an experience and remember it. If it’s because something I did, great, but if it’s something with the music . . . that brings me comfort too.*¹⁵⁵

To fully feel this connection with the audience, Payton MacDonald prioritizes “listening to the room and what is happening.”¹⁵⁶ This gives him a better connection to the audience so that he can cater to their needs. Realizing and accepting that the audience doesn’t care about mistakes, but instead cares about the musical experience, is the first step to adopting a successful performance mentality.

Personal Expectations

*One thing I’ve learned is it’s ok to strive for perfection, but it’s just unreasonable to expect it of yourself. I just like to walk out and play and I’m at peace with whatever happens. As long as I do the best that I’m capable of, I don’t really care otherwise.*¹⁵⁷ - Gordon Stout

¹⁵⁴ Robert Schietroma, personal interview, 3 Nov. 2012.

¹⁵⁵ Brian Zator, personal interview, 2 Nov. 2012.

¹⁵⁶ Payton MacDonald, personal interview, 3 Nov. 2012.

¹⁵⁷ Gordon Stout, personal interview, 3 Nov. 2012.

Accepting that a performance is not going to be perfect takes a lot of pressure off the performer. Wrong notes are going to happen, it is inevitable. The performer must understand this and come to terms with it. This is an easy concept to understand and sounds simple to embrace, but maintaining that attitude while on stage can be extremely difficult.

Noa Kageyama explains in his article, *How to Care More Without Putting Too Much Pressure On Yourself*, that “the answer is not to care less, but to care more . . . just about different things . . . Making yourself happy with your performances, and being less concerned with trying to gauge what others may or may not think.”¹⁵⁸ When performing, it can feel as if all eyes and ears are intently focused on every note played, and even worse, on every mistake made. When multiple mistakes are made in succession, it’s easy for the performer to lose confidence and motivation, due to an overwhelming sense of failure. This suddenly makes that ‘easy concept’ of accepting mistakes, nearly impossible.

William Moersch rationalizes this situation from a different perspective that has helped him accept, or at the very least, forget about his mistakes and maintain an optimistic attitude during the performance.

The audience exists in one time frame or one frame of reference where they have no awareness of the future. You’re playing new music they’ve never heard before . . . They don’t know what’s coming so they are primarily in the present and they have a small recollection of the

¹⁵⁸ Noa Kageyama, “How to Care More Without Putting Too Much Pressure On Yourself,” 16 Sept. 2012, The Bullet Proof Musician, 26 May 2013.

*immediate past . . . The performer has to be almost exactly the opposite. The performer has to have a small amount of consciousness in the present and pretty much nothing of the past . . . you've played something and it is over and done with. Don't even think about it, whether it went great, whether it went bad . . . most of the attention, I find, has to really be on the future. What's coming next? What do I have to be conscious of next?*¹⁵⁹

Blake Tyson has also learned to accept his performance mistakes and attributes this mentality to a conversation he had with Michael Burritt. Burritt told him “if people want to hear all my right notes, they should buy my CD. But if they want to hear me play, they shouldn’t expect all right notes.” This had a huge impact on Tyson and he said he now tends to be “pretty calm and accepting about what is happening . . . I really don’t get this nervous sweat and nervous energy before a performance [anymore].”¹⁶⁰ Julie Licata has found the same thing to be true in her playing. “I try not to take myself too seriously. Who really cares if I miss a note, really? It’s not going to ruin my life and it doesn’t define me as a human being.” She acknowledged that this mentality takes a while to sink in, but once it does, “you really believe it.”¹⁶¹ Timothy Gallwey agrees with Licata, saying in his book, *The Inner Game of Stress*, that it’s important to make “the distinction between who we are and what we do.”

*We play many roles in life - parent, spouse, golfer, executive - but the outer reality is not who we truly are . . . [It is important to] make that distinction, and then to allow ourselves to shine through without the impediment of concepts and expectations that are not in line with our purpose. Once we do, we can be free of stress and play at our best.*¹⁶²

¹⁵⁹ William Moersch, personal interview, 12 Nov. 2010.

¹⁶⁰ Blake Tyson, personal interview, 3 Nov. 2012.

¹⁶¹ Julie Licata, personal interview, 12 Nov. 2011.

¹⁶² Timothy W. Gallwey, et al., *The Inner Game of Stress*, (New York, NY: Random House, 2009), 3.

Mathew Duvall also believes this philosophy, but makes a clear distinction between his performance mentality and his approach in the practice room. When in the practice room, “go for accuracy” and when in a performance, “go for gesture,” said Duvall. Duvall strongly believes that “playing something technically correct is not worth compromising the gesture and performance.”¹⁶³ Michael Burritt agrees and adds that if accuracy is the top priority during a performance, “we get too obsessed with that [and] we’ll forget about the music.”¹⁶⁴

Lesley McAllister echoes these same concerns in her book, *The Balanced Musician*, stating that “overemphasizing ‘correctness’ may actually lead to performances that sound uninspired, hesitant, and even dull.” She believes that “musicians who make the most impact on their audiences are often the ones who seem the most open and therefore the most human.” This is sometimes best achieved through “unplanned events, mistakes, or even memory slips” because these human mistakes show “precious vulnerability that establishes a connection between the audience and the performer.”¹⁶⁵

Positive Reinforcement

No longer worrying about hitting the right notes may reduce anxiety, but if truly taken to heart, might result in a sloppier performance. So it’s also helpful for the player to maintain positive thoughts about the performance and genuinely believe they will do

¹⁶³ Matthew Duvall, personal interview, 1 Mar. 2013.

¹⁶⁴ Michael Burritt, personal interview, 20 Jan. 2013.

¹⁶⁵ Lesley McAllister, *The Balanced Musician: Integrating Mind and Body for Peak Performance*, (Lanham, MD: Scarecrow Press, 2013), 6.

well. In Timothy Gallwey 's book, *The Inner Game of Stress*, he says that thinking positively may be easier than most people think. "Many participants say they didn't realize they had so many inherent and positive capabilities, but, in fact, humans are hardwired to prefer stability, clarity, and peace to stress, fear, and frustration."¹⁶⁶

Jason Nicholson repeats phrases like "You're going to play well! This is going to be nice. People are going to enjoy it." This type of positive reinforcement always has a much better outcome than thinking negatively. Thoughts like "This is going to suck! [or] I'm not going to play well" are reinforced in the brain and often "become a self-fulfilling prophecy."¹⁶⁷ Putting a positive spin on everything, most of the time results in favorable outcomes. Whenever Blake Tyson feels nervous, he tries to "channel [it] into excitement."¹⁶⁸ By simply changing his mindset, he finds that nerves can actually work to his advantage.

According to Jon Gorrie' book, *Performing in the Zone*, "performance anxiety and excitement are two different manifestations of performance arousal."¹⁶⁹ By channeling anxiety into excitement, Tyson is able to harness the "right amount of positive performance arousal (excitement) . . . to achieve an optimal level of performance."¹⁶⁹

¹⁶⁶ Timothy W. Gallwey, et al., *The Inner Game of Stress*, (New York, NY: Random House, 2009), 21.

¹⁶⁷ Jason Nicholson, personal interview, 2 Nov. 2012.

¹⁶⁸ Blake Tyson, personal interview, 3 Nov. 2012.

¹⁶⁹ Jon Gorrie, *Performing in the Zone*, (Seattle, WA: CreateSpace/Amazon, 2009), 12.

Personal Tendencies

Thinking positively increases confidence, and knowing that the audience cares more about musicality than accuracy, decreases anxiety. Another performance mentality commonly mentioned is to recognize and counteract personal performance tendencies.

The most common performance tendency is playing too fast. When the body releases adrenaline under performance conditions, normal tempos suddenly seem slow and it is awfully easy to begin too quickly or speed up. Michael Burritt has found that when he takes a quicker performance tempo, his kinesthetic memory breaks down. This is because his “hands have learned a certain pace”¹⁷⁰ and at a quicker tempo, suddenly the muscle memory can’t be accessed.

Joshua Smith counteracts this natural tendency by deciding on specific tempos prior to the performance and checking them with a metronome before starting. Using this method, his performances are much “more consistent.” Before he started routinely checking tempos, he constantly felt as if the material he’d worked on in the practice room was suddenly lost during the performance. In the practice room, he’d learned to feel phrasing and physical gestures a certain way, but during performances, the hastened tempos made everything feel completely different. When Smith exactly duplicates his practice tempos on stage, the performances feel “true to what it was like in the practice room.”¹⁷¹

¹⁷⁰ Michael Burritt, personal interview, 20 Jan. 2013.

¹⁷¹ Joshua Smith, personal interview, 11 Nov. 2011.

A second common performance tendency among the percussionists interviewed was failing to maintain the necessary mental focus during a performance. For whatever reason, many musicians catch themselves thinking about totally unrelated topics during a performance. At worst, this can cause a performance train wreck, but usually just results in a slight break or hesitation.

To avoid letting the mind wander, Barry Green suggests in his book, *The Inner Game of Music*, that “focusing our awareness on one element of the present moment is a simple way to direct our concentration, cope with mental and other distractions, and bring us closer to the music.”¹⁷²

When maximum concentration is achieved during performance, Timothy Gallwey referred to this as “relaxed concentration,” in his book, *The Inner Game of Golf*.

*Everyone has experienced the state of relaxed concentration at one time or another during moments of peak performance or experience. In those spontaneous but all too elusive moments of heightened alertness and perception, actions seem artlessly excellent and life seems simple and whole. Even in complicate, demanding situations, the effort needed is clear and actions flow out of us that are uncannily appropriate.*¹⁷³

Most of Christopher Deane’s performance “screw ups” occur when he is “not thinking the same thoughts” that he did in the practice room. To develop the ability to stay mentally focused during the performance, “you have to think the same thoughts when

¹⁷² Barry Green, and W. Timothy Gallwey, *The Inner Game of Music*, (Garden City, NY: Anchor Press/Doubleday, 1986), 43.

¹⁷³ Timothy W. Gallwey, *The Inner Game of Golf*, (New York, NY: Random House, 1998), 194.

you practice it as when you perform it.”¹⁷⁴ Re-creating the practice experience on stage is hard to do, but when accomplished, performances feel grounded and in control.

Steven Schick also believes the best way to keep the mind focused on the piece is “to recreate the feeling of being in a practice room on stage.”¹⁷⁵ He tries to create a focused or surrounded feeling on stage and when he feels like he is alone, and playing for himself, his memory and focus is much better.

Unfortunately, there is not a simple solution to this problem. Timothy Gallwey, in his book, *The Inner Game Of Golf*, says that the only way to keep the mind in the present is through practice. “There is no other way. Every time your mind starts to leak away, simply bring it gently back.” When the player develops “the capacity to focus totally” on stage and channel their “commitment, abilities, and attention . . . in a single direction” they will be “truly conscious and free of fear, doubt, and confusion” during performance.¹⁷³

All the methods described above - performance day rituals, successful performance mentality, and counteracting personal tendencies - revolve around what to do before or during the performance. Ben Wahlund also believes it is important to think about what to do after the performance. “I try to schedule hang time with friends and colleagues after performances whenever possible.”¹⁷⁶ Performances are not possible without an audience, which many times are comprised of the performer’s biggest supporters. So it is important

¹⁷⁴ Christopher Deane, personal interview, 12 Nov. 2010.

¹⁷⁵ Steven Schick, personal interview, 31 Oct. 2012.

¹⁷⁶ Ben Wahlund, email interview, 31 Oct. 2012.

to carve out some time after the performance to visit and give thanks to those who were in attendance.

~ Conclusion ~

Performing can feel like a gratifying validation of hard work and talent, or an embarrassing display of failure. Unfortunately, these two highly contrasting outcomes are not as closely related to preparation as one might expect. Performances take place in real time and before a live audience, and a split second of mental or physical relapse can quickly alter the course of events. The way in which players prepare for their performances is shockingly divergent and distinctive, but each method has a time and place. The only way to find the right combination of techniques is to become familiar with the multitude of proven options and begin testing them.

Every musician is different and will eventually develop a distinctive formula to best prepare for performances. That being said, the best way to prepare one's self for a performance is to practice performing. Many musicians spend obsessive amounts of time practicing their music but only a fraction of their time practicing the performance of that same music. It is a common understanding that if one does not practice their music, the performance of that music will not go very well. Performance is no different, yet many players neglect this aspect of their preparation. It is crucial to practice performing, whether that be for a camera, friend, or an entire room of people. Successful performances are nearly impossible if performing has never been practiced.

Figure 23: Survey – Performance Preparation

A. Practice Habits	If yes, try method...
Do you have a strict daily practice routine?	A1
Are you a procrastinator?	A2
Are you typically prepared weeks in advance?	A3
Do you peak early on occasion?	A3, A6, A9
Do your performances sometimes lack expression or excitement?	A3, A4, A5
Does your progress typically plateau the few weeks before the performance?	A6, A9
Do you have a hard time mentally preparing for a performance?	A8
Do you have a hard time recovering from mistakes?	A5, A7
B. Simulate Performance	If yes, try method...
Does your performance attire sometimes affect your performances?	B1
Do you feel awkward on stage?	B2, B3
Do you have a hard time adjusting to changes in routine?	B4, B6
Does the sound of the performance hall throw you off sometimes?	B2, B9
Are you preparing for an audition?	B4
Are you a very observant person?	B5
Do you always practice in the same room and on the same instruments?	B2, B5, B6
Do you have bad performance anxiety?	B6, B7, B8, B9, B10
Do you dread performances?	D7, D9
C. Performance Day Rituals - Physical	If yes, try method...
Do you have a hard time concentrating during performance?	C1, C2, C3
Do your performances sometimes lack expression or excitement?	C1, C4, C6
Do you have a hard time getting excited for performances?	C5
Do your performances usually start poorly?	C3
Do your muscles shake when you get nervous?	C4
Do you experience severe anxiety before walking on stage?	C5, C8
Do you experience drowsiness after large meals?	C6, C7
Do you have a hard time concentrating while performing?	C6, C8
D. Performance Day Rituals – Psychological	If yes, try method...
Do you have a hard time getting into performance mode?	D1
Do you overhype for performances?	D2, D8
Do you dread performing?	D2, D8, D9
Does it take you a long time to get warmed up?	D3
Do your performances sometimes lack energy and excitement?	D4, D5, D6
Do you typically start performances poorly?	D4, D7, D8
Do you have a hard time focusing while performing?	D4, D7, D8
Do you typically rush during performances?	D5, D7
E. Performance Mentality	If yes, try method...
Do you have bad performance anxiety?	E1, E2, E4
Do you get discouraged easily?	E2, E3, E4
Do you commonly make similar errors during performances?	E5
Do bad performances tend to snowball?	E2, E4, E6
Does the audience easily distract you during performance?	E6
Does your mood generally have a major impact on your performance?	E2, E4

Figure 24: Outline – Performance Preparation

Method		Pages
A. Practice Habits <ol style="list-style-type: none"> 1. Don't Change 2. Practice More 3. Fewer Run-Throughs 4. Taper Hours 5. More Mental Practice 6. Change Focus 7. More Run-Throughs 8. Cold Run-Throughs 9. Down Tempo Run-Throughs 		204-213
B. Simulate Performance <ol style="list-style-type: none"> 1. Performance Attire 2. Performance Hall and Instruments 3. Entrance / Exit Routine 4. Audition Procedures 5. Alter Practice Environment and Set-Up 6. Challenge Comfort Zone 7. Play for People 8. Simulate Physical Characteristics 9. Mock Recitals 10. Self Recordings 		213-229
C. Performance Day Rituals <ol style="list-style-type: none"> 1. Good Night Sleep 2. Nap Before Performance 3. Alone Time Before Performance 4. Exercise Morning of Performance 5. Physical Exercises Prior to Performance 6. Healthy Diet 7. Light Meals 8. Supplements 		229-239
D. Performance Day Rituals – Psychological <ol style="list-style-type: none"> 1. Cancel Obligations Prior to Performance 2. Maintain Daily Schedule 3. Morning Practice Session 4. Mental Run-Throughs 5. Super Slow Run-Through 6. Run-Through with No Dynamics 7. Visualize First Phrase on Stage Before Playing 8. Meditate / Mantra 9. Distracting Activity 		239-249
E. Performance Mentality <ol style="list-style-type: none"> 1. Audience Expectations 2. Accept Imperfection 3. Prioritize Musicality over Accuracy 4. Think Positively 5. Compensate for Personal Tendencies 6. Maintain Focus 		249-259

Copyright © Colin Jeffrey Hill 2013

CHAPTER 8: CONCLUSION

The previous six chapters unmistakably demonstrate the great diversity that exists in the practice habits of successful percussionists. Clearly, there is not a single best way to practice, and in fact many of their habits and philosophies were in direct contradiction with each other's. As a result the combination of methods used to achieve success is uniquely individual. While some of the percussionists interviewed do share commonalities in certain areas, no two have identical overall regimens. Where similarities do exist, they seem to more accurately reflect like personalities and learning styles rather than evidence of a preeminent method.

However, this outcome does suggest that there is most likely a 'best' practice method for each musician, but discovering and developing this individualized formula can be a great challenge. As is evident through the investigation of these thirty-six percussionists, there are an infinite number of permutations one can use to create their 'perfect' practice routine. Finding the unique combination of methods and philosophies that guarantees the greatest chance for success may take years. One may easily assume that the system they currently utilize is ideal, but until other preferred techniques are investigated, they can't be certain.

A frequent sentiment expressed throughout these interviews was the idea that practice habits are in constant evolution and development. As lifelong learners, all the

percussionists interviewed are continuously seeking improvement, regardless of their status or age. For this reason, every serious player would be best served to try and experiment with as many methods as possible. After all, every method and philosophy documented in this dissertation has been validated by the implementation and willful testimonial of at least one successful percussionist.

This process is obviously time consuming and likely never-ending, which is in essence, a fundamental trait of musical mastery - the extreme devotion of *time* to practice. There have always been differing opinions as to the relative significance of talent vs. hard work in the roots of mastery. The percussionists interviewed were no different than the world-class experts studied in many other fields, in that they achieved mastery only after reaching the apparent benchmark of 10,000 practice hours during the first twenty years or so of their lives. While gifted individuals are often credited with having ‘natural talent,’ the statistics of this research, as well as numerous other studies, clearly show that success and mastery in any field are primarily attributed to hard work.

So if practicing is the key to success, why is it such a secretive and private activity? Most people suddenly change their practice habits as soon as somebody walks in the room or pauses outside the door to listen. Ironically, the single element that is most closely associated with success is rarely shared with others. How does one know if they are practicing correctly? Have they ever been taught how to practice or critiqued on their practice habits? For most individuals the answer is no.

Learning how to practice should be no different than learning any other musical skill. The teacher should explain the general concept and mechanics involved, demonstrating when appropriate. The student will be given a few exercises or assignments and then sent home to practice. The student will return the following lesson for demonstration, at which time they will be given constructive criticism. Why should practicing be any different? Especially when it is the determining factor of success.

As teachers and students, talking about practicing isn't enough. It needs to be done in front of others and discussed openly to ensure it is executed 'correctly' and efficiently. Like playing a snare drum roll, developing great practice habits takes time. It will not be done impeccably the first time and only through sharing, discussing, and critiquing will practice habits be perfected.

~ Further Research ~

None of the thirty-six percussionists interviewed were given the ten questions in advance. There were pros and cons to presenting the questions prior to the interviews, but I decided in favor of spontaneity, and as mentioned previously, the interviewed were wonderfully open and revealing. However, that spontaneity also likely implies that some answers were not as thorough or clear as intended and some ideas or concepts may have been omitted altogether. As a result, additional details and valuable ideas could be obtained if each of the percussionist's transcripts were submitted to him or her with the invitation to read, edit, and add further content as they see fit.

This research was based solely on the practice habits of percussionists who focus primarily on classical and contemporary literature. This study could be further expanded to include percussionists who specialize in improvisatory music, such as jazz and other world music genres. It would be very interesting to learn which practice habits are similar or different between the two groups.

Practicing improvisation requires the player to perfect a wide range of vocabulary that can be spontaneously selected depending on the style or tempo of the given musical situation. These decisions are inspired and influenced by the musical ideas of the other musicians, the structure of the composition, and the playing environment. This is very different than repetitively rehearsing a specific and pre-determined musical structure, and some correlations between specific methods and musical styles would seem likely.

On a broader level, this research could also be replicated to include the practice habits of other instrumentalists. Again, it would be quite interesting to investigate how the practice methods and philosophies compare between groups. Although many of the specific methods are obviously unique to the designated instrument, are the practice philosophies and approaches as wide reaching and diverse in other instrumental areas? Do other instrumentalists share methods and philosophies with the thirty-six percussionists interviewed?

~ Practical Applications ~

This dissertation is unique in that it explores the personal practice habits of many highly successful and well-known percussionists. For this reason alone, it should be especially interesting to aspiring percussionists and could be re-formatted and condensed to a more user-friendly *method book* on practice. Less experienced percussionists typically have a limited number of practice tools and this resource would enable them to sample and explore new, proven methods and apply them to their own practice habits. This method book would also be useful for educators, giving them multiple approaches and methods to try with their students. Frequently, when less experienced musicians struggle, it is rarely a reflection of their abilities but rather stems from the way they learn and how they practice. Having a variety of viable alternatives to try when facing obstacles may make a significant difference in one's outlook and ultimate success.

Another way to maximize the educational benefits of this research is to actively share these findings in conference or seminar settings. I have already presented these findings at several workshops, conferences, and educational institutions, at both the high school and college level, and I plan to continue sharing this research with as many people as possible. I hope that the proven practice habits of these thirty-six successful percussionists can be explored and adapted by students, educators, and performers alike, ultimately leading to the fulfillment of their greatest musical potential.

*The master of any game is generally a master of practice.*¹

- George Leonard

Copyright © Colin Jeffrey Hill 2013

¹ George Leonard, *Mastery: The Keys to Success and Long-Term Fulfillment*, (New York, NY: Penguin Books LTD, 1992, 77.