



# Percussive Notes Online Research Edition

A scholarly publication of the Percussive Arts Society

Volume II • April 2024

PERCUSSIVE  
ARTS SOCIETY

# Percussive Notes

# Online Research Edition

A scholarly publication of the Percussive Arts Society

**Volume II • April 2024**

*Percussive Notes Online Research Edition* is a peer-reviewed, online publication that aims to promote advanced research and expand academic perspectives on topics in percussion relating to areas including, but not limited to, historical musicology, critical theory, aesthetics, musical analysis, performance practice, interdisciplinary studies, ethnomusicology, and interviews.

## **Editor**

Sean Millman, Ph.D.

*The Editor would like to express his gratitude to the referees who reviewed the submissions in this volume.*

# Percussive Notes Online Research Edition

Volume II • April 2024

Contributors .....	4
Handedness: Are Drummers Right-handed or Left-handed? They're Neither and Both! by Marc Dicciani .....	6
Comparison of Online and in Person Group Drumming as a Medium to Support Social and Emotional Learning of University Students by K Michelle Lewis .....	15
Feedback Loops Between Drummers and Tap Dancers: Papa Jo Jones by John MacDonald .....	25
Shifting the Paradigm: challenging conventions of classical percussion performance and presentation Music has the irresistible power to strike at our head and heart by Ryszard Pusz .....	43
Shaky Hands and Cold Feet: Analyzing Disability in Body Works by Ross Aftel .....	68
Amadeo Roldán's Ritmicas V and VI (1930) and Edgard Varèse's Ionisation (1931): Issues of Low and High Art in the Pan-American Modernist Era of the Percussion Ensemble by Haley Nutt .....	78

# Contributors

**Ross Aftel** (BM, BA East Carolina University, MM University at Buffalo, MA, DMA SUNY Stony Brook). As a performer, he has worked on projects such as the North American and Asian premieres of Karlheinz Stockhausen's STRAHLEN, a portrait festival for Xu Yi (giving the North American premiere of many of her pieces including conducting her 90 minute film score to the 1934 Wu Yong Gang film, *The Goddess*), collaborated with all of the composers of the Japanese Women's Composers' Meeting (JWCM), toured Serbia with a commissioned program for solo percussion and string quartet, premiered Dylan Ibrahimian's electroacoustic opera *The Oath* in Beijing, and worked with many other composers including Szilárd Mezei, Malika Kishino, Maria del Alvear, Tomoko Momiyama, Ray Anderson, and others. Aside from performing, Ross has composed and collaborated extensively with dance and drama, having played for Doug Varone and was an accompanist for SUNY Brockport, University at Buffalo, and the Perry Mansfield Dance Camp. As a composer, Ross recently created a concert length electroacoustic program entitled, *Be 記得* which was presented 6 times with the assistance of the Taiwan National Arts Council. He also collaborated on music for Masha Ma at the 2022 Shanghai Fashion week. From 2015-2020 Ross was the archivist for the Emerson String Quartet. As a musicologist, he has also been a guest lecturer on his work regarding Chinese theories of propensity in performance studies, disability in performance, and inclusive pedagogies.

**John MacDonald** is a writer, composer, and drummer based in the San Francisco Bay area. After completing his studies at the Berklee College of Music and the New England Conservatory, he performed alongside Taylor Dayne opening for Earth, Wind, & Fire, Guggenheim Fellow David Fiuczynski, and David Gilmore. While freelancing as a composer and sound designer for video games and short films, John continues to present his ludomusicological research on breakbeat music in games, with recent presentations at Oxford University, the Pop Culture Association, the University of Calgary, and the University of Manchester.

**Marc Dicciani** is a Professor of Drumset at the University of the Arts in Philadelphia, and a busy performer, teacher, clinician, and researcher with dozens of international concert dates and clinics throughout the year. He's performed with a wide range of artists including Randy Brecker, Jon Faddis, Stanley Clarke, Robin Eubanks, Christian McBride, Frank Sinatra, Sammy Davis Jr., Ben Vereen, Tom Jones, Roger Daltrey, the Moody Blues, Natalie Cole, Mel Tormé; the Dallas, New Orleans, Honolulu, Nashville, Philadelphia, Buffalo, San Diego, and National Symphony orchestras; in ensembles with Doc Severinsen, Ron Carter, James Moody, Ernie Watts, Stevie Wonder; recorded for network TV/film, and played *The Tonight Show* and Golden Globe Awards. Marc has lectured and conducted clinics at countless universities in the U.S. and schools in England, Chile, Japan, South Korea, and Singapore, at international conferences (IAJE, JEN, & PASIC), and regional conferences (PMEA, NJMEA, CMS, Grammy in the Schools). He recently received Yamaha's prestigious Drumset Education Legacy Award, and was named Artist-in-Residence at Jefferson University Hospital's Health Design Lab to research neuroscience and drumming. He's a member of the PAS Scholarly Research Committee, and the board of the the National Jazz Festival, and teaches a summer graduate drum set course for K-12 educators at Villanova University. Marc's articles are published in leading magazines and journals, and his podcasts and interviews can be seen on numerous websites, including his own. He is an artist/clinician for Yamaha Drums, Zildjian Cymbals, Vic Firth Drumsticks, Remo Drumheads, and Latin Percussion.

**K. Michelle Lewis** Yeshima (they/them) is an educator and percussionist of 27 plus years and is currently self-employed at DrumSmart LLC where they provide group drumming opportunities in world music, professional development opportunities for music educators, and drum circle facilitation to support social-emotional learning. As a lifelong learner, Yeshima is pursuing a Ph.D. in Music Education from the University of Kentucky. Their research interests are the teacher's perceptions of a mindful-based social-emotional group drumming curriculum. Yeshima is a certified Remo Health Rhythms Facilitator, Beat the Odds Facilitator, Village Music Circles trainee, Tam Tam Mandingue Apprentice, World Music Drumming Level 1, World Music Pedagogy, Dalcroze Level 1, and has received their Orff Levels 1-3 at the University of Kentucky. A recent addition to the Percussive Arts Society Interactive Drum Committee, Yeshima is excited to share their talents as a researcher, author, and editor. In addition, they have been added to the Remo Health and Wellness Roster as a featured drum circle facilitator. Yeshima's "soul" purpose is to share the spirit of the drum by supporting colleagues around the world and sharing their innovative music lessons at music conferences, community events, and online. In addition, they are the host of the Power of Percussion Podcast where they explore the many facets of how percussion can be used to heal the body, mind, and spirit. Yeshima is a published author at F-flat Books and their articles can be found in *The Orff Echo*, *Percussive Notes*, and various music education journals. When Yeshima is not drumming, you can find them tending the forest with their cat Giovanni, staring at trees, or listening to nature's symphony of sound.

**Dr. Haley J. Nutt** is an Instructor of Musicology and Percussion at Western Washington University. She holds a PhD and master's in musicology from Florida State University and a bachelor's in music education from Texas Christian University. Her research on gendered and institutional aspects of American percussion ensemble practices has been published in journals such as the *Journal of Historical Research in Music Education* and *Percussive Notes*, and she has enjoyed sharing her work at various musicology and percussion conferences around the country. Haley is a member of the PAS Scholarly Research Committee and the PAS Diversity Alliance.

**Ryszard Pusz** has studied, performed, taught, researched, composed and commissioned works for percussion across five continents, and is the recipient of Sounds Australia awards and an Australia Council Fellowship. He is currently focusing on researching elements of percussion composition and performance.

# Handedness: Are Drummers Right-handed or Left-handed? They're Neither and Both!

by Marc Dicciani

## Abstract

Through long-standing customs and tradition, both cultural and musical, many drummers have come to believe that the instrument set-up and technique of playing the drum set is, in part, determined alone by the belief that we are right- or left-handed. In this paper, I will summarize some of those persisting opinions and how they've come about, and present information based on recent findings in medicine, genetics, neuroscience, and physiology that justify a deeper examination of many conventional practices and viewpoints. Much research, and numerous papers, studies, journals and books are cited, and comparisons are drawn with other professional disciplines that rely on similar motor skill development for learning, successful application, and execution. My paper contends that there are no right or wrong choices regarding the right/left crossed/open-handed, traditional/matched decisions we make, only that there are some that are bio-mechanically and neurologically more natural and which may aid in skill development and ultimately increase our facility and drumming vocabulary and options. Research in neuroplasticity, handedness, brain laterality, motor control, skill development, and approaches to human movement are complex, fascinating, ongoing, and dynamic. Understanding how these apply to many areas of drumming, the parallels between those and countless other fields and subjects, and how our bodies and nervous systems are connected with playing drums will allow us to make more informed choices about technique, learning protocols, playing methods, and equipment set-up.

**M**ost of us drummers and percussionists are familiar with the history and development of the drum set as well as the numerous grip and hand, wrist, and arm movement techniques that have resulted over the years (see my recent article, *The Grip Debate*).<sup>1</sup> In this article I'm going to outline some issues that impact choices that we all make - or that have been made for us - about technique, practice, learning, and playing the drums. I also want to provide some important information relating to the latest research and findings in the areas of science, physiology, and medicine in order to position drumming in a larger context. From a very early age, through a combination of genetics, mirroring, culture, and

preference, most of us began to favor the use of one hand over the other for everyday tasks. This is often referred to as 'handedness'. Most people self-identify as being right- or left-handed depending on which hand they use to write. What seems like a relatively simple either/or determinant of handedness is actually not so simple, and in the case of drumming, may not be accurate or helpful, especially as it relates to equipment set-up, cross-over and open-handed playing, and even grip. It should be noted that there is a potential chicken-and-egg situation with skill and preference as it relates to drumming: does the preference exist because one hand is more skilled, or is that hand more skilled because it is the preferred hand and therefore used more frequent-

ly? It seems likely, though, that handedness is a result of a few factors rather than only an inborn skill difference.

Although there is no standard, empirical definition for measuring handedness, much research continues to attempt to define and quantify it. However, depending on which part of the world is surveyed and how it's measured, it is estimated that somewhere between 75% and 90% of the population in Western Countries prefer the use of the right hand over the left for executing certain tasks.<sup>2,3,4</sup> Numerous online questionnaires claim to accurately measure your degree of handedness on a scale from strong left-, to mixed-, to strong right-handed. In these surveys, in addition to your preferred hand for writing, you're asked to indicate which hand you

always, or most often use to brush your teeth, hold a cup, throw a ball, open a jar or box, use scissors, etc. When completed, you're given a "Laterality Index" (LI) indicating where you land on the handedness scale.<sup>5,6</sup>

Although it might be interesting to discover your 'score', it really should make no difference to how you learn, practice, play, and set-up the drums. A drum set is not a right or left-handed instrument, and it's best to approach it as a two-handed one where both hands are coordinated, and work together in tandem with the right and left foot.

In a paper in the *Journal of Motor Behavior*,<sup>7</sup> the authors state...

*The study of the neural control of voluntary movement has largely relied on an assessment of dominant (typically, right) arm function under a variety of task conditions, an approach that has led to the elucidation of some key motor control principles. However, the predominant emphasis on examining dominant arm performance has resulted in a somewhat erroneous view of motor control - that the control processes for non-dominant arm function are simply weaker analogues of those of the dominant arm. Over the past decade, our laboratories have collaboratively demonstrated that this is not the case.*

Yes, we may feel more comfortable using one of our hands to write, draw, and use a spoon, but when we play drums we need both of our hands to be equally skilled and coordinated to satisfy the musical demands for fast, precise, and uncoupled movements. The same is true for timpanists, vibraphonists, congueros, and pianists, as well as surgeons, airline pilots, and athletes. Although some of these, and well as guitarists and violinists, employ differing skill sets in each hand, those skills are equally demanding and demonstrate the result of training and practice to reduce hand dominance asymmetry. This also applies to us in our everyday lives – we need both hands working together to drive a car, use a computer, and eat, even

if the skills for each hand are different.

The hands are our primary means of motor interaction with the environment. Their neural organization is fundamentally asymmetric, meaning both sides of the body work together and can perform separate tasks simultaneously. In playing the drums, as with most musical instruments, we are heavily reliant on the development of motor skills and neural pathways in order to physically play. The notion of independence, interdependence, and simply playing single strokes are examples of this asymmetry.

This also applies to the use of our feet. Whether we're playing rhythmic independence with the left foot on the high hat, clavé rhythms with our left foot using a bracket and a cow bell, or right and left foot double-bass drum patterns, we benefit by having both feet equally developed physiologically and neurologically, and perfectly coordinated with our hands.

We train our fingers, hands, and arms to work with our brains and nervous systems to enable us to achieve a level of control and fluency. The incredible physical dexterity, articulation, and timing that musicians are able to exact is aided, in part, by mechanoreceptors - neuroscientists' term for sense organs. The highest concentration of these sense organs are in our hands and fingers, clearly essential to drumming. Equally important to this discussion, this tactile acuity is the same in both hands.<sup>8,9,10,11</sup>

The high concentration of these sensory receptors is what enables violinists, for example, to play the correct notes, in tune, with their left hand on a very small fretless fingerboard, accurately at breath-taking speed. This is no small feat considering that the vast majority of them are "right-handed" and they've learned to do this with their non-dominant hand.

According to Dr. Molly Gebrian, Professor at the University of Arizona, and professional violist and researcher with a background in neuroscience...

*All bowed string players (unless they have*

*a severe abnormality on one side of their body) learn to play with the left hand fingering the instrument and the right arm in charge of bowing. It's irrelevant whether the student is right or left-handed. This is because the brain is highly plastic (changeable) and both the motor cortex (which controls voluntary movement) and the somatosensory cortex (which controls the perception of sensation from the body) change in response to how we use our bodies. In the brains of string players, for instance, the parts of the motor and somatosensory cortices that control the left-hand fingers are significantly bigger than the parts that control the right-hand fingers. This is true whether someone is right or left-handed and it has developed in response to training. These areas are also bigger than in non-musicians.<sup>12</sup>*

Often, we drummers refer to the dominant hand as our strong hand and our non-dominant as weak. These designations are most likely faulty. As evidence, you need only watch skilled drummers play and, regardless of the grip or stick technique they use, or how they set up their instrument, try to determine their strong and weak hand. Even more illustrative of the difficulty of this task, try asking a non-drummer to make this distinction.

The degree of handedness (dominant vs. non-dominant) as it affects drumming is greatly altered through practice and training, and its neural basis changes over time. This means that how and what we do, and how we practice and play our instruments, produces dynamic changes to the cortex of the brain. Our brains and nervous systems adjust as a result of input in the form of practice.

*Neuroplasticity can be viewed as a general umbrella term that refers to the brain's ability to modify, change, and adapt both structure and function throughout life and in response to experience.<sup>13</sup>*

Due to preference and more frequent use of the dominant hand over the non-dominant hand in everyday life,

the non-dominant hand may be slightly weaker and less skilled when we first begin to play the drums. However, it can catch up very quickly and has the potential to become perfectly coordinated with, and equal to the dominant hand/arm through correct practice. For instance, when we first start to work on alternating singles, our dominant hand has better control and more strength. But, over time, the singles begin to even out. Eventually, and when practiced correctly, there is no discernible difference between the mobility of the hands, evenness of strokes, and the sound produced. Again, our brain and body respond and change according to input and practice.

Here's another example: if we've been playing a certain rhythm with our right hand for a number of years (let's say, the jazz ride cymbal pattern), and then we try to play the same rhythm with our left hand, we notice that it feels uncomfortable. This is not because our right hand has more innate fine motor control; it's because our sensorimotor systems and brains have developed that skill in a nuanced way through lots of playing.<sup>14,15</sup>

In fact, if you watch experienced jazz drummers playing jazz time on the ride with the 'dominant' RH, you'll notice that the 'non-dominant' LH is playing intricate, continuously changing, shaded rhythms on the snare, toms, etc., often executing more difficult and precise work than the 'strong' hand.

Ironically, if we consider handedness as an important issue in how we approach playing, we actually may be able to progress faster by reversing the roles of our hands. In other words, the more dynamic, changing, nuanced rhythmic elements could, perhaps be more quickly learned and played by the dominant RH, while using the non-dominant LH for the less-changing, less-active elements (jazz time, straight 8ths, etc).

Consider this: let's say we're 'right-handed' and playing a funk pattern. The right hand plays 8th notes on the high hat or ride cymbal and the left hand plays 2 & 4 along with some ghost notes on the snare.

If we try the same pattern but switch the rhythmic roles to the opposite hand, we'll notice that our right hand does not have the same degree of control of those ghost notes as our left hand. In addition, the left (non-dominant) hand feels awkward even though it may be playing straight 8th notes. If our dominant hand holds all of the fine motor skills this switch should present no problem. So why does it not sound or feel as good? Simply, our brain responds to input, and the techniques we've used to play that pattern through years of repetition are deeply ingrained in our sensorimotor systems.<sup>16</sup>

Of course, we could re-learn that pattern by switching hands, but what would be the point of doing that? That neural memory has developed in us through time and practice, so the benefits of changing course are, debatably, slim to none.

The bottom line here is that our hands become very skilled through consistent practice because our brains respond to input.<sup>17,18,19,20</sup> There are multiple learning styles and how we learn and which of these we use depends a great deal on what we're learning. We can have multiple learning styles and even use aspects of all of them, but for the most part we are visual.<sup>21, 22, 23</sup>

Seeing primes the body for doing, which is one reason so many beginners, and even non-drummers, assume that crossing the RH over the LH to play on the high hat is the correct way. This is a form of visual learning by imitation.<sup>24</sup> Although we've adapted and made that work, it is neither correct nor incorrect, but rather just one way to play.

We all know that many techniques drummers use and have used over the years have been handed down over many decades. Some of these techniques are typically not the result of research into how our bodies actually move and how our brains and nervous systems work. Most of us have learned through observing, or being told, that if we're 'right-handed', that's the hand that should be playing on the high hat by crossing

over the left hand playing on the snare. Many of us have done this without question for decades, thereby creating a few unnecessary challenges for ourselves by believing that this cross-handed method of playing is the 'correct way' instead of it being 'one way' to play. If we've been crossing the right hand over the left to play on the high hat we can continue to do that. If we don't encounter problems and if we feel comfortable and uncompromised playing that way, there is no need to change. However, if we want to experiment with some new patterns playing open-handed with the left hand on the high hat (or any sound on the left side of the kit) while moving the right hand freely around the right side of the kit, then we should practice and develop them that way. Whichever technique we decide to use (crossed or open-handed), it should be determined by how and what we want to play, and not because we think that we're right or left handed.

Related to handedness is the concept that a drum kit should be set up differently for a 'left-handed' person. If you've set up this way for your entire career, then keep playing that way. However, given the ideas presented above, it is my belief that beginners not arrange a drum kit differently on the basis of perceived hand dominance. Pianos, vibraphones, timpani, saxophones, violins, etc. are not designed differently for 'righties' and 'lefties' - they don't need to be, nor does a drum kit. Adapting, adjusting, learning, and enjoying playing the drums is within everyone's reach regardless of which hand you write your name with. Renowned vibraphonist Tony Micelli states that whether playing with two or four mallets,

*Our hands assume roles because of the layout of the instrument, it doesn't matter if we think we're right- or left-handed, our hands must be equally skilled.*

Eight-time Grammy nominee as a leader, famed Latin and Jazz drummer, percussionist Bobby Sanabria states that...



Regardless of which hand might be your dominant hand, in order to play drums, congas, timbales, bongos, vibes, marimba, timpani, and any type of percussion at a high level, you can't have a weak hand. You need to have them both functioning pretty much evenly. And if you're talking specifically about the drum set? That means your feet as well. With that in mind, a good piece of advice, and I'm serious, is learn how to dance.

Don Liuzzi, principal timpanist with the Philadelphia Orchestra, considers the timpani...

*To be a 2-handed instrument that requires both hands to be highly skilled.*

Professor Liuzzi is a right-handed person who has trained his left hand to do more work, in part by using the American system with the low drum on left side thereby forcing the left hand to play stronger on the low drum.

*I also encourage my students to practice at the drum set placing the ride cymbal on left side and practicing "riding" with the left hand, developing better dexterity.*

Due to an injury, Don had to quickly incorporate an amended technical grip for a few months, creating a new neural pathway. It is a grip he still occasionally uses, enabling him to continue to perform at a high level.

Personally, I have 40+ years of playing the high hat mostly with my right hand, and it could take years for me to develop the same feel and comfort by switching. However, I do practice new rhythmic patterns and even some common grooves open-handed if this allows my right hand to move more freely around the drums. There are no physiological or neurological reasons stopping or inhibiting any of us from trying new techniques, and unfamiliarity with a different way of playing can be expected.

As I mentioned earlier, the science of neuroplasticity is a fact - the brain is 'plas-

tic' and mutable, and it changes based on what we do, think, intensely experience, learn, study, and practice. Dr. Trisha Stratford, a clinical neuro-psychotherapist, author, and university lecturer, states that it can take, on average, 8 weeks to begin to develop a new neural pathway (a way of playing something new).<sup>25</sup> However, in some cases, depending on the complexity of the activity, it can take three or more months for a new brain map, equal in complexity to an old one, to be created in the motor cortex.

If you do develop a new neural memory (sometimes called muscle memory), it doesn't negate the other pathways. In fact, learning something new is aided by what you've already learned and will make the new learning quicker. Skill learning consists not only of the learning process itself, but also the ability to transfer what has been learned to new conditions and task variants (savings of learning). This is sometimes called "transfer of learning."<sup>26</sup> There is also growing evidence that both sides of the brain work hard to learn the rhythms and 'roles' designed and intended for the opposite hand, even if you rarely play it that way. All those years of practicing something with one of your hands has actually inadvertently transferred some, or much, of that 'vocabulary', or skill to the other hand automatically.<sup>27, 28, 29</sup>

Given all of this, I believe that the drum set is neither a right or left-handed instrument and the learning, practice, performance, and set-up reflect that in order to maximize development. A little bit of research, questioning, and fact-finding will help us all separate fact from fiction and enable more informed choices about technique, learning, playing methods, and equipment set-up. Handedness, motor control, skill development, and computational and experimental approaches to human movement are complex and intriguing issues, as well fascinating areas of research which remain ongoing and dynamic.

Neuroscientists, psychologists, geneti-

cists, medical professionals and others including *Jorn Diedrichssen, PhD.*, Western Research Chair for Motor Control and Computational Neuroscience, University of Western Ontario, *Daniel Wolpert, PhD.*, Professor of Neuroscience and member of the Zuckerman Mind Brain and Behavior Institute at Columbia University, and *Dr. John Krakauer*, Professor of Neurology and Neuroscience, and Director of the Center for the Study of Motor Learning and Brain Repair at Johns Hopkins are among the leaders in these areas. Although the full story continues to unravel, much is already known and we can use that to our advantage as players and teachers as we develop, think, question, and learn throughout our lifetimes.

## REFERENCES

- Anguera, Joaquin A., Colleen A. Russell, Douglas C. Noll, and Rachael D. Seidler. "Neural Correlates Associated with Intermanual Transfer of Sensorimotor Adaptation." *Brain Research* 1185 (2007): 136–51. <https://doi.org/10.1016/j.brainres.2007.09.088>
- Bradford, William C., *Reaching the Visual Learner: Teaching Property Through Art* (September 1, 2011). *The Law Teacher* Vol. 11, 2004, Available at SSRN: <https://ssrn.com/abstract=587201>
- Dicciani, Marc. "The Grip Debate: Traditional, Matched, and Countless Variations of Holding and Moving the Sticks." *Percussive Notes*, June 2022. [http://www.dicciani.com/materials/Marc\\_Dicciani\\_article\\_The\\_Grip\\_Debate\\_Traditional\\_Grip\\_Or\\_Matched\\_Grip\\_Which\\_Is\\_Better.pdf](http://www.dicciani.com/materials/Marc_Dicciani_article_The_Grip_Debate_Traditional_Grip_Or_Matched_Grip_Which_Is_Better.pdf)
- Diedrichsen, Jörn., Wiestler Tobias, Waters-Metenier Sheena., *Effector-Independent Motor Sequence Representations Exist in Extrinsic and Intrinsic Reference Frames*. April 2014. *Journal of Neuroscience*, 34 (14) 5054-5064; DOI: 10.1523/JNEUROSCI.5363-13.2014
- Diedrichssen, Jörn., Western Research Chair for Motor Control and Computational Neuroscience, University of Western Ontario
- Gebrian, Molly. March 2021, personal interview quote
- Higgins, Susan. "Motor Skill Acquisition." February 1991, *American Physical Thera-*

- py Association 71(2):123-39. doi: 10.1093/ptj/71.2.123. PMID: 1989008.
- Holder, M K. "Why Are More People Right-Handed?" *Scientific American*, November 1, 2001. <https://www.scientificamerican.com/article/why-are-more-people-right/>.
- Huber, Meghan E., Nikita Kuznetsov, and Dagmar Sternad. "Persistence of Reduced Neuromotor Noise in Long-Term Motor Skill Learning." *Journal of Neurophysiology* 116, no. 6 (2016): 2922–35. <https://doi.org/10.1152/jn.00263.2016>.
- Huberdeau, David M., Krakauer, John W., and Haith, Adrian M. "Practice Induces a Qualitative Change in the Memory Representation for Visuomotor Learning." *Journal of Neurophysiology* 122, no. 3 (2019): 1050–59. <https://doi.org/10.1152/jn.00830.2018>.
- Jań ncke L., Schlaug Gottfried., Steinmetz H. "Hand Skill Asymmetry in Professional." 1994 *Musicians Brain and Cognition* 34, 424–432 (1997) Article # BR970922)
- Jawed, Soyiba, Hafeez Ullah Amin, Aamir Saeed Malik, and Ibrahim Faye. "Classification of Visual and Non-Visual Learners Using Electroencephalographic Alpha and Gamma Activities." *Frontiers in Behavioral Neuroscience* 13 (2019). <https://doi.org/10.3389/fnbeh.2019.00086>.
- Krakauer, John. Professor of Neurology and Neuroscience, and Director of the Center for the Study of Motor Learning and Brain Repair at Johns Hopkins University
- Liuzzi, Don. principal timpanist, Philadelphia Orchestra, faculty at Curtis Institute of Music, personal interview quote
- Lopes, M.C., and J. Santos-Victor. "Visual Learning by Imitation with Motor Representations." *IEEE Transactions on Systems, Man and Cybernetics, Part B (Cybernetics)* 35, no. 3 (2005): 438–49. <https://doi.org/10.1109/tsmcb.2005.846654>.
- Merrett, Rebecca. "A Neuroscience Approach to Innovative Thinking and Problem Solving." *CIO*, July 27, 2015. <https://www2.cio.com.au/article/580509/neuroscience-approach-innovative-thinking-problem-solving/>.
- Micelli, Tony. Professor of Vibraphone, The University of the Arts, and jazz vibraphonist, personal interview quote
- Mutha, Pratik K., Kathleen Y. Haaland, and Robert L. Sainburg. "The Effects of Brain Lateralization on Motor Control and Adaptation." *Journal of Motor Behavior* 44, no. 6 (2012): 455–69. <https://doi.org/10.1080/00222895.2012.747482>.
- Négyesi, János, Péter Négyesi, Tibor Hortobágyi, Sai Sun, Joji Kusuyama, Rita M. Kiss, and Ryoichi Nagatomi. "Handedness Did Not Affect Motor Skill Acquisition by the Dominant Hand or Interlimb Transfer to the Non-Dominant Hand Regardless of Task Complexity Level." *Scientific Reports* 12, no. 1 (2022). <https://doi.org/10.1038/s41598-022-21962-2>.
- Perelle, I B, and L Ehrman. "Behavior Genetics Association Abstracts." *Behavior Genetics* 24, no. 3 (1994): 217–27. <https://doi.org/10.1007/bf01071565>.
- Peters, Ryan M., Erik Hackeman, and Daniel Goldreich. "Diminutive Digits Discern Delicate Details: Fingertip Size and the Sex Difference in Tactile Spatial Acuity." *The Journal of Neuroscience* 29, no. 50 (2009): 15756–61. <https://doi.org/10.1523/jneurosci.3684-09.2009>.
- Purves D, Augustine GJ, Fitzpatrick D, et al., editors. *Mechanoreceptors Specialized to Receive Tactile Information*. 2001 Neuroscience, 2nd edition. Sunderland (MA): Sinauer Associates
- Sanabria, Bobby. Latin and Jazz drummer and percussionist, personal interview quote
- Schlaug G., Jań ncke L., Huang Y., Steinmetz H. *In Vivo Evidence of Structural Brain Asymmetry in Musicians*. 1995, *Science*, 267, 699–701
- Schlaug, Gottfried. "The Brain of Musicians." *Annals of the New York Academy of Sciences* 930, no. 1 (2001): 281–99. <https://doi.org/10.1111/j.1749-6632.2001.tb05739.x>.
- Schonbrun, Zach. "Searching for the Motor Engram." Essay. In *The Performance Cortex: How Neuroscience Is Redefining Athletic Genius*, 215. New York, NY: Dutton, 2019.
- Seghier, Mohamed L. "Laterality Index in Functional MRI: Methodological Issues." *Magnetic Resonance Imaging* 26, no. 5 (2008): 594–601. <https://doi.org/10.1016/j.mri.2007.10.010>.
- Seidler, Rachael D. "Neural Correlates of Motor Learning, Transfer of Learning, and Learning to Learn." *Exercise and Sport Sciences Reviews* 38, no. 1 (2010): 3–9. <https://doi.org/10.1097/jes.0b013e3181c5cce7>.
- Shmerling, Robert H. "Right Brain/Left Brain, Right?" *Harvard Health*, March 24, 2022. <https://www.health.harvard.edu/blog/right-brainleft-brain-right-2017082512222>.
- Shmuelof, Lior, John W. Krakauer, and Pietro Mazzoni. "How Is a Motor Skill Learned? Change and Invariance at the Levels of Task Success and Trajectory Control." *Journal of Neurophysiology* 108, no. 2 (2012): 578–94. <https://doi.org/10.1152/jn.00856.2011>.
- Vega–Bermudez, Francisco, and Kenneth O. Johnson. "Differences in Spatial Acuity Between Digits." *Neurology* 56, no. 10 (2001): 1389–91. <https://doi.org/10.1212/wnl.56.10.1389>.
- Verdino, Michele, and Sherry Dingman. "Two Measures of Laterality in Handedness: The Edinburgh Handedness Inventory and the Purdue Pegboard Test of Manual Dexterity." *Perceptual and Motor Skills* 86, no. 2 (1998): 476–78. <https://doi.org/10.2466/pms.1998.86.2.476>.
- Voss, Patrice, Maryse E. Thomas, J. Miguel Cisneros-Franco, and Étienne de Villers-Sidani. "Dynamic Brains and the Changing Rules of Neuroplasticity: Implications for Learning and Recovery." *Frontiers in Psychology* 8 (2017). <https://doi.org/10.3389/fpsyg.2017.01657>.
- Wiestler, Tobias, Sheena Waters-Metenier, and Jörn Diedrichsen. "Effector-Independent Motor Sequence Representations Exist in Extrinsic and Intrinsic Reference Frames." *The Journal of Neuroscience* 34, no. 14 (2014): 5054–64. <https://doi.org/10.1523/jneurosci.5363-13.2014>.
- Wolpert, D. PhD., Professor of Neuroscience and member of the Zuckerman Mind Brain and Behavior Institute at Columbia University
- Zopf, Regine, Claire Marie Giabbiconi, Thomas Gruber, and Matthias M Müller. "Attentional Modulation of the Human Somatosensory Evoked Potential in a Trial-by-Trial Spatial Cueing and Sustained Spatial Attention Task Measured with High Density 128 Channels EEG." *Cognitive Brain Research* 20, no. 3 (2004): 491–509. <https://doi.org/10.1016/j.cogbrainres.2004.02.014>.

## END NOTES

- Marc Dicciani. "The Grip Debate: Traditional, Matched, and Countless Variations of Holding and Moving the Sticks." *Percussive Notes*, June 2022, <http://www.dicciani.com/materials/>
- M K Holder, "Why Are More People Right-Handed?" *Scientific American*, November 1, 2001. <https://www.scientificamerican.com/article/why-are-more-people-right/>.
- Robert H. Shmerling, "Right Brain/Left Brain, Right?" *Harvard Health*, March 24, 2022. <https://www.health.harvard.edu/blog/right-brainleft-brain-right-2017082512222>.
- I B Perelle, Lee Ehrman, "Behavior Genetics Association Abstracts." *Behavior Genetics* 24, no. 3 (1994): 217–27. <https://doi.org/10.1007/bf01071565>.
- Michele Verdino, and Sherry Dingman, "Two Measures of Laterality in Handedness: The Edinburgh Handedness Inventory and the Purdue Pegboard Test of Manual Dexterity." *Perceptual and Motor Skills* 86, no. 2 (1998): 476–78. <https://doi.org/10.2466/pms.1998.86.2.476>.
- Mohamed L Seghier, "Laterality Index in Functional MRI: Methodological Issues." *Magnetic Resonance Imaging* 26, no. 5 (2008): 594–601. <https://doi.org/10.1016/j.mri.2007.10.010>.
- Pratik K. Mutha, Kathleen Y. Haaland, and Robert L. Sainburg, "The Effects of Brain Lateralization on Motor Control and Adaptation." *Journal of Motor Behavior* 44, no. 6 (2012): 455–69. <https://doi.org/10.1080/0222895.2012.747482>.
- Dale Purves, George Augustine, David Fitzpatrick, et al., "Mechanoreceptors Specialized to Receive Tactile Information" *Neuroscience*. 2nd edition. Sunderland (MA): Sinauer Associates; 2001. <https://www.ncbi.nlm.nih.gov/books/NBK10895/>
- Zach Schonbrun, "Searching for the Motor Engram." *The Performance Cortex: How Neuroscience Is Redefining Athletic Genius*, 215. New York, NY: Dutton, 2019.
- Ryan M. Peters, Erik Hackeman, and Daniel Goldreich. "Diminutive Digits Discern Delicate Details: Fingertip Size and the Sex Difference in Tactile Spatial Acuity." *The Journal of Neuroscience* 29, no. 50 (2009): 15756–61. <https://doi.org/10.1523/jneurosci.3684-09.2009>.
- Francisco Vega-Bermudez, and Kenneth O. Johnson. "Differences in Spatial Acuity Between Digits." *Neurology* 56, no. 10 (2001): 1389–91. <https://doi.org/10.1212/wnl.56.10.1389>.
- Molly Gebrian, interview, written submitted quote, March 2021
- Patrice Voss, Maryse E. Thomas, J. Miguel Cisneros-Franco, and Étienne de Villers-Sidani. "Dynamic Brains and the Changing Rules of Neuroplasticity: Implications for Learning and Recovery." *Frontiers in Psychology* 8 (2017). <https://doi.org/10.3389/fpsyg.2017.01657>.
- Patrice Négyesi, Péter Négyesi, Tibor Hortobágyi, Sai Sun, Joji Kusuyama, Rita M. Kiss, and Ryoichi Nagatomi. "Handedness Did Not Affect Motor Skill Acquisition by the Dominant Hand or Interlimb Transfer to the Non-Dominant Hand Regardless of Task Complexity Level." *Scientific Reports* 12, no. 1 (2022). <https://doi.org/10.1038/s41598-022-21962-2>.
- Gottfried Schlaug, "The Brain of Musicians." *Annals of the New York Academy of Sciences* 930, no. 1 (2001): 281–99. <https://doi.org/10.1111/j.1749-6632.2001.tb05739.x>.
- Susan Higgins, "Motor Skill Acquisition." *Physical Therapy*, Volume 71, Issue 2, 1 February 1991, Pages 123–139, <https://doi.org/10.1093/ptj/71.2.123>
- Lior Shmuelof, John W. Krakauer, and Pietro Mazzoni, "How Is a Motor Skill Learned? Change and Invariance at the Levels of Task Success and Trajectory Control." *Journal of Neurophysiology* 108, no. 2 (2012): 578–94. <https://doi.org/10.1152/jn.00856.2011>.
- Gottfried Schlaug, "The Brain of Musicians." *Annals of the New York Academy of Sciences* 930, no. 1 (2001): 281–99. <https://doi.org/10.1111/j.1749-6632.2001.tb05739.x>.
- Meghan E., Huber, Nikita Kuznetsov, and Dagmar Sternad, "Persistence of Reduced Neuromotor Noise in Long-Term Motor Skill Learning." *Journal of Neurophysiology* 116, no. 6 (2016): 2922–35. <https://doi.org/10.1152/jn.00263.2016>.
- David M. Huberdeau, John W. Krakauer, and Adrian M. Haith, "Practice Induces a Qualitative Change in the Memory Representation for Visuomotor Learning." *Journal of Neurophysiology* 122, no. 3 (2019): 1050–59. <https://doi.org/10.1152/jn.00830.2018>.
- William C. Bradford, "Reaching the Visual Learner: Teaching Property Through Art" *The Law Teacher* Vol. 11, 2004, <https://ssrn.com/abstract=587201>
- Soyiba Jawed, Ullah Amin Hafeez, Aamir Saeed Malik, and Ibrahima Faye, "Classification of Visual and Non-Visual Learners Using Electroencephalographic Alpha and Gamma Activities." *Frontiers in Behavioral Neuroscience* 13 (2019). <https://doi.org/10.3389/fnbeh.2019.00086>.
- Regine Zopf, Claire Marie Giabbiconi, Thomas Gruber, and Matthias M Müller. "Attentional Modulation of the Human Somatosensory Evoked Potential in a Trial-by-Trial Spatial Cueing and Sustained Spatial Attention Task Measured with High Density 128 Channels EEG." *Cognitive Brain Research* 20, no. 3 (2004): 491–509. <https://doi.org/10.1016/j.cogbrainres.2004.02.014>.
- Lopes, M., and J. Santos-Victor, "Visual Learning by Imitation with Motor Representations." *IEEE Transactions on Systems, Man and Cybernetics, Part B (Cybernetics)* 35, no. 3 (2005): 438–49. <https://doi.org/10.1109/tsmcb.2005.846654>.
- Rebecca Merrett, "A Neuroscience Approach to Innovative Thinking and Problem Solving." *CIO*, July 27, 2015. <https://www2.cio.com.au/article/580509/neuroscience-approach-innovative-thinking-problem-solving/>
- Rachael D Seidler, "Neural Correlates of Motor Learning, Transfer of Learning, and Learning to Learn." *Exercise and Sport Sciences Reviews* 38, no. 1 (2010): 3–9. <https://doi.org/10.1097/jes.0b013e3181c5cce7>.
- Tobias Wiestler, Sheena Waters-Metenier, and Jörn Diedrichsen, "Effector-Independent Motor Sequence Representations Exist in Extrinsic and Intrinsic Reference Frames." *The Journal of Neuroscience* 34, no. 14 (2014): 5054–64. <https://doi.org/10.1523/jneurosci.5363-13.2014>.
- Pratik K. Mutha, Kathleen Y. Haaland, and Robert L. Sainburg, "The Effects of Brain Lateralization on Motor Control and Adaptation." *Journal of Motor Behavior* 44, no. 6

(2012): 455–69. <https://doi.org/10.1080/00222895.2012.747482>.

29. Joaquin A. Anguera, Colleen A. Russell, Douglas C. Noll, and Rachael D. Seidler, “Neural Correlates Associated with Intermanual Transfer of Sensorimotor Adaptation.” *Brain Research* 1185 (2007): 136–51. <https://doi.org/10.1016/j.brainres.2007.09.088>.

## BIBLIOGRAPHY

Altenmüller, Eckart, Stanley Finger, and François Boller. “Music, Neurology, and Neuroscience: Evolution, the Musical Brain, Medical Conditions, and Therapies.” Amsterdam, Netherlands: Elsevier, 2015.

Anderson, John R. “Cognitive Skills and Their Acquisition.” London: Taylor and Francis, 2013. ISBN 9780898590937

Andreasen, Nancy. “Secrets of the Creative Brain.” *The Atlantic*. July/August 2014. <https://www.theatlantic.com/magazine/archive/2014/07/secrets-of-the-creative-brain/372299/>

Brown, Roediger McDaniel. “Make it Stick.” Brown, Roediger, McDaniel, 2014. ISBN 9780674729018

Brown, Steven, and Lawrence M Parsons. “The Neuroscience of Dance.” *Scientific American* vol. 299,1 (2008): 78–83. doi:10.1038/scientificamerican0708-78

Cappuccio, Massimiliano. “When Embodied Cognition and Sport Psychology Team-up.” *Phenomenology and the Cognitive Sciences*. 14, 213–225. 2015. <https://doi.org/10.1007/s11097-015-9415-1>

Carey, Benedict. “How We Learn.” Random House, 2014. 9780812993882. ISBN10: 0812993888

Chisnall, Robert. “A Brief History of Handedness Research.” *Handedness: Theories, Genetics and Psychology* (pp. 45–68). 2012. Nova Science Publishers.

Costandi, Moheb. “Neuroplasticity.” MIT Press. 2016. ISBN: 9780262529334

Dayan, Eran, and Leonardo G Cohen. “Neuroplasticity Subservicing Motor Skill Learning.” *Neuron* vol. 72,3 (2011): 443–54. doi:10.1016/j.neuron.2011.10.008

Davies, Hugh. “Left, Right or Wrong?” *The Musical Times* 120, no. 1633 (1979): 197. <https://doi.org/10.2307/961744>.

de Boer, Bettenco J., C. (Lieke) Peper, and Peter J. Beek. “Development of Temporal and Spatial Bimanual Coordination during Childhood.” *Motor Control* 16, no. 4 (2012): 537–59. <https://doi.org/10.1123/mcj.16.4.537>.

de Kleine, Elian, and Verwey, Willem B., “Effects of Hand Used and Hand Position in the Discrete Sequence Production Task.” *PsycEXTRA Dataset*, 2008. <https://doi.org/10.1037/e527312012-263>.

Diedrichsen, J., (Diedrichsen’s Lab) “Interaction of Multiple Future Movement Plans in Sequential Reaching.” May 2023. DOI:10.111/2023.05.24.542099

Diedrichsen, J., Shadmehr, R., & Ivry, R. B. (2010). “The Coordination of Movement: Optimal Feedback Control and Beyond.” *Trends in Cognitive Sciences*, 14(1), 31–39. <https://doi.org/10.1016/j.tics.2009.11.004>

Doidge, Norman. “The Brain That Changes Itself: Stories of Personal Triumph from the Frontiers of Brain Science.” Strawberry Hills, NSW: ReadHowYouWant, 2017. ISBN: 978-0143113102

Dunham, James, and Todd Davenport. “Handedness Theories, Genetics and Psychology.” Hauppauge, NY: Nova Science Publishers, 2012.

Ericsson, Anders, and Robert Pool. *Peak: Secrets from the New Science of Expertise*. Boston: Mariner Books/Houghton Mifflin Harcourt, 2017.

Fitton, Isabel, Christopher Clarke, Jeremy Dalton, Michael J Proulx, and Christof Lutteroth. “Dancing with the Avatars: Minimal Avatar Customisation Enhances Learning in a Psychomotor Task.” *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*, 2023. <https://doi.org/10.1145/3544548.3580944>.

Fujii Shinya, Masaya Hirashima, Kazutoshi Kudo, Tatsuyuki Ohtsuki, Yoshihiko Nakamura, and Shingo Oda. “Synchronization Error of Drum Kit Playing with a Metronome at Different Tempi by Professional Drummers.” *Music Perception* 28, no. 5 (2011): 491–503. <https://doi.org/10.1525/mp.2011.28.5.491>.

Geake, John. “Neuromythologies in Education.” *Educational Research* 50, no. 2 (2008): 123–33. <https://doi.org/10.1080/00131880802082518>.

Gainotti, Guido. “The Influence of Handedness on Hemispheric Representation of Tools: A Survey.” *Brain and Cognition* 94 (2015): 10–16. <https://doi.org/10.1016/j.bandc.2014.12.005>.

Gould, Elizabeth. “How Does Experience Influence the Brain?” (video) <https://www.youtube.com/watch?v=N-txqhxv01Q>

Gould, Elizabeth, and Laham, Blake, “Plasticity in the Adult Brain.” *Encyclopedia of Behavioral Neuroscience: Second Edition* (2021, Vol. 1-3, pp. 65-70). Elsevier. <https://doi.org/10.1016/B978-0-12-819641-0.00015-3>

Grahn, Jessica A. “Neural Mechanisms of Rhythm Perception: Current Findings and Future Perspectives.” *Topics in Cognitive Science* 4, no. 4 (2012): 585–606. <https://doi.org/10.1111/j.1756-8765.2012.01213.x>.

Habermeyer, Benedikt, Marcus Herdener, Fabrizio Esposito, Caroline C. Hilti, Markus Klarhöfer, Francesco di Salle, Stephan Wetzel, Klaus Scheffler, Katja Cattapan-Ludewig, and Erich Seifritz. “Neural Correlates of Preattentive Processing of Pattern Deviance in Professional Musicians.” *Human Brain Mapping* 30, no. 11 (2009): 3736–47. <https://doi.org/10.1002/hbm.20802>.

Herholz, Sibylle C., and Robert J. Zatorre. “Musical Training as a Framework for Brain Plasticity: Behavior, Function, and Structure.” *Neuron* 76, no. 3 (2012): 486–502. <https://doi.org/10.1016/j.neuron.2012.10.011>.

Hossner, E-J, Schieb, F., Göhner, U. “A Functional Approach to Movement Analysis and Error Identification in Sports and Physical Education.” *Frontiers in Psychology*. Sec. Movement Science Volume 6 - 2015 <https://doi.org/10.3389/fpsyg.2015.01339>

Huberdeau, David M., John W. Krakauer, and Adrian M. Haith. “Practice Induces a Qualitative Change in the Memory Representation for Visuomotor Learning.” *Journal of Neurophysiology* 122, no. 3 (2019): 1050–59. <https://doi.org/10.1152/jn.00830.2018>.

Huberman, A., podcasts and YouTube interviews

Jones, L. “Procedural and Declarative Memory Practice - A Guitarist’s Perspective” <https://www.linkedin.com/pulse/procedur->

- al-declarative-memory-practice-guitarists-lee-jones/
- Kaufman, Scott Barry et al. "Implicit Learning as an Ability." *Cognition* vol. 116,3 (2010): 321- 40. doi:10.1016/j.cognition.2010.05.011
- Kilteni, Konstantina et al. "Drumming In Immersive Virtual Reality: The Body Shapes the Way We Play." *IEEE transactions on visualization and computer graphics* vol. 19,4 (2013): 597-605. doi:10.1109/TVCG.2013.29
- Kopiez, R., et al. "No Disadvantage for Left-handed Musicians: The Relationship Between Handedness, Perceived Constraints and Performance-related Skills in String Players and Pianists." *Psychology of Music*, 40(3), 357-384. https://doi.org/10.1177/0305735610394708
- Kornysheva, Katja, and Ricarda I. Schubotz. "Impairment of Auditory-Motor Timing and Compensatory Reorganization after Ventral Premotor Cortex Stimulation." *PLoS ONE* 6, no. 6 (2011): e21421. doi:10.1371/JOURNAL.PONE.0021421.
- Kotz, S A, et al. "The Evolution of Rhythm Processing." *Trends in Cognitive Sciences* vol. 22,10 (2018): 896-910. doi:10.1016/j.tics.2018.08.002
- Krakauer, J., and Stanley, J. "Motor Skill Depends on Knowledge of Facts." *Frontiers in Human Neuroscience*, August 2013,7 (503):503. 10.3389/fnhum.2013.00503
- Krakauer, J. "The Intelligence of Movement" (video) https://www.youtube.com/watch?v=Zh6F44grke0
- "Laterality: Asymmetries of Body, Brain and Cognition." Volume 9, 2004, Author Index. *Laterality: Asymmetries of Body, Brain and Cognition* 9, no. 4 (2004): 1-2. https://doi.org/10.1080/714464350.
- Lems, Kristin. "Music, Our Human Superpower." *Academia Letters*, 2021. doi:10.20935/AL304.
- Lohr, J., "Can Visualizing Your Body Doing Something Help You Learn to Do It Better?" *Scientific American*, May 2015. https://www.scientificamerican.com/article/can-visualizing-your-body-doing-something-help-you-learn-to-do-it-better/
- MacNamara, Á., Holmes, P., & Collins, D. "Negotiating Transitions in Musical Development: The Role of Psychological Characteristics of Developing Excellence." *Psychology of Music*, 36(3), 335-352. https://doi.org/10.1177/0305735607086041
- Mastin, L. "Right, Left, Right, Wrong: An Investigation of Handedness" https://www.rightleftwrong.com/
- McGuiness, Andy. "Groove Microtiming Deviations as Phase Shifts." 9th International Conference on Music Perception and ..., 2006.
- Metcalfe, C. D., Irvine, T. A., Sims, J. L., Wang, Y. L., Su, A. W., & Norris, D. O. (2014). "Complex Hand Dexterity: A Review of Biomechanical Methods for Measuring Musical Performance." *Frontiers in Psychology*, 5, 414. https://doi.org/10.3389/fpsyg.2014.00414
- Morrow, M., "Music as Medicine and The Science of How Our Bodies Need Rhythm" https://www.youtube.com/watch?v=ko-evFKL7pf0
- Muscolino, J., "Body Mechanics" https://learn-muscles.com/product/body-mechanics-for-manual-therapy-neck-and-back-treatment/
- Mutha, P. K., Haaland, K. Y., & Sainburg, R. L. "The Effects of Brain Lateralization on Motor Control and Adaptation." *Journal of Motor Behavior*, 44(6), 455-469. 2012https://doi.org/10.1080/00222895.2012.747482
- Norton, Andrea., et al. "Are There Pre-existing Neural, Cognitive, or Motoric Markers for Musical Ability?" *Brain and Cognition* vol. 59,2 (2005): 124-34. doi:10.1016/j.bandc.2005.05.009
- O'Connor, Eddie. "The Psychology of Performance." Chantilly, VA: Teaching Company, 2017. ASIN: B0758MHNS6
- Papadatou-Pastou M. (2018). "Handedness and Cognitive Ability: Using Meta-analysis to Make Sense of the Data." *Progress in Brain Research*, 238, 179-206. https://doi.org/10.1016/bs.pbr.2018.06.008
- Pasupathi, M., "How We Learn." Random House, 2014. ISBN: 978-0812984293
- Patel, A. D. "Music, Language, and the Brain." Oxford University Press, 2008. ISBN: 9780195123753
- Pellicano, A., et al. "Real-life Motor Training Modifies Spatial Performance: The Advantage of Being Drummers." *The American Journal of Psychology* vol. 123,2 (2010): 169-79. doi:10.5406/amerjpsyc.123.2.0169
- Phillips-Silver, J., & Trainor, L. J. "Vestibular Influence on Auditory Metrical Interpretation." *Brain and cognition*. 2008. 67(1), 94-102. https://doi.org/10.1016/j.bandc.2007.11.007
- Polk, T., "The Learning Brain." *The Great Courses*, 2018 Rocchesso, Davide. "Beat Fusion in the Brain of a Drummer: Expertise Alters Audiovisual Brain Activation." *Academia.edu*, October 10, 2015. https://www.academia.edu/16621102/Beat\_Fusion\_in\_the\_Brain\_of\_a\_Drummer\_Expertise\_alters\_audiovisual\_brain\_activation.
- Pontillo, T. "Spatial Ability and Handedness as Potential Predictors of Space Teleoperation Performance." PhD diss., Massachusetts Institute of Technology, 2010.
- Popp, N., Hernandez-Castillo, C., Gribble, P., and Diedrichsen, J. "The Role of Feedback in the Production of Skilled Finger Sequences." *Journal of Neurophysiology* 127, no. 4 (2022): 829-839.
- Popp, N.J., Yokoi, A., Gribble, P.L. and Diedrichsen, J., 2020. "The Effect of Instruction on Motor Skill Learning." *Journal of Neurophysiology*, 124(5), pp.1449-1457.
- Prieur, J., Barbu, S. and Blois-Heulin, C., 2017. "Assessment and Analysis of Human Laterality for Manipulation and Communication Using the Rennes Laterality Questionnaire." *Royal Society Open Science*, 4(8), p.170035.
- Ratey, John. "A User's Guide to the Brain." Abacus, 2009. ISBN: 9780679453093
- Rozen, S. "Left Brain vs. Right Brain: Fact or Fiction?" *Atlassian Intelligence*, 2023 https://www.atlassian.com/blog/productivity/left-brain-vs-right-brain
- Sainburg, S., and Schaefer, S. "Interlimb Differences in Control of Movement Extent." *Journal of Neurophysiology* 92, no. 3 (2004): 1374-1383.
- Schmidt, R., Lee, T., Winstein, C., Wulf, G., and Zelaznik, H. "Motor Control and Learning: A Behavioral Emphasis." *Human Kinetics*, 2018.
- Schmidt, R., and Wrisberg, C. "Motor Learning and Performance: A Situation-based Learning Approach." *Human kinetics*, 2008.
- Schonbrun, Z. "The Performance Cortex: How Neuroscience Is Redefining Athletic Genius." New York, NY: Dutton, 2019. ISBN: 9781101986332
- Shmerling, Robert H. "Right Brain/Left Brain,

- Right?" Harvard Health, March 24, 2022. <https://www.health.harvard.edu/blog/right-brainleft-brain-right-2017082512222>.
- Steig, P., "How Gabby Giffords Used Music to Regain Her Speech." <https://www.psychologytoday.com/us/blog/is-your-brain/202101/how-gabby-giffords-used-music-regain-her-speech>.
- Stewart, L. "Do Musicians Have Different Brains?" *Clinical Medicine* 8, no. 3 (2008): 304–8. <https://doi.org/10.7861/clinmedicine.8-3-304>.
- Stockinger, C., Focke, A., and Stein, T. "Catch Trials in Force Field Learning Influence Adaptation and Consolidation of Human Motor Memory." *Frontiers in Human Neuroscience* 8 (2014). <https://doi.org/10.3389/fnhum.2014.00231>.
- Sussman, G. J., "A Computational Model of Skill Acquisition." MIT, 1973. ISBN: 978-0444001634
- Swinnen, S., and Wenderoth, N. "Two Hands, One Brain: Cognitive Neuroscience of Bimanual Skill." *Trends in Cognitive Sciences* 8, no. 1 (2004): 18–25. <https://doi.org/10.1016/j.tics.2003.10.017>.
- Taylor and Francis Group. "Laterality: Asymmetries of Body, Brain and Cognition." ISSN: 1357650x
- Thaut, M. "Rhythm, Music, and the Brain: Scientific Foundations and Clinical Applications." New York: Routledge, 2008. ISBN: 978-0415964753
- Tierney, A., et al. "Individual Differences in Rhythm Skills: Links with Neural Consistency and Linguistic Ability." *Journal of Cognitive Neuroscience* 29, no. 5 (2017): 855–68. [https://doi.org/10.1162/jocn\\_a\\_01092](https://doi.org/10.1162/jocn_a_01092).
- Trost, W.J., Labbé, C., and Grandjean, D. "Corrigendum to 'Rhythmic Entrainment as a Musical Affect Induction Mechanism'[*Neuropsychologia* 96 (2017) 96–110]." *Neuropsychologia* 136 (2020): 107235. <https://doi.org/10.1016/j.neuropsychologia.2019.107235>.
- Viskontas, I. "Brain Myths Exploded: Lessons From Neuroscience." *The Great Courses*, 2017. ISBN: 978-1629973715
- Vuoksima, E., Koskenvuo, M., Rose, R. J., & Kaprio, J. "Origins of Handedness: A Nationwide Study of 30,161 Adults." *Neuropsychologia*, 47(5), 1294–1301. 2009. <https://doi.org/10.1016/j.neuropsychologia.2009.01.007>
- Wesley, A., "An Analysis for Snare Drumming Technique Via Motion Capture." April 2022 <https://doi.10.13140/RG.2.2.24690.79045>
- Williams, S. "Non-Righthandedness." *Academia Letters*, 2022. Article 4777. <https://doi.org/10.20935/AL4777>
- Yates, C., Justus, T., Atalay, N., Mert, N., Trehub, S., "Effects of Musical Training and Culture on Meter Perception." *Psychology of Music* 45, no. 2 (2016): 231–45. <https://doi.org/10.1177/0305735616657407>.
- Zagorski-Thomas, Simon. "Real and Unreal Performances: The Interaction of Recording Technology and Rock Drum Kit Performance" *Musical Rhythm in the Age of Digital Reproduction*, 2016, 195–212. <https://doi.org/10.4324/9781315596983-12>. ●

# Comparison of Online and in Person Group Drumming as a Medium to Support Social and Emotional Learning of University Students

by K Michelle Lewis

## Abstract

The purpose of this study was to investigate the effects of group-based drumming for both online and in vivo on a person's mood. Thirty-eight college music majors participated in the Remo HealthRHYTHMS Recreational Music Making (RMM) Protocol and received both a pretest and posttest using the Brief Mood Introspection Scale. The students were grouped using convenience sampling of two intact classes for the groups in vivo and online. A significant statistical difference was found between pretests and posttests in both groups resulting in enhanced mood states after receiving the group drumming intervention. However, there were no significant statistical differences found between post-tests for the groups.

**W**ith growing rates of anxiety, stress, and community isolation caused by the coronavirus pandemic, individuals are seeking ways to connect that are engaging, safe, and emotionally satisfying. Mental health concerns are rising for university students in the United States and abroad. According to (Lipsen et al., 2022), the mental health of university students has worsened between 2013 to 2021.<sup>1</sup> Wang et al. (2020) noted the most diagnosed mental disorders in college students were stress, anxiety, and depression.<sup>2</sup>

Currently, group drumming is being used as a tool to facilitate well-being in a variety of populations including, but not limited to older adults,<sup>3</sup> mental health service users,<sup>4</sup> trauma practitioners, coun-

selors, at-risk students,<sup>5</sup> college students<sup>6,7</sup> and children.<sup>8</sup>

Substantial research has been accumulated demonstrating the health and wellness benefits of drumming.<sup>4,5,6,7,8</sup> These benefits include but are not limited to stress reduction,<sup>9</sup> communication,<sup>10</sup> boosted immune system<sup>11</sup> creative expression,<sup>12</sup> and improved mood states.<sup>12</sup> Roy et al. (2020) found that mood and demeanor positively increased in older adults from Hong Kong with and without dementia in a single African drumming session.<sup>3</sup> The instrumentation for the African drumming sessions included djembes and dununs. The facilitator taught African musical techniques such as polyrhythms, call and response, improvisation, singing, and movement. Drumming uplifts people when the mood is dark, when commu-

nications break down when people seek common ground, and when people need one another the most.<sup>10</sup> "Music, rhythm, and dance enhance self-esteem, ensure a healthy workout, stimulate minds, boost creative potential, make us laugh, and connect us on many levels."<sup>10</sup>

Bittman et al. (2003) found that recreational music-making (RMM) using the Remo HealthRHYTHMS RMM group drumming protocol improved mood states and significantly reduced burnout in long-term care workers.<sup>12</sup> The Remo HealthRHYTHMS RMM protocol is an evidence-based group drumming protocol consisting of ten steps led by a trained facilitator. Participants in a study by Ben-simon & Amir (2007) reported that group drumming at an extremely loud level during improvisations provided a space

to channel rage that was followed with feelings of relief, satisfaction, and empowerment.<sup>13</sup> Koyama et al. (2009) discovered that recreational music-making using the RMM protocol improved the mood of both young and aging Japanese men and women.<sup>14</sup>

## SOCIAL AND EMOTIONAL LEARNING

Social and emotional learning (SEL) in education has been around for at least two decades and can be traced back to social learning theory<sup>15</sup> and emotional intelligence.<sup>16,17,18</sup> Social and emotional learning is defined as the process by which adults and children manage and recognize emotions, develop healthy identities, set and achieve goals, feel and show empathy towards others, maintain and establish supportive relationships, and make responsible and caring decisions.<sup>19,20</sup> Social learning theory illuminates the importance of observing and modeling the social aspects of others as a path to influencing one's behavior.<sup>15</sup> Social learning theory connects to social-emotional learning because it is about building one's self-efficacy, which is the confidence in one's abilities.<sup>21</sup> Emotional intelligence was first addressed in the mid-1980s to 1990s with the publication of Gardner's book *Frames of Mind*<sup>22</sup> and Goleman's book, *Emotional Intelligence*.<sup>17</sup> Gardner (1983) proposed that individuals have seven types of intelligence, including logical-mathematical, linguistic, musical, spatial, bodily-kinesthetic, interpersonal, and intrapersonal.<sup>22</sup> Of these multiple intelligences, interpersonal and intrapersonal connect with emotional intelligence. Interpersonal intelligence builds the capacity to understand others' desires, moods, or emotions, and intrapersonal builds the capacity to be self-aware of emotions, values, and beliefs.<sup>16</sup>

For the past two decades, researchers have studied the social and emotional benefits of group drumming for various populations such as low-income children,<sup>23</sup> preschool children,<sup>24</sup> adolescents,<sup>25</sup> Aboriginal women,<sup>26</sup> Native Americans,<sup>27</sup> and aging adults.<sup>3</sup> There have also been

various group drumming interventions that target the social and emotional well-being of participants.<sup>28,29,30,24</sup>

Drumming is frequently recommended as a complementary intervention in health and human services<sup>31</sup> and has been found to promote social<sup>29</sup> and emotional health.<sup>4</sup> The following group drumming interventions have shown positive improvements in the social and emotional well-being of the participants researched. The Remo HealthRHYTHMS RMM protocol, is an evidence-based group empowerment drumming program that consists of ten steps that participants are guided through by a trained facilitator to explore personal expression and communication.<sup>32</sup> Drums Alive is a research-based program that utilizes a multi-disciplinary approach to wellness including dance, music, drumming, mindfulness, fitness, physical education, relaxation, and inclusion strategies.<sup>28</sup> The Holyoake DRUM-BEAT program was developed to provide a safe container to release emotion as well as connection and belonging to the community in response to isolation.<sup>29</sup> Faulkner (2017) connects his Rhythm to Recovery model of rhythmic music and movement to social and emotional learning through mindfulness and cognitive reflection.<sup>30</sup> His drumming exercises use rhythm as a metaphor for things that we experience in our day-to-day lives. The use of the drum to express emotions in the Rhythm to Recovery model is utilized in a playful way where individuals play their emotions on the drum and the other participants play the opposite emotion back to them. Ho et al. (2011) used Beat the Odds, a research-based school counselor-led group drumming program for low-income Latino youth.<sup>24</sup> Researchers in this study incorporated drumming activities and counseling focused on team building, attention, awareness of self and others, stress and anger management, and leadership skills. From these studies, researchers have demonstrated that group drumming is an effective tool for enhancing the social and emotional well-being of participants.

The literature represented serves the purpose of introducing two primary concepts—the connections of Social and Emotional Learning (SEL) to group drumming and the facilitation of online recreational music-making. In January 2021, music therapist Christine Stevens offered a Remo HealthRHYTHMS ONLINE Protocol Professional Development training for HealthRHYTHMS facilitators. The training consisted of an online version of the original ten steps of the protocol modified for online participants. There were many similarities between both the online and *in vivo* HealthRHYTHMS protocol.<sup>32</sup> The similarities were the teaching of the ten steps of the protocol and healing rhythms to facilitate in a variety of groups ranging from schools, hospitals, and recovery centers. The differences between the *in vivo* and online protocol are the technical considerations, such as the online studio, and virtual facilitation on the Zoom conferencing platform.

The application of this study speaks to the effectiveness of online learning and therapeutic environments for music educators, drum circle facilitators, home school populations, businesses, and music therapists. Before the Covid-19 pandemic, music learning through social media platforms showed promising results for facilitation in remote places.<sup>33</sup> During the Covid-19 pandemic, researchers showed promising results enriching synchronous music lessons with asynchronous music lessons.<sup>34</sup> Other advantages of remote learning spaces are that some students feel safer in an online environment than in a traditional classroom.<sup>35</sup> A larger portion of the population can be reached and the effectiveness of recreational music-making interventions can be explored.<sup>36</sup> The purpose of this study was to investigate the effects of both online and *in vivo group-based drumming on a person's mood*. The researchers chose the Remo HealthRHYTHMS RMM protocol because of its credibility and its many applications. The applications include but are not limited to music therapy settings, hospitals, schools, aging centers, and



more. The main goal of the study was to better understand the effects on mood of using the online Remo HealthRHYTHMS Recreational Music Making (RMM) Protocol. A secondary goal was to gain insight into how each participant's emotions varied when experiencing the protocol online and *in vivo*.

## METHOD

Descriptive statistics for both the online and *in vivo* participants ( $N = 38$ ) are seen in Table 1. There were ( $n = 14$ ) music education majors, ( $n = 14$ ) music therapist majors, ( $n = 4$ ) music education/performance (double majors), and ( $n = 1$ ) music performance major enrolled in a large

university in the Midwest United States. Five students did not respond with their descriptive information. Two intact classes received the intervention (RMM protocol) with one online ( $n = 20$ ) and the other *in vivo* ( $n = 18$ ). The ages of the participants ranged from eighteen to forty-three years old with a mean age of twenty-one. The genders represented were male ( $n = 14$ ), female ( $n = 17$ ), non-binary ( $n = 2$ ), and no response ( $n = 5$ ).

**TABLE 1**

*Descriptive Statistics for the Pretest online and in vivo*

Year in School	Gender	Age Range	Major
Freshman 18	Male 14	18-43	Music Education 14
Sophomore 1	Female 17		Music Ed/Performance 4
Junior 12	Non-Binary 2		Music Performance 1
Senior 2	No response 5		Music Therapy 14
No response 5			No response 5

## PROCEDURE

In this study, I used the Brief Mood Introspection Scale (BMIS), an open-source assessment of 16 moods used in psychology research to measure the participant's mood before and after each online and *in vivo* group drumming session.<sup>37</sup> (Figure 1). This scale in its original form con-

**FIGURE 1**

*BMIS items and scales they fall under*

The Four BMIS Factor-Based Subscales: Two Pairs of Scales								
The 16 BMIS Mood Adj.	Pair 1: Unrotated Two-Factor Solution				Pair 2: Varimax-Rotated Two-Factor Solution			
	Pleasant - Unpleasant		Arousal - Calm		Positive - Tired		Negative - Relaxed	
	Positively-Worded Items	Negatively-Worded Items	Positively-Worded Items	Negatively-Worded Items	Positively-Worded Items	Negatively-Worded Items	Positively-Worded Items	Negatively-Worded Items
Lively	X		X		X			
Happy	X							
Sad		X	X				X	
Tired		X		X		X		
Caring	X		X		X			
Content	X							
Gloomy		X	X				X	
Jittery		X	X				X	
Drowsy		X				X		
Grouchy		X						
Peppy	X		X		X			
Nervous		X	X				X	
Calm	X			X				X
Loving	X		X		X			
Fed up		X	X				X	
Active	X		X		X			
Totals								
PW Items	8		10		5		5	
NW Items		8		2		2		1
Scale Total	16		12		7		6	

tains two sets of scales: one that measures Pleasantness-Unpleasantness and one that measures Arousal-Calm dimensions. The other way it can be used is to measure positive and negative affect. In this study, I implemented the recommended Pleasantness-Unpleasantness scale using a 4-point

Likert-like scale with reverse scoring suggested by Cavallero et al., 2019.<sup>38</sup> This instrument appears to be widely used<sup>39,40</sup> and represents a reliable mood assessment according to (Cavallero et al., 2019).<sup>38</sup>

Both the online students ( $n = 20$ ) and in vivo students ( $n = 18$ ) were given the

(BMIS) as a pre-test using a Google form (Figure 2). Then, they were provided with the Recreational Music Making (RMM) protocol (Figure 3). The in vivo students were also given the BMIS pretest using paper and pencil, then were provided the RMM protocol followed by the paper and pencil post-test.

The researcher in this study was also the instructor for both groups and has been trained in facilitating the Remo HealthRHYTHMS protocol. I used the Remo HealthRHYTHMS ten step protocol as the independent variable (Figure 3). The ten-step protocol consisted of introducing the program, wellness exercise, breaking the ice, the ABCs of drumming, rhythmic naming, entrainment building (synchronized and coordination of different rhythms), inspirational beats, guided imagery drumming, wellness exercise, and the finale.<sup>35</sup> The facilitation of the pre-test, recreational music-making protocol, and post-test lasted approximately 50 minutes.

For the introduction, I established credibility and trust with participants by reviewing the health and wellness benefits of group drumming and encouraged participants to experience equality, self-love, and to have an open mind. To begin the protocol, I started with a wellness exercise that lasted approximately three minutes. I played recorded hand

## FIGURE 2

### Pre-test and Post-test using Meddis responses of the BMIS mood assessment

Choose the response on the scale below that indicates how well each adjective or phrase describes your present mood.

	(definitely do not feel)	(do not feel)	(slightly feel)	(definitely feel)
Lively	XX	X	V	VV
Happy	XX	X	V	VV
Sad	XX	X	V	VV
Tired	XX	X	V	VV
Caring	XX	X	V	VV
Content	XX	X	V	VV
Gloomy	XX	X	V	VV
Jittery	XX	X	V	VV
Drowsy	XX	X	V	VV
Grouchy	XX	X	V	VV
Peppy	XX	X	V	VV
Nervous	XX	X	V	VV
Calm	XX	X	V	VV
Loving	XX	X	V	VV
Fed up	XX	X	V	VV
Active	XX	X	V	VV

## FIGURE 3

### Recreational music making group drumming protocol

Building Blocks	Time	Description
1. Introducing the program	1 min.	Create an open environment, establish credibility
2. Wellness Exercise	3 min.	Breathwork, stretches, and relaxation
3. Breaking the ice	5-8 min.	Steady beat game calling out different beats to play on
4. ABC's of drumming	5 min.	Introduction to drumming basics
5. Rhythmic naming	5 min.	Participants play their names on their instruments and everyone echoes
6. Entrainment building	10 min.	Facilitator leads participants in echoing rhythm patterns and one by one individuals layer improvised rhythms on top of each other to produce a collective rhythm
7. Inspirational beats	8 min.	Drumming responses for individuals facing challenges
8. Guided Imagery Drumming	5 min.	Guided meditation imagining travel to a happy place in nature while drumming
9. Wellness Exercise	2 min.	Breathwork, stretches, and relaxation noting any changes felt
10. The finale	2 min.	Reflection and expression time

pan music as participants followed me in touching their hearts and stomachs for three calming breaths. Participants were invited to close their eyes or lower their gaze as they inhaled peace and exhaled love. In addition to breathing, participants did light stretches of their wrists, forearms, necks, and side bodies (muscles along the side of the body from the lower back to the shoulders). For the breaking the ice exercise, we played a steady beat game calling out beats one, two, three, and four to play on as designated by the facilitator with recorded music online and without music *in vivo*. This exercise lasted approximately three minutes and included responding to dynamic changes from soft to loud to soft. During the ABCs of drumming, participants learned how and where to strike the drums. The drums used in this study consisted of Remo Fiberskyn 16-inch frame drums and various-sized Remo Tubanos supplied by the students and the university. For the frame drums, students were instructed to hold the drum in their non-dominant hand and strike it with their dominant hand. The students learned three tones on the frame drum called the doum, tek, and kah. For the tubanos, students used both hands to play the drums. The three tones taught were the bass, open tone, and slap. The rhythmic naming exercise consisted of

each person playing the rhythm of their name one at a time, while participants echoed back to one another. In the entrainment-building exercise, participants listened to the rhythm of the facilitator, kept a steady beat in their body, and layered their unique rhythm into the group one person at a time. This exercise lasted approximately five minutes. In the inspirational beats segment of the protocol, I asked the participants to play the answer to the following question on their drums. "How has isolation from Covid-19 made you feel this past year?" The students responded to the question on their drums. One student demonstrated his feeling on his drum to the class and in return, the class echoed. Upon echoing his response, I asked the students to respond with how they felt playing his rhythmic answer. I asked the students if anyone else had felt this way, and many students responded positively to the question. The person who shared their answer on the drum then responded with how they were feeling.

The next step in the protocol is called guided imagery drumming. In guided imagery drumming, the participants are invited to take a deep breath and close their eyes. I gave participants an option to play along softly or sit and listen to the guided meditation. As I guided participants on a

journey into nature, the drumming played in unison throughout, built to an improvised section, and came to a soft closing as the journey came to an end. Upon closing this segment of the protocol, everyone was invited to take three calming breaths as they did at the beginning and put themselves in a reflective mindset. Students were asked to complete the post-test and provide a one-word response as to how they felt at that moment after completing the HealthRHYTHMS protocol.

## DATA ANALYSIS

Of the sixteen mood adjectives, eight positive mood adjectives and eight negative mood adjectives were assessed using the Brief Mood Introspection Scale (BMIS)<sup>37</sup> Participants in both online and *in vivo* groups were given a pre-test and post-test using the BMIS. Data were collected through Google Forms for the online participants and by a paper and pencil assessment for *in vivo* participants. The data were transferred into a Microsoft Excel spreadsheet and were scored using the recommended reverse-scoring method (Figure 4).<sup>38</sup> The sixteen mood adjectives, known as Meddis responses were converted to numerical values.<sup>42</sup> Then, the reverse scores were input for responses containing drowsy, fed up, gloomy, grouchy, jittery, nervous, sad, and tired according to the appropriate usage of the instrument. Upon completion of the reverse scoring method, I added all sixteen number responses per participant to obtain the Pleasantness-Unpleasantness scale score for each participant. The sum is the total score on the Pleasantness-Unpleasantness Scale. Figure 4 displays the range of the minimum and maximum response values for the BMIS Pleasantness-Unpleasantness Scale. Then, data were analyzed using IBM SPSS Statistics (Version 26) predictive analytics software.

According to (Cavallero, R. et al., 2019), the BMIS Pleasantness/Unpleasantness (PU) has a high-reliability coefficient ( $r > .80$ ) as compared to the Arousal and Calm mood scale (AC).<sup>38</sup> The PU mood scale was found to be a valid and reliable assess-

**FIGURE 4**  
*Reverse Scoring Example*

Score the Pleasantness-Unpleasantness scale using these steps:

<p>1. Convert the Meddis response scale (XX, X, V, VV) to numbers:  XX = 1  X = 2  V = 3  VV = 4</p>
<p>2. Next, reverse score the responses for: Drowsy, Fed up, Gloomy, Grouchy, Jittery, Nervous, Sad, and Tired.  That is, recode, such that:  XX = 4  X = 3  V = 2  VV = 1</p>
<p>3. Now, add up the scores for all 16 items to obtain the scale score. The sum is the total score on the Pleasantness-Unpleasantness scale.</p>

ment tool to measure current mood and is recommended for future use (Cavallaro, R. et al., 2019).<sup>38</sup> The data were analyzed for descriptive statistics and four possible t-tests: pre-tests and post-tests for both the *in vivo* and online groups. A test for differences between the two groups using post-test data, and if no statistically significant difference (SSD) is found between the two groups then they will be combined to look at the pre-tests and post-tests for all participants.

## RESULTS

The mean values of the pre-post-intervention data and mood pleasantness-unpleasantness scale scores can be seen in Table 2. Pre-test and post-test data suggest an increase in mood pleasantness in both online and *in vivo* groups; the post-test results for online and *in vivo* showed no significant statistical differences in mood affect between the groups. In statistical terms, the lack of significant statistical differences means that the finding can reliably exclude a worthwhile difference. Therefore, I combined pre-test and post-test scores as shown in Table 3. The combined *in-vivo* and online pre-test and post-test results showed a significant statistical difference. A significant statistical

difference means the result is not attributed by chance.

The first analysis (Table 2) was the dependent pre-test ( $n = 18$ ) and post-test ( $n = 18$ ) *in vivo*. The results from the *in vivo* pre-test ( $M = 41.0, SD = 7.2$ ) and *in vivo* post-test ( $M = 47.2, SD = 6.3$ ) mood assessment indicate enhanced pleasant-unpleasantness scores resulting in significant differences  $t(17) = 4.0, p < .001$ . The alpha level was set at .05 for all statistical tests demonstrating that there were significant statistical differences between the pre-tests and post-tests of students who were *in vivo*.

The second set analyzed (Table 2) was the dependent pre-test ( $n = 20$ ) and post-tests ( $n = 20$ ) for the online group. The results from the online pre-test ( $M = 46.4, SD = 6.9$ ) and online post-test ( $M = 51.3, SD = 7.0$ ) mood assessment indicate enhanced pleasant-unpleasantness scores (enhanced mood states) also resulted in differences within the group  $t(38) = 3.9, p < .030$ . The alpha level, also known as the significance level, is used in hypothesis tests. Usually, these tests are set at .05 to avoid making a type I or type II error. Therefore, the alpha level was set at .05 demonstrating that there were significant statistical differences between the pre-

tests and post-tests in the online drumming group resulting in enhanced mood states after the participants received the group drumming intervention.

In the third set analyzed (Table 2), the independent post data and mood pleasantness-unpleasantness scale scores are given with results in Table 3. The results from the *in vivo* post-test ( $M = 47.2, SD = 6.3$ ) and online post-test ( $M = 51.3, SD = 7.0$ ) mood assessment indicate enhanced mood in the online group, resulting in no differences between the groups  $t(36) = 1.9, p > .07$ . This indicates improved mood states from both the online and *in vivo* groups, resulting in further analysis. Accordingly, I combined the online and *in vivo* pre-test scores and post-test scores for both groups.

The fourth set analyzed (Table 3) the combined online and *in vivo* pre-test ( $M = 43.8, SD = 7.5$ ) and post-test ( $M = 49.4, SD = 6.9$ ) mood assessment for ( $N = 38$ ). The results indicate that there was an improvement in mood-pleasantness,  $t(37) = 5.0, p < .000$ . There were significant statistical differences between the pre-tests and post-tests for the combined online and *in vivo* groups, resulting in enhanced mood states overall.

## DISCUSSION

Although this study used a different mood assessment scale than Koyama, (2019) and Mungus & Silverman (2014), it is consistent with improved mood states.<sup>14,7</sup> The present study found an improvement in mood states for university students using the Remo HealthRHYTHMS Recreational Music Making (RMM) Protocol and Brief Mood Introspection Scale for online and *in vivo* groups. What many thought impersonal at first appeared to be effective both in person and in an online setting. The results of the independent post-tests found no significant statistical differences between the online and *in vivo* groups. This illustrates that mood pleasantness-unpleasantness scores were similar between the online and *in vivo* groups. This brings validity to the effectiveness of the online RMM protocol and

**TABLE 2**  
*Dependent Pre-test and Post-test and Independent Post-test*

	Pre-test			Post-test			
	N	M	SD	N	M	SD	Significance Level
<i>in vivo</i> (dependent)	18	41.0	7.2	18	47.2	6.3	.001*
online (dependent)	20	46.4	6.9	20	51.3	7.0	.030*
<i>in vivo</i> (independent)				18	47.2	6.3	.07
online (independent)				20	51.3	7.0	.07

\* $p < .05$

**TABLE 3**  
*Dependent combined pre-test and post-tests*

	Pre-test			Post-test			
	N	M	SD	N	M	SD	Significance Level
<i>in vivo</i> and online (combined)	38	43.8	7.5	38	49.4	6.9	.000*

\* $p < .05$

provides facilitators with another avenue to assist their clients.

The existence of a comfortable environment may have put students at ease leading to significant pre-test and post-test gains for online group drumming.<sup>35</sup> The increase in mood pleasantness in both online and *in vivo* participants appears to be aligned with the effect that consistent repetitive rhythm has on a person's brain wave frequencies.<sup>6</sup> The mind begins to focus attention on the rhythm and starts to lower cortisol levels, also lowering stress.<sup>6</sup> At the time of this study, there appear to be no known studies of this kind being performed with the RMM protocol online. It is important to note that earlier studies with *in vivo* participants are consistent with these results.<sup>14, 7</sup> These results were somewhat expected because this group drumming protocol has been well-researched.<sup>12,14</sup> Also, much has been learned over the past year about the positive and negative aspects of online music-making due to the coronavirus pandemic.<sup>35</sup>

The benefits of facilitating an online group drumming protocol provide more people the ability to receive social and emotional assistance. It is beneficial for teachers, counselors, group drumming facilitators, music therapists, students, community members, and others who seek to use this as a tool to improve the emotional well-being of themselves and others. The ability to facilitate an online group drumming RMM protocol also serves the purpose of reaching more individuals than the traditional *in vivo* experience.

## LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

While these findings are positive and favor *in vivo* and online group drumming experiences using the RMM group drumming protocol as a mood enhancer, there are limitations to this study. The present study utilized convenience sampling of college music majors with between four to sixteen years of music-making experience. Future studies should consider using adolescents and older adults with

little musical experience to determine if the protocol affects their mood when being taken online. In this study, the musical experience of participants could have given them an advantage because they were familiar with rhythmic music-making. Further limitations include the number of participants sampled. Since there was no opportunity to randomize participants, convenience sampling was used which led to a limited number of participants available to take part in the study.

In this study, the researcher was also the facilitator of the group drumming intervention. Since I was a trained Remo HealthRHYTHMS facilitator, I felt it was important to implement the RMM protocol consistently between the online and *in vivo* groups. Therefore, I chose to implement the protocol. To address researcher bias, I consistently reflected on and monitored my subjectivity.<sup>41</sup> Monitoring my subjectivity increased my awareness and helped me to keep an open mind throughout the research process allowing me to expand my knowledge. For future research studies, suggestions would be for the researcher to train facilitators to use the RMM protocol to eliminate potential researcher bias.

Suggestions for future research would be to use a larger sample, and a participant pool of diverse ages, musical experiences, and cultures with the RMM protocol. Using a larger sample would allow more quality data to be collected, increase the power of the test, eliminate errors, and pinpoint outliers. Including diverse ages, experience levels, and cultures will further future research studies and advancements for underrepresented groups. Participants online who played with found sounds (homemade instruments found in the home) in place of a drum may have had a different experience than if they had a drum. Future studies would benefit from everyone having a drum to eliminate confounding variables in the data. Using an easily understood mood assessment with pictures for diverse age groups, and providing drums for participants online who may not have a drum would also be

beneficial for future research. This would allow more consistency in the study and create fewer variables, especially with playing the drums and understanding the assessment tool.

What is of particular interest is that the university students participating in the study were in a stressful time of year when this study began. According to the pre-test and post-test results, both the *in vivo* and online students' moods showed improvement from the beginning of the group drumming protocol to the end. In future studies, it would be beneficial to disaggregate the data for each mood to help researchers in understanding which moods were affected the most by the protocol. Breaking down the data into smaller parts can also provide information on similarities and differences in moods between various demographic groups. This is essential information to know because it provides drum circle facilitators with clear evidence of the effectiveness of the moods that were enhanced, as well as a purpose for using the protocol for the populations they serve.

The current research could also be pursued as a mixed-methods study. Adding participant interviews that assist in analyzing whether online or *in vivo* is preferred; studying how participants felt throughout the protocol would bring another perspective to this study. These suggestions are integral in telling the story of why the RMM protocol was successful in enhancing moods both *in vivo* and online.

## IMPLICATIONS FOR MUSIC EDUCATION

The implications for music education are the social and emotional benefits of group drumming, and the importance of community drumming either presented online or *in vivo*, as it serves the purpose of reaching more individuals than *in vivo* alone.

The study appears to have discovered there is a positive effect of performing music online as evidenced by mood enhancement measures. The RMM protocol could be used with other instruments and

voices to see if they have the same effect on mood as group drumming does. The RMM protocol has the ability to be broken into small parts and be used as a warm-up and improvisational tool for instruments and voice. In addition, it can be used to improve the social and emotional well-being of students while educating them on elements of music is essential for music educators.

## END NOTES

1. Sarah Lipsen et al., "Trends In College Student Mental Health and Help-Seeking Race/Ethnicity: Findings From the National Minds Study," *Journal of Affective Disorders* 306, (2022): 138–147, <https://doi.org/10.1016/j.jad.2022.03.038>.
2. Xiaomei Wang et al., "Investigating Mental Health of US College Students During the COVID-19 Pandemic: Cross-Sectional Survey Study," *Journal of Medical Internet Research* 22, 9 (2020): e22817, doi:10.2196/22817
3. Michael Roy, Karendra Devroop, and Alicia Bohn, "The Positive Impact of African Drumming on Elderly Participants' Mood and Demeanour," *Muziki* 16, 2 (2019): 113–25, <https://doi.org/10.1080/18125980.2020.1794945>.
4. Daisy Fancourt et al., "Effects of Group Drumming Interventions on Anxiety, Depression, Social Resilience and Inflammatory Immune Response Among Mental Health Service Users," *PLOS ONE* 11, 3 (2016): e0151136, doi:10.1371/journal.pone.0151136.
5. Simon Faulkner, "Rhythm2recovery: A Model of Practice Combining Rhythmic Music with Cognitive Reflection for Social and Emotional Health Within Trauma Recovery," *Australian and New Zealand Journal of Family Therapy* 38, 4 (2017): 627–636, doi:10.1002/anzf.1268.
6. Bruno Gringas, Gerald Pohler, and W. Tecumseh Fitch, "Exploring Shamanic Journeying: Repetitive Drumming with Shamanic Instructions Induces Specific Subjective Experiences but No Larger Cortisol Decrease Than Instrumental Meditation Music," *Plos ONE* 9,7 (2014): e102103, doi:10.1371/journal.pone.0102103.
7. Renée Mungus and Michael J. Silverman, "Immediate Effects of Group-Based Wellness Drumming on Affective States in University Students," *The Arts in Psychotherapy* 41,3 (2014): 287–92, <https://doi.org/10.1016/j.aip.2014.04.008>.
8. Jennifer StGeorge and Emily Freeman, "Social-Emotional Learning through a Drumming Intervention," *Approaches: An Interdisciplinary Journal of Music Therapy* 12, 1 (2020): 2459–3338.
9. Masatada Wachi et al., "Recreational Music-Making Modulates Natural Killer Cell Cytokines, and States in Corporate Employees," *Medical Science Monitor: International Medical Journal of Experimental and Clinical Research* 13, 2 (2007): CR57–70.
10. "Deep Within: Drumming as A Healing Strategy," Barry Bittman, last modified 2000, <https://healthy.net/2000/12/06/deep-within-drumming-as-a-healing-strategy/>.
11. Barry Bittman et al., "Composite Effects of Group Drumming Music Therapy on Modulation of Neuroendocrine-Immune Parameters in Normal Subjects," *Alternative Therapies in Health and Medicine* 7, 1 (2001): 38–47.
12. Barry Bittman et al., "Recreational Music-Making: A Cost-Effective Group Interdisciplinary Strategy for Reducing Burnout and Improving Mood States in Long-Term Care Workers," *Advances in Mind-Body Medicine* 19, 3–4 (2003): 4–15.
13. Moshe Bensimon, Dorit Amir, and Yuval Wolf, "Drumming Through Trauma: Music Therapy with Post-Traumatic Soldiers," *The Arts in Psychotherapy* 35, 1 (2008): 34–48. doi:10.1016/j.aip.2007.09.002.
14. Masahiro Koyama et al., "Recreational Music-Making Modulates Immunological Responses and Mood States in Older Adults," *Journal of Medical and Dental Sciences* 56(2) (2009): 79–90. <https://doi.org/10.11480/jmds.560201>.
15. Albert Bandura, "Self-efficacy: Toward a Unifying Theory of Behavioral Change," *Psychological Review* 84, 2 (1977): 191–215. <https://doi.org/10.1037/0033-295X.84.2.191>.
16. Howard Gardner, *The Shattered Mind*. (New York: Knopf, 1975).
17. Daniel Goleman, *Emotional Intelligence* (New York: Bantam Books, 1995).
18. Peter Salovey and John Mayer, "Emotional Intelligence," *Imagination, Cognition & Personality* 9, 3 (1990): 185–211.
19. "What Is SEL? - Casel Schoolguide." *Schoolguide.Casel.Org*. Accessed May 1, 2022. <https://schoolguide.casel.org/what-is-sel/what-is-sel/>.
20. Maurice Elias, *Promoting Social and Emotional Learning: Guidelines for Educators*. (Alexandria, Va., USA: Association for Supervision and Curriculum Development, 1997).
21. "The Power of Believing in Yourself," Mariana Pogoyan, last modified July 22, 2022, <https://www.psychologytoday.com/us/blog/between-cultures/202207/the-power-believing-in-yourself>.
22. Howard Gardner, *Frames of mind*. (New York: Basic Books, 1983).
23. Ping Ho et al., "The Impact of Group Drumming on Social-Emotional Behavior in Low-Income Children," *Evidence-Based Complementary and Alternative Medicine* (2011): 1–14. <https://doi.org/10.1093/ecam/nej072>.
24. Sebastian Kirschner and Michael Tomasello, "Joint Drumming: Social Context Facilitates Synchronization in Preschool Children," *Journal of Experimental Child Psychology* 102, (2009): 299–314. doi:10.1016/j.jecp.2008.07.005
25. David Akombo, "Effects of Community African Drumming on Generalized Anxiety in Adolescents," *Approaches: Music Therapy & Special Music Education* 5, 1 (2013): 25–33. <http://approaches.primarymusic.gr>.
26. Ghislaine Goudreau et al., "Hand Drumming: Health-Promoting Experiences of Aboriginal Women from a Northern Ontario Urban Community," *International Journal of Indigenous Health* 4, 1 (2008): 72–83. <https://doi.org/10.18357/ijih41200812317>.
27. Daniel Dickerson et al., "Drum-Assisted Recovery Therapy for Native Americans (DARTNA): Results from a Pre-Test and Focus Groups," *American Indian and Alaska Native Mental Health Research* 21, 1 (2014): 35–58. <https://doi.org/10.5820/aian.2101.2014.35>.
28. Carry Elkins and Dean Owens, "Drums Alive®: A Research-Based, Multi-Disciplinary Drumming Fitness Approach to Brain and Body Health and Wellness," *Palestra* 32,4 (2018): 22–28.
29. Simon Faulkner et al., "Holyoake's Drumbeat Program: Music as A Tool for Social Learn-

ing and Improved Educational Outcomes," *The Australian Journal of Indigenous Education* 39,1 (2010): 98–109. doi:10.1375/s1326011100000958.

30. Simon Faulkner, "Rhythm2Recovery: A Model of Practice Combining Rhythmic Music with Cognitive Reflection for Social and Emotional Health Within Trauma Recovery," *Australian and New Zealand Journal of Family Therapy* 38, (2017): 627–636. doi:10.1002/anzf.126.
31. Varun Venkit et al., "Exploring the Potentials of Group Drumming as a Group Therapy for Young Female Commercial Sex Workers in Mumbai, India," *Arts & Health* 5,2 (2013): 132–41. <https://doi.org/10.1080/17533015.2012.698629>.
32. "Remo Health Rhythms," Remo, Inc., Accessed April 17, 2023, <https://remo.com/programs/healthrhythms>.
33. Daniel Albert, "Social Media in Music Education," *Music Educators Journal* 102, 2 (2015): 31–38. doi:10.1177/0027432115606976.
34. Antonis Ververis and Aristeidis Apostolis, "Online Music Education in the Era of COVID-19: Teaching Instruments in Public Music Secondary Schools of Greece During the 2020 Lockdown," In *International Conference on Studies in Education and Social Sciences* 3 (2020): 1–9.
35. Phillip Hash, "Remote Learning in School Bands During The COVID-19 Shutdown," *Journal of Research in Music Education* 68, 4 (2020): 381–397. doi:10.1177/0022429420967008.
36. Theano Koutsoupidou, "Online Distance Learning and Music Training: Benefits, Drawbacks and Challenges," *The Journal of Open, Distance and e-Learning* 29 (2014): 243–255. <https://api.semanticscholar.org/CorpusID:62724268>.
37. John Mayer and Yvonne N. Gaschke, "The Experience and Meta-Experience of Mood," *Journal of Personality and Social Psychology* 55, 1 (1988): 102–11. <https://doi.org/10.1037/0022-3514.55.1.102>.
38. Rachael Cavallaro, Victoria Bryan, and John Mayer, "A Review and Evaluation of an Open-Source Mood Assessment, The Brief Mood Introspection Scale," (2019) Retrieved from [osf.io/5bjck](https://osf.io/5bjck)
39. Marja Kokkonen and Lea Pulkkinen, "Examination of The Paths Between Personality, Current Mood, Its Evaluation, and Emotion Regulation," *European Journal of Personality* 15, 2 (2001): 83–104. doi:10.1002/per.397.
40. Jamin Halberstadt, Paula M. Niedenthal, and Julia Kushner, "Resolution Of Lexical Ambiguity by Emotional State," *Psychological Science* 6, 5 (1995): 278–282. doi:10.1111/j.1467-9280.1995.tb00511.x.
41. Corrine Glesne, *Becoming Qualitative Researchers* (Boston: Allyn & Bacon, 2006).
42. Ray Meddis, "Bipolar Factors in Mood Adjective Checklists," *British Journal of Social and Clinical Psychology* 11, 2 (1972): 178–84. <https://doi.org/10.1111/j.2044-8260.1972.tb00799.x>.

## REFERENCES

- Albert, Daniel J. 2015. "Social Media In Music Education". *Music Educators Journal* 102 (2): 31-38. doi:10.1177/0027432115606976.
- Bensimon, Moshe, Dorit Amir, and Yuval Wolf. 2008. "Drumming Through Trauma: Music Therapy With Post-Traumatic Soldiers". *The Arts In Psychotherapy* 35 (1): 34-48. doi:10.1016/j.aip.2007.09.002.
- Bittman, Barry. 1998. "Deep Within: Drumming As A Healing Strategy". *Remo*. <https://remo.com/experience/post/deep-within-drumming-as-a-healing-strategy/>.
- Bittman, B., Lee Berk, David L Felten., James Westengard, O Carl Simonton, John Pappas, & M Ninehouser. 2001. "Composite effects of group drumming music therapy on modulation of neuroendocrine-immune parameters in normal subjects." *Alternative Therapies in Health And Medicine*, 7(1), 38–47.
- Bittman, Barry, Karl T. Bruhn, Christine Stevens, James Westengard, and Paul O. Umbach. 2003. "Recreational Music-Making: A Cost-Effective Group Interdisciplinary Strategy for Reducing Burnout and Improving Mood States in Long-Term Care Workers." *Advances in Mind-Body Medicine* 19 (3–4): 4–15.
- Cavallaro, Rachael, Victoria Bryan, and John David Mayer. 2019. "A Review and Evaluation of an Open-Source Mood Assessment, the Brief Mood Introspection Scale." <https://osf.io/5bjck/>.
- "DRUMMING (Noun) American English Definition and Synonyms | Macmillan Dictionary." Accessed October 17, 2022. <https://www.macmillandictionary.com/us/>

[dictionary/american/drumming](https://www.macmillandictionary.com/us/dictionary/american/drumming).

- Elias, Maurice J., ed. 1997. *Promoting Social and Emotional Learning: Guidelines for Educators*. Alexandria, Va., USA: Association for Supervision and Curriculum Development.
- Elkins, Carry and Dean Owens. 2018. "Drums Alive®: A Research-Based, Multi-Disciplinary Drumming Fitness Approach to Brain and Body Health and Wellness." *Palestra* 32(4): 22–28.
- Fancourt, Daisy, Rosie Perkins, Sara Ascenso, Livia A. Carvalho, Andrew Steptoe, and Aaron Williamon. 2016. "Effects Of Group Drumming Interventions On Anxiety, Depression, Social Resilience And Inflammatory Immune Response Among Mental Health Service Users". *PLOS ONE* 11 (3): e0151136. doi:10.1371/journal.pone.0151136.
- Faulkner, Simon. 2017. "Rhythm2recovery: A Model Of Practice Combining Rhythmic Music With Cognitive Reflection For Social And Emotional Health Within Trauma Recovery". *Australian And New Zealand Journal Of Family Therapy* 38 (4): 627-636. doi:10.1002/anzf.1268.
- Faulkner, Simon, Penny Ivery, Lisa Wood, and Robert Donovan. 2009. "Holyoake's Drumbeat Program: Music As A Tool For Social Learning And Improved Educational Outcomes". *The Australian Journal Of Indigenous Education* 39 (1): 98-109. doi:10.1375/s1326011100000958.
- Gingras, Bruno, Gerald Pohler, and W. Tecumseh Fitch. 2014. "Exploring Shamanic Journeying: Repetitive Drumming With Shamanic Instructions Induces Specific Subjective Experiences But No Larger Cortisol Decrease Than Instrumental Meditation Music". *Plos ONE* 9 (7): e102103. doi:10.1371/journal.pone.0102103.
- Halberstadt, Jamin B., Paula M. Niedenthal, and Julia Kushner. 1995. "Resolution Of Lexical Ambiguity By Emotional State". *Psychological Science* 6 (5): 278-282. doi:10.1111/j.1467-9280.1995.tb00511.x.
- Hash, Phillip M. 2020. "Remote Learning In School Bands During The COVID-19 Shutdown". *Journal Of Research In Music Education* 68 (4): 381-397. doi:10.1177/0022429420967008.
- "Health Rhythms Training Schedule". 2021. Accessed April 17. [PERCUSSIVE NOTES ONLINE RESEARCH EDITION . VOLUME II | 23](https://remo.com/experi-</a></p></div><div data-bbox=)

- ence/post/healthrhythms-training-schedule/).  
Kokkonen, Marja, and Lea Pulkkinen.  
2001. "Examination Of The Paths Between Personality, Current Mood, Its Evaluation, And Emotion Regulation". *European Journal Of Personality* 15 (2): 83-104. doi:10.1002/per.397.
- Koutsoupidou, Theano. 2014. "Online Distance Learning And Music Training: Benefits, Drawbacks And Challenges". *Learntechlib.Org*. <https://www.learntechlib.org/p/160411>.
- Koyama, Masahiro, Masatada Wachi, Masanori Utsuyama, Barry Bittman, Katsuioku Hirokawa, and Masanobu Kitagawa. 2009. "Recreational Music-Making Modulates Immunological Responses and Mood States in Older Adults." *Journal of Medical and Dental Sciences* 56(2): 79-90. <https://doi.org/10.11480/jmnds.560201>.
- Mayer, John D., and Yvonne N. Gaschke.1988. "The Experience and Meta-Experience of Mood." *Journal of Personality and Social Psychology* 55 (1): 102-11. <https://psycnet.apa.org/doiLanding?doi=10.1037%2F0022-3514.55.1.102>.
- Meddis, Ray. "Bipolar Factors in Mood Adjective Checklists." 1972. *British Journal of Social and Clinical Psychology* 11 (2): 178-84. <https://doi.org/10.1111/j.2044-8260.1972.tb00799.x>.
- Mungas, Renée, and Michael J. Silverman. "Immediate Effects of Group-Based Wellness Drumming on Affective States in University Students." 2014. *The Arts in Psychotherapy* 41 (3): 287-92. <https://doi.org/10.1016/j.aip.2014.04.008>.
- Roy, Michael, Karendra Devroop, and Alicia Bohn. 2019. "The Positive Impact of African Drumming on Elderly Participants' Mood and Demeanour." *Muziki* 16 (2): 113-25. <https://doi.org/10.1080/18125980.2020.1794945>.
- St.George, J. and E. Freeman. 2020. "Social-Emotional Learning through a Drumming Intervention." *Approaches: An Interdisciplinary Journal of Music Therapy* 12 (1): 2459-3338.
- Venkit, Varun Ramnarayan, Amruta Anand Godse, and Anand Sharad Godse. 2013. "Exploring the Potentials of Group Drumming as a Group Therapy for Young Female Commercial Sex Workers in Mumbai, India." *Arts & Health* 5 (2): 132-41. <https://doi.org/10.1080/17533015.2012.698629>.
- Wachi, Masatada & Koyama, Masahiro & Utsuyama, Masanori & Bittman, Barry & Kitagawa, Masanobu & Hirokawa, Katsuioku. 2007. "Recreational music-making modulates natural killer cell activity, cytokines, and mood states in corporate employees." *Medical science monitor : international medical journal of experimental and clinical research*. 13. CR57-70.
- "What Is SEL? - Casel Schoolguide". *Schoolguide.Casel.Org*. Accessed May 1, 2022. <https://schoolguide.casel.org/what-is-sel/what-is-sel/>. ●



# Feedback Loops Between Drummers and Tap Dancers: Papa Jo Jones

by John MacDonald

## Abstract

At the beginning of his 2023 interview on the 80/20 Drummer Podcast, renowned jazz drummer Gregory Hutchinson stressed the foundational importance of tap dancing in relation to jazz drumming, emphasizing rhythm and phrasing. Hutchinson is certainly not the first drummer to highlight this relationship, echoing often non-specific assertions of earlier jazz drummers, including Chick Webb, Max Roach, Buddy Rich, Louis Bellson, and Max Roach. This paper sheds light on the relationship between jazz drumming and tap dancing, centered around tap-dancing drummer Papa Jo Jones. Drawing on research by Marshall Stearns and Brian Harker related to the comingled histories of jazz music and dance, I point towards the dialogic exchange of musical vocabulary and style between drummers and tap dancers, exemplified by several tracks in Jones' solo album "The Drums" dedicated to his favorite tap dancers, Bill Robinson, Eddie Rector, and "Baby" Laurence. Examination of transcriptions of these tracks aids in detailing their influence on Jones' drumming style and, further, the influence of Jones' drumming on tap dancing style. While focusing on the specific case of Papa Jo Jones, this paper sets the stage for further exploration of the broader relationship between tap dancing and drumming in jazz music.

## INTRODUCTION

There are numerous approaches to examining the development of jazz drum set vocabulary. Previous examinations have focused on tracing the influence of drummers on other drummers and the similar influence of other instrumentalists on drummers.<sup>1</sup> While musical analyses of this nature are crucial in illustrating a lineage, they overlook the musical influence of non-musicians on the development of musical style. Many influential jazz musicians, including Louis Armstrong, Thelonious Monk, and Max Roach among others, have spoken about the influence of tap dance on their personal style, without ever articulating the musical specifics of this influence. Examinations of the influence of tap dancing on the development of Louis Armstrong's soloistic style by Brian Harker provide a foothold for fur-

ther studies of this nature.<sup>2</sup> In this paper, I will focus on the career of tap dancer and drummer Papa Jo Jones to clarify the musical specifics of the relationship between jazz drumming and tap dancing. I briefly summarize the relevant historical background of tap dance and American rudimental drumming, centering around Jones's "brushes" with tap dance, leading up to an analysis of three tracks dedicated to his favorite tap dancers found on his 1973 drum solo album, "The Drums." After examining transcriptions of these tracks in comparison with tap dance performances, it is shown to be likely that several of Jones' innovations, such as the use of sweeping brushes on the snare drum and the sustained sound of timekeeping on the ride cymbal, took heavy influence from various tap dancing styles.

## SETTING THE STAGE Papa Jo Jones

Papa Jo Jones (b. 1911, Chicago) worked as a tap dancer at carnival shows on the Vaudeville circuit at a young age.<sup>3</sup> In an interview, he claimed that he was "the Tap Charleston champion of the United States" for two years.<sup>4</sup> Jones was pressured into joining Count (William) Basie's band as a drummer, after initially thinking of himself "as a piano player who could also sing and dance."<sup>5</sup>

Papa Jo Jones is recognized in the jazz community for having a significant influence on popular drum set style between the early jazz and swing eras, shifting timekeeping from the heavy "kick" (bass) drum accompanied by woodblock to lighter sounds from the hi-hat and brushes on the snare drum. In Jones' own style, this dramatic change in drumming style

was largely inspired by tap and sand dancing, a style of dance where sand is sprinkled across the floor allowing the dancer to achieve a coarse, sustained sound by dragging their feet across the floor. Jones often spoke about the influence of tap dance on his playing, eventually recording several tracks on his album “The Drums” inspired by and dedicated to his favorite dancers. The subsequent generation of drummers took influence from Jones, and contemporary tap dancers took influence from these drummers. Years later, Jones took influence from these young dancers, completing what I will call a feedback loop in this paper. As Jones is often credited for many fundamental principles of modern drum set playing, the impact of dance on his style has been surprisingly underrepresented in writing.

## Dancers and Drummers

Though many influential drummers including Philly Jo Jones, Papa Jo Jones, Sid Catlett, Chick Webb, Max Roach, Buddy Rich, Earl Palmer, and Steve Gadd have spoken openly (if sometimes non-specifically) about the importance of the relationship between tap and drumming, there is little scholarly work that examines the musical relationship between these coexistent rhythmic arts.<sup>6</sup> The most closely related literature to the topic at hand can be found in the latter half of chapter two of Brian Harker’s “Louis Armstrong’s Hot Five and Hot Seven Recordings” and in chapter eight of Constance Valis Hill’s “Tap Dancing America”. Harker examines the influence of rhythm tap on Louis Armstrong’s rhythmic language, examining Armstrong’s rhythmic tendencies before and after his collaborations with tap dancing act Brown and McGraw, among others.<sup>7</sup> Hill approaches the issue from the viewpoint of dance, writing of the bebop-like characteristics of the rhythm tap style during the sixties. After recounting a heated dance battle between Groundhog Basie and Chuck Green accompanied by Jo Jones and Max Roach on the drum set, Hill writes of the

influence of drummers on the style of tap dancer Baby Laurence, going so far as to assert that Laurence was “essentially a great drummer.”<sup>8</sup> Several other books, including Burt Korall’s “Drummin’ Men” and Robin D.G. Kelley’s “Thelonious Monk: The Life and Times of an American Original”, contain sections that similarly assert the influence of dancers on jazz musicians, though these assertions are conversational and non-analytic. Korall’s chapter on Jo Jones contains excerpts of interviews with Jones and several of his bandmates over the years speaking about the numerous ways that working closely with tap dancers influenced the styles of drummers in Kansas City.

In his 1973 solo album “The Drums”, Jones speaks about the influence of several drummers and dancers on his approach to drumming and then plays drum solos dedicated to each. The C side of the album, specifically tracks C3-C7 titled after several tap dancers, is critical to the discussion at hand because Jones repeatedly asserts the importance of several tap dancers to his style, though his brief introductions do not fully express the specifics of this importance. Transcription and analysis of Jones’ solos on the tracks dedicated to tap dancers will provide deeper insight into what he considered to be the defining elements of their dancing. Examination of the solos dedicated to Bill Robinson and Eddie Rector will provide a clearer understanding of the feedback loop between the earliest dancers and Jones’s style. Jones’ style had a significant impact on the popular drum set style of the time, which, in turn, influenced the style of the subsequent generation of dancers and drummers. Ultimately, this stylistic development came full circle, feeding back into Jones’ style decades later through the drummer-like dancing of Baby Laurence.

Decades prior to this mixing of dance and drumming styles, drummers and dancers played very different roles as entertainers. In the nightclubs of early 20th century New Orleans, dancers were the center of attention onstage while drum-

mers kept simple time, often situated behind horn players and dancers. Dancers performed flashy, attention-grabbing steps; drummers played mostly quarter notes and didn’t take many solos, playing a more foundational role in the ensemble.<sup>9</sup> Early jazz drummer Zutty Singleton described the secondary role of drummers in the ensemble, stating “We just kept the rhythm going and hardly ever took a solo.”<sup>10</sup>

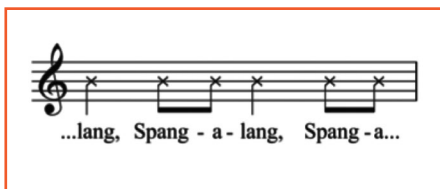
Differences in style and function began to blur over time as the styles of drummers and dancers converged around their shared repertoire. In other words, the more that dancers and drummers performed together, the more influence each took from the other. It was especially common for big bands, such as those of Louis Armstrong, Duke Ellington, Chick Webb, and Count Basie, to regularly perform with tap dancers in nightclubs across the country, notably in Kansas City, where Jo Jones rose to prominence with the Count Basie Band.<sup>11</sup> Pianist Jay McShann asserted that Kansas City drummers played better than famous drummers from elsewhere because of how often they played with dancers, continuing that “drummers and dancers get to understand each other, particularly if they work together for a while.”<sup>12</sup>

By the end of the swing era, tap and jazz drumming shared many musical elements, such as phrasing, “rudimental” vocabulary, and stage presence. There were also notably greater differences between tap steps and drum rudiments at the beginning of the swing era compared to the notably more similar sets of steps and rudiments at the end of the swing era, some of which will be highlighted in the analysis portion of this paper. Though modern jazz drumming and tap dancing have stylistically diverged over time, they developed in a mutually influential manner for much of the first half of the 20th century, constantly taking feedback from each other while musicians and dancers shared the same stages.

## Jazz Drumming Styles in Relation to Tap

As mentioned above, early drum set players simply “kept the rhythm going and hardly ever took a solo.”<sup>13</sup> Papa Jo Jones is recognized in the drumming community as a major influence on shifting the standard timekeeping pattern from heavy quarter notes on the bass drum, press rolls on the snare drum, and lighter patterns on various percussion instruments to more syncopated, over-the-barline rhythms on the hi-hat.<sup>14</sup> By the late 1920s and early 1930s, Jones’s hi-hat rhythms had evolved into the ubiquitous, mnemonic ‘lang-spang-a-lang’ ride cymbal pattern (see Figure 1 for notation),<sup>15</sup> This pattern was the driving force behind drumming throughout the swing era and remained one of the most important stylistic signifiers of the bebop era of the 1950s. Kenny Clarke (1914-1985), one of the most renowned drummers associated with the transition from big band swing to the bebop era, is credited as the most prominent progenitor of this pattern.<sup>16</sup> Though Clarke rarely spoke about the influence of tap on his playing, he often spoke about the influence of Papa Jo Jones, who, in turn, spoke openly about tap’s influence on his playing.<sup>17</sup> Max Roach, another important drummer of the bebop era who openly spoke of Jones’ influence, was also a tap dancer and often accompanied tapper Baby Laurence, trading with him in a call-and-response format and imitating his rhythms.<sup>18</sup>

Figure 1: Notation for the ‘lang spang-a-lang’ or ‘spang-a-lang’ pattern. Most often at slower tempi, eighth notes are played with a swing feel.



It is no secret that many jazz drummers before and during Jones’ time, including trendsetters like Baby Dodds, Kenny Clarke, and Jones, stressed the importance of practicing and incorporating rudiments (figure 2), basic sticking patterns,

into their playing.<sup>19</sup> Rudiments were originally used by Swiss mercenaries during the Renaissance to signal battle formations. The earliest list of rudiments has been traced to 1612 in Switzerland. Rudimental drumming eventually spread to America, where it was used to send sim-

ilar signals during the Civil War. Below, I will discuss the relationship between rudiments and the tapping patterns of dancers.

Figure 2: A partial list of the drum rudiments from the Percussive Arts Society. Several of these rudiments are discussed in the analysis portion of the paper, namely the single stroke roll, five stroke roll, seven stroke roll, paradiddle, and drags/ruffs (the drag as listed in Section IV of this figure is referred to as a ruff in this paper).

### PERCUSSIVE ARTS SOCIETY INTERNATIONAL DRUM RUDIMENTS

All rudiments should be practiced: open (slow) to close (fast) to open (slow) and/or at an even moderate march tempo.

#### I. ROLL RUDIMENTS

##### A. Single Stroke Roll Rudiments

1. Single Stroke Roll \*

R L R L R L R L

2. Single Stroke Four

3                    3

R L R L    R L R L

L R L R    L R L R

3. Single Stroke Seven

6

R L R L R L R

L R L R L R L

##### B. Multiple Bounce Roll Rudiments

4. Multiple Bounce Roll

z

5. Triple Stroke Roll

3                    3                    3                    3

R R R L L L R R R L L L

##### C. Double Stroke Open Roll Rudiments

6. Double Stroke Open Roll \*

R R L L R R L L

7. Five Stroke Roll \*

5                    5

R    R    L    L

8. Six Stroke Roll

6                    6

R    L R    L    R

L    R L    R    L

9. Seven Stroke Roll \*

7                    7

R    L R    L    R

L    R L    R    L

\* These rudiments are also included in the original Standard 26 American Drum Rudiments.

**PERCUSSIVE**  
SOCIETY
Copyright © 1984 by the Percussive Arts Society™  
110 W. Washington Street, Suite A, Indianapolis, IN 46204  
International Copyright Secured      All Rights Reserved

#### III. FLAM RUDIMENTS

20. Flam \*

L R                  R L

21. Flam Accent \*

L R    L    R    R L    R    L

22. Flam Tap \*

L R    R R L    L L R    R R L    L

10. Nine Stroke Roll \*

9                    9

R    R                  L    L

11. Ten Stroke Roll \*

10                    10

R    R L    R    R L

L    L R    L    L R

12. Eleven Stroke Roll \*

11                    11

R    R L    R    R L

L    L R    L    L R

13. Thirteen Stroke Roll \*

13                    13

R                    R    L                  L

14. Fifteen Stroke Roll \*

15                    15

R                    L R                  L R                  L

L                    R L                  R L                  R

15. Seventeen Stroke Roll

17                    17

R                    R    L                  L

#### II. DIDDLE RUDIMENTS

16. Single Paradiddle \*

R L R R L L L L

17. Double Paradiddle \*

R L R L R R L R L R L L

18. Triple Paradiddle

R L R L R L R R L R L R L L L L

19. Single Paradiddle-diddle

R L R R L L R L R R L L R L L R R

#### IV. DRAG RUDIMENTS

31. Drag \*

L L R                  R R L

32. Single Drag Tap \*

L L R    L R R L    R

33. Double Drag Tap \*

L L R    L L R    L    R R L    R R L    R

## Tap Styles in Relation to Jazz Drumming

The phrase “tap dance” was already in use by 1905.<sup>20</sup> Tap was brought to life by the spirit of one-upmanship, with dancers constantly appropriating and recombining each other’s styles.<sup>21</sup> What began as tap, though it had existed under different names for many years previous, branched into styles such as flash tap, soft shoe, eccentric dance, class dancing, and rhythm tap.<sup>22</sup> The most percussive of these styles – and therefore those most relevant to the current discussion – are eccentric dancing, flash tap, and rhythm tap. John Bubbles is recognized as the father of rhythm tap and was known for his syncopated rhythms that sounded like bebop drumming.<sup>23</sup> Bubbles was one of the few tap dancers, also including Baby Laurence, Groundhog Basie, and Bubble’s protégé Chuck Green, who danced to highly improvisational, less danceable bebop music.<sup>24</sup>

Tap steps like those listed in Figure 3 are the foundational movements of tap dancing, very similar in function to drum rudiments. Steps are basic building blocks that are combined into longer patterns which are organized further into routines. Names for tap steps have not been as universally recognized as those for drum rudiments. There is no standardized list of tap steps, though there are several sources that compile similar lists of basic steps.<sup>25</sup> Many tap steps existed earlier in other types of dance. Some of these emanated from African (specifically Kongo-lesse) Juba dancing while a step called “the Irish” is rooted in jig dancing. Other steps are named identically to drum rudiments, such as the paradiddle.

Brian Harker’s book and article deeply explore the interplay between eccentric and tap dancers (especially tappers Herbert Brown and Naomi McGraw) and the style of Louis Armstrong.<sup>26</sup> A similar comparison between the use of drum rudiments and tap steps provides a basis for analysis of tap performances and Jones’ solos dedicated to tap dancers on “The Drums.”

## Analysis: Feedback Loops Between Jazz Drum Set and Tap Dancing

The purpose of this analysis is to examine the nature of the changes in the style of tap dance and drumming during the swing era focusing on rudiments/steps, phrasing, and the relationship to swing music. The analysis focuses on the relationships between the drumming of Papa Jo Jones and dancers Eddie Rector, Bill Robinson, and Baby Laurence. I characterize the performance styles of these dancers and the drumming of Papa Jo Jones as a “feedback loop” that influenced the behaviors of jazz drummers from the 1930s through the 1960s.

In this paper, I will use the term “feedback loop” to describe exchanges in musical vocabulary between drummers and tap dancers. A feedback loop occurs when a system’s output is taken as input by the same system. For example, a microphone

amplifies input noise which is then projected through a loudspeaker. The sound from this loudspeaker is fed back into the microphone, amplified again, and so on.

I will trace this phenomenon over the course of several years so that one can examine which group (dancers or drummers) originated a particular concept, how it was interpreted by the other group, and how it was reinterpreted once again as it found its way back to the first group. This paper examines a feedback loop over the course of almost 50 years. An interval this large is necessary to demonstrate a significant change in musical vocabulary, as the exchange of vocabulary is very gradual. A primary source for my analysis is the second half of his 1973 drum solo album, *The Drums*; full transcriptions from this recording may be found in the Appendix. First, I will detail the styles and foundational mechanics of both drumming and tap dancing. Then I will use these analyt-

Figure 3: A list of basic tap steps. Some of these steps are compared to drum rudiments in the following analysis.

### **BASIC STEPS**

#### **Steps:**

- **Step** (changing weight, ball of the foot)
- **Stamp** (changing weight, whole foot, heavy sound)
- **Stomp** (NO change of weight, whole foot, heavy sound)

#### **Jumps:**

- **Jump** (always landing on two feet)
- **Hop** (same foot, one foot)
- **Leap** (changing feet, always land on one foot)
- **Shot Beat** (heavy, whole-foot leap to side)

#### **Basic Sounds:**

- **Brush** (swinging motion forward or back;; do not scrape) - *ball*
- **Taps** (comes off floor) - *ball, heel, toe*
- **Beats** (stays on floor) - *ball, heel, toe*
- **Dig** (bend knee back to start) - *ball, heel*
- **Drop** (other part of foot is already on the ground) - *ball, heel*
- **Stud** (release from floor immediately) - *ball, heel*
- **Chug** (one or both heels “dropping” at same time, usually travels forward)

#### **Basic Tap Steps:**

- **Flap** (brush forward) R, step R)
- **Running Flap** (brush forward R, leap R)
- **Shuffle** (brush forward R, brush back R)
- **Scuffle** (scuff forward R, brush back R)
- **Rifle** (ball dig R, heel dig R, brush back R)
- **Ball Change** (2 quick steps done in one count or less; usually step back 1<sup>st</sup>)
- **Grapevine** (ball changes done side to side, switching / crossing feet)

ical tools to investigate three tracks from this recording in which Jones creates a drum solo dedicated to three different tap dancers.

### Track 1: Bill ‘Bojangles’ Robinson

Bill ‘Bojangles’ Robinson (1878-1949) was one of the most renowned tap dancers of the early 1900s.<sup>27</sup> His career began on the Vaudeville circuits around 1902, where he was often the only black performer. His signature stair dance catapulted him into the spotlight in 1918.<sup>28</sup> He was featured in nine feature-length Hollywood films, including four Shirley Temple movies. Robinson performed alongside jazz giants such as Don Redman, Duke Ellington, and Count Basie.<sup>29</sup>

In the words of Papa Jo Jones, Robinson “stepped before there was music” to go along with it.<sup>30</sup> Jones may have been referring to swing music specifically because Robinson’s rhythms have much in common with earlier ragtime rhythms. In contrast to the young rhythm tappers, Robinson perfected old steps rather than creating new ones.<sup>31</sup> Several characteristic patterns appear regularly in Robinson’s dances. Robinson frequently uses an eighth-quarter pattern that creates a three-over-four over-the-barline feel and a quarter-note triplet rhythm (Figure 3); these rhythmic figures originate from ragtime and were later adopted by instrumentalists.<sup>32</sup>

### Structure

Jones’s solo dedicated to Robinson is played entirely on the rims of his drum set, including a snare drum with the snares turned off and two tom-toms. Jones uses only the rims to achieve an articulation that is timbrally much more similar to a tap dancer than to the typical jazz drum solo. The use of all of the different rims creates an accent pattern that illuminates sticking patterns much more clearly than they would be if played on a single surface. Jones marks accented beats with his kick drum throughout the solo. This deeper sound is likely an imitation of a stamp or stomp, a tap step that

uses the whole foot to create a heavier sound.

Jones begins the solo with a short 4-measure introduction, marked by clicking his sticks to a ragtime rhythm instead of striking the rims of his drums. Ragtime influence is further solidified in Jones’s use of the secondary rag. The first 16 measures of the solo are almost entirely composed of three-note groupings over a 4/4 time signature. Jones begins to use ruffs and rolls (see Figure 1.1 for notation) to accent the downbeat beginning in measure 16 (into the downbeat of 17), as well as in measures 21, 25, 29, 33, and 35. He rarely uses ruffs or drags to emphasize beats

other than the downbeat. Jones contrasts quarter note-heavy phrases with over-the-barline phrases beginning in measure 24 and continuing to the end of the solo. Jones ends the solo with a powerful quarter-note triplet phrase.

### Implications

This solo represents the beginning of a feedback loop between rhythm tap and jazz drumming. The dominant element in Jones’s solo is undoubtedly what many call the ‘secondary rag,’ as it constitutes most of the solo. Jones’s usage of this rhythm demonstrates his belief that this rhythm was characteristic of Robinson

Figure 4: Three popular rhythms of the early 1900s, notably used by King Oliver and Louis Armstrong.<sup>33</sup>

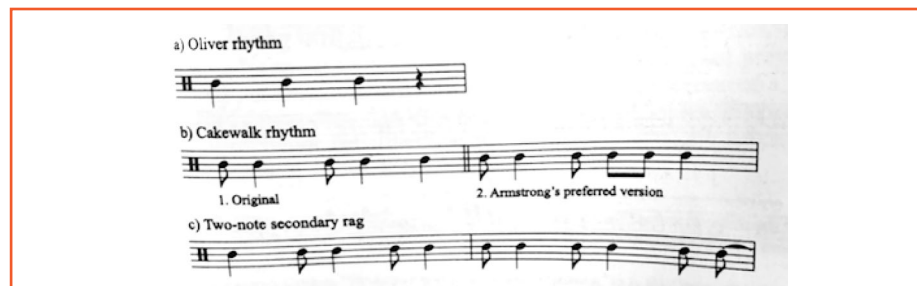


Figure 5: The introduction to Jones’s solo on ‘The Drums’; uses a rhythm very similar to the cakewalk rhythm.



Figure 6: Excerpts from Bill Robinson’s ‘King for a Day’ (top) and Jones’s solo (bottom). Robinson utilizes the two-note secondary rag rhythm while Jones achieves a similar feel by accenting eighth notes in three-note groupings.



and his contemporaries. If Jones's claim that "Robinson danced the way that he danced before there was music to accompany him" is taken literally, then Robinson may not have considered his over-the-barline syncopation a reflection of ragtime.<sup>34</sup> Instead he may have thought of it as more rooted in dance tradition. Whatever his view of its origins, Robinson helped to popularize the rhythm.

Though Jones plays several of paradiddle stickings in his solo, most of these stickings appear to be an unintended product of the three-eighth-note accent pattern. For example, there are inverted paradiddles in measures 7 and 8 as well as a paradiddle in measure 9. Given the context that they appear in (surrounded on both sides by three-eighth-note groupings), I doubt that Jones was thinking of playing paradiddles but was instead focusing more on creating variations of the secondary rag. Jones only plays three 7-stroke rolls in the whole solo, a number significantly lower than the twenty-four drags played. This shows that Jones associated ruffs/drags with Robinson much more strongly than paradiddles, drum rolls, and other marching drumming rudiments. While Robinson may not have added many stickings to Jones's vocabulary, Robinson's repetition, development, and displacement of phrases certainly influenced Jones's playing while his stage presence and style influenced Jones's approach to showmanship.

Though little in Jones's solo for Robinson points towards influence from sand dance, it is still worth noting that Jones's trademark ride cymbal pattern is very similar to Robinson's timekeeping sand dancing in "Stormy Weather"(1943). Because Robinson's dance remained "unchanged for 60 years", his interpretation of the sand may provide valuable insight into the dance's roots.<sup>35</sup> Sand dancers popularized this rhythm before Jones adapted the rhythm to the drum set, first using brushes (introduced in 1912) on the snare drum and eventually moving to the cymbals.

Measure 15 in my excerpt of "King for

a Day" is identical to the second to last measure of Jones's solo. These measures also serve a similar transitional purpose; Jones uses the passage to end his solo while Robinson uses it to end a section and move into a tempo change. While their phrasing and sounds are very similar, the rudiments that Jones uses to imitate Robinson's tapping are fundamentally different from the steps that Robinson uses.

## Track 2: Eddie Rector

Eddie Rector (1898-1962) is known for his seamless flow of sound and movement. He began his career as a dancer on the vaudeville circuit at age 15. Rector performed alongside Duke Ellington at the Cotton Club throughout the 1930's. Few recordings of Rector exist, possibly due to his mental breakdown and institutionalization in 1934, which took him out of show business for several years.

Jones credits Rector as the "inventor of the sand", though sand dance existed long before Rector. Jones was likely referencing Rector's sand dance feature on "Underneath the Swanee Moon" from the musical "Shuffle Along."

## Structure

Jones's solo dedicated to Rector is played entirely with brushes. It begins

with a 16-bar introduction on the hi-hat, which is likely intended to imitate a band introducing Rector. Jones reveals his 'Rector' by shifting entirely to the snare drum after his introduction. For the first eight bars of this section, Jones sweeps smoothly and continuously with his left hand and taps percussively with his right, imitating the sustained sound of Rector sweeping his feet across a sandy floor. Jones returns to this texture momentarily in measures 49-50 but doesn't linger for too long, as this pattern is more commonly invoked as an accompaniment than a soloistic line.

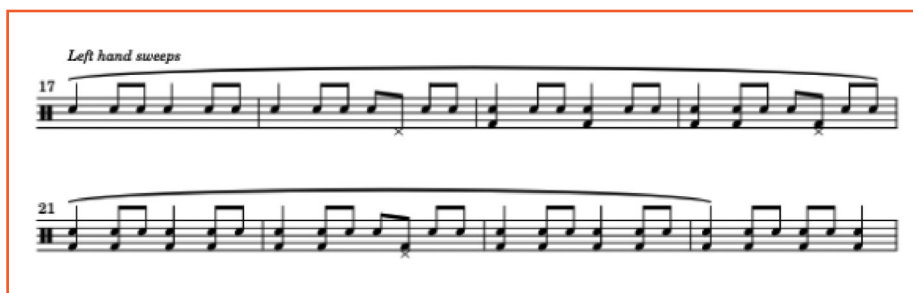
The theme of the solo is introduced in the 25th measure; this theme is returned to regularly with small variations for the rest of the solo (Figure 4). Passages between the recurrences of this theme are broken into mostly 16-bar phrases that can be broken down further into two-measure calls and responses (figure 4).

Jones limits his vocabulary to legato brushed sweeps, single-handed shuffles, single taps, and 5-stroke rolls. He uses fewer than five 3-stroke ruffs and only a single flam. Most phrases are rhythmically resolved at the downbeat every two bars with the exception of the extended secondary rag from measures 87-96.

Figure 7: The ending of Jones's solo (left) side by side with a transitional section in Bill Robinson's dance in 'King for a Day' (right).



Figure 8: The 'spang-spang-a-lang' pattern played with brushes on the snare drum in Jones's solo dedicated to Rector.



## Implications

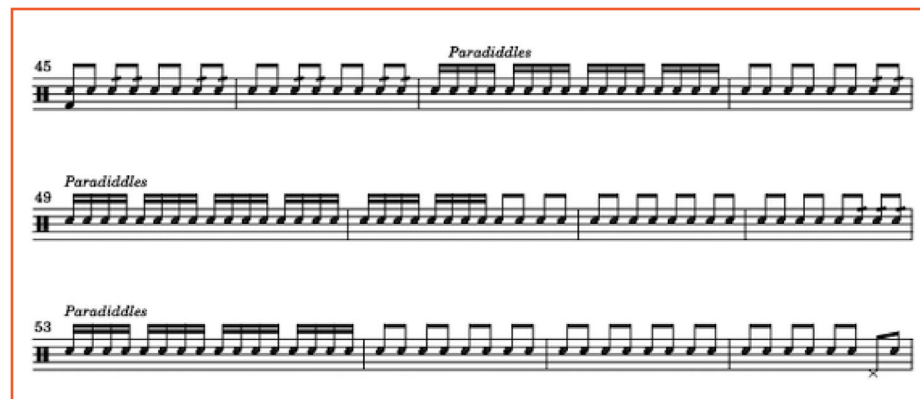
This solo represents the beginning of a feedback loop between Jones and the sand dance. Most of the material in Jones's solo is an interpretation of sand dancing, which makes this solo something of an ode to the beginning of a relationship between two previously separate arts. Jones uses notably fewer drum rudiments than he regularly solos with, which indicates that Jones viewed sand dance vocabulary to be fundamentally separate from rudimental drumming vocabulary. Additionally, Jones uses several techniques that

are derived entirely from sand dance and have no rudimental predecessor, such as his sweeping and shuffling motions from measure 49-53. The time-keeping pattern introduced in measure 17 is the prototype for the previously mentioned 'spang-spang-a-lang' ride cymbal pattern. As the drum set prior to Jones's time didn't utilize a sustained ride cymbal sound as the primary timekeeper, Jones's attention to the sustained sounds of sand dancing likely significantly influenced the evolution of the drum set itself.

Figure 9: Several repetitions and small variations of a one-bar phrase of Jones's solo for Rector (on the left side). The one-bar phrase is used as a call and is followed by a one bar response.



Figure 10: An excerpt of Jones's solo for Baby Laurence. Note the use of sixteenth notes, paradiddles, 5-stroke rolls, and 7-stroke rolls that were not used in the previous two solos.



## Track 3: Baby Laurence

Jackson 'Baby' Laurence (1921-1974) was a professional singer before he was a dancer. At the age of 11, he went on tour as a vocalist with Don Redman. He began to perform as a tap dancer in the 1930s, appearing alongside Count Basie, Duke Ellington, Art Tatum, and Charles Mingus, among others. He became known as a bebop tapper and was capable of trading on equal footing with giants such as Miles Davis, Charlie Parker, Max Roach, and Bud Powell. Unlike previous tap dancers, Laurence was known to improvise routines instead of performing rehearsed routines such as Rector's "Sand Dance" or Robinson's "Stair Dance."

## Structure

Jones begins his solo with a 16-measure introduction on the hi-hat. Again, he plays only on the rims of his drums after this point. The following 16 measures utilize the secondary rag very similarly to Jones's solo for Bill Robinson. Jones begins to group phrases into large groupings of eight bars, as can be seen from measures 33-40 and 61-68. Jones breaks steady streams of eighth notes with sixteenth notes (m. 59, 61, 65) and quarter notes (m. 70-76), supplanting the secondary rag used in his previous solos. Jones ends his solo with a decelerando and decrescendo to fade out.

Jones uses many rudiments in this solo: ruffs (m. 17, 41, 42, 43, 53, 69, 78, and more), 5-stroke rolls (m. 33, 54, 55, 56, 58, and more), 7-stroke rolls (m. 24, 40, 48, 62, and more) and paradiddles (m. 57, 58, 59, 60, 63, and more) among other rudiments. Jones also regularly uses note rates outside of the swung eighth note subdivision (m. 24, 41-43, 48, 57-63, and more).

## Implications

Jones's solo dedicated to Laurence represents a full trip around a feedback loop. Just as Jones began taking influence from tap dancers, Laurence's rudimental vocabulary, marked by his use (and the previous dancers' non-use) of paradiddles, 5 and 7-stroke rolls, sixteenth notes, and

more, takes clear influence from rudimental drummers.

Laurence incorporates footings that are seemingly much more rudimental than the previous two dancers, using many more odd-numbered stroke rolls (5, 7, 9), paradiddles, and ruffs/drags. Laurence's rolls are very defined; every stroke can be heard clearly and strokes are very evenly spaced, much like the rolls of a bebop drummer. He also uses rolls to accent beats other than the downbeat, unlike the previous two dancers. Laurence regularly shifts between triplets, shuffled eighth notes, and sixteenth notes while Rector and Robinson stay mostly within the swung eighth note subdivision. This marks an expansion on previous tap styles, incorporating rhythmic variety that is more characteristic of bebop drumming. Jones imitates Laurence by using many rudiments, increased syncopation, and breaks out of the swung eighth note grid, yielding a solo that contains a much higher concentration of all of these ingredients than the previous two solos.

Laurence is almost certainly improvising in many of the segments of the *Jazz Hooper* film, as is made evident by the uncertainty of the ending (for example, the band finishes and Laurence's tapping slowly dies out).<sup>36</sup> Previous tap dancers often worked out routines, like Bill Robinson's "Stair Dance" or Eddie Rector's "The Sand". These significant differences between Laurence and his predecessors illuminate the influence that he took from drummers of the time. On the other hand, influential drummers (such as Papa Jo Jones later in his life and Max Roach) spoke about taking influence from Laurence. Looking back, it is clear that early tap dancers (such as Bill Robinson, and Eddie Rector) influenced the style of Papa Jo Jones, who influenced the next generation of drummers (Kenny Clarke, Max Roach), who influenced younger tap dancers (Baby Laurence), who influenced drummers again (Jones and Roach).

## CONCLUSION

While I have explored the relationship between the drumming of Papa Jo Jones and several famous dancers of his era, this paper only begins to examine the relationship between tap dance and drumming. This paper identifies several ideas originating from dance, such as the smooth texture of the sand of Rector and the over-the-barline tapping of Bill Robinson, and then attempts to clarify how Jones (and, by extension, other drummers) interpreted these styles. It seems likely that the 'spang-spang-a-lang' pattern evolved from the textural sustained sound of sand dancing combined with typical tap dancing patterns, an evolution that was largely facilitated by Papa Jo Jones. The paper finally examines how tap-inspired drumming influenced drumming-inspired tap. While this paper examines the beginning (in the 1920s) and the end (in the 1960s) of this feedback loop, there is a 40-year range between that requires more in-depth study. In this period, drummers may have taken more influence from Jones and other drummers than directly from dancers, though, as this paper demonstrates, their musical vocabulary was still heavily derived from dance. Many of these drummers, such as Max Roach, likely influenced later tap dancers such as Baby Laurence. Further studies could search for musical traces of tap dancing (some of which are discussed in this paper) in drummers of this era who never directly spoke about the influence of dance, such as Kenny Clarke. Additionally, studies can examine the relationship between other drummers and dancers who directly spoke about the influence of tap, such as Max Roach and Steve Gadd.

## END NOTES

1. Anthony Brown. "Modern Jazz Drumset Artistry." *The Black Perspective in Music*.
2. Brian Harker. "Louis Armstrong, Eccentric Dance, and the Evolution of Jazz on the Eve of Swing." *Journal of the American Musicological Society* 1 April 2008; 61 (1): 67-121.
3. Howard Spring. "Dance and Jazz." *Grove Music Online* (2003)

4. Paul Devlin. *Rifftide: the Life and Opinions of Papa Jo Jones*. (Minneapolis, University of Minnesota Press, 2011), 15.
5. Devlin, *Rifftide*, 43.
6. Albert Murray. *Good Morning Blues*. (New York City, Random House, 1985), 150.
7. Brian Harker. *Louis Armstrong's Hot Five and Hot Seven Recordings*. (New York, Oxford University Press, 2011), 22.
8. Ibid.
9. Leonard Feather. *The Encyclopedia of Jazz*. (New York, Horizon Press, 1960), 124.
10. Korall, Burt. *Drummin' Men: The Heartbeat of Jazz, The Swing Years*. (New York City, Oxford University Press, 2002), 31.
11. Zachary King. "A Brief History of Jazz Drumming" (2014). 5-6. <https://scholars.unh.edu/honors/210>
12. King, *A Brief History*, 7
13. Edmund Thigpen. "Kenny Clarke: Jazz Pioneer." *Modern Drummer Magazine*, 1984, 19.
14. Spring, "Dance and jazz." (2003)
15. Constance Hill. *Tap Dancing America: A Cultural History*. (New York, Oxford University Press, 2015), 33.
16. Fred Strickler. "Tap dance (USA)." *Grove Music Online* (2013)
17. Lindsay Guarino. *Jazz Dance: A History of the Roots and Branches*. (Gainesville, University Press of Florida, 2015), 139-147.
18. Claude Conyers. "Bubbles, John." *Grove Music Online*. (2011)
19. Library of Congress, "Bill 'Bojangles' Robinson Biography," Accessed February 7, 2019, <http://memory.loc.gov/diglib/ih/as/loc.music.tdabio.154/default.html>.
20. Stearns, *Jazz Dance*, 185
21. Hill, Constance Valis. *Tap Dancing America: A Cultural History*. New York, NY: Oxford University Press, 2015.
22. Devlin, *Rifftide*, 56
23. Stearns, *Jazz Dance*, 187
24. Harker, *Hot 5's and 7's*, 44
25. Harker, *Hot 5's and 7's*, 45
26. Devlin, *Rifftide*, 56
27. Morrison, *Tap and Teeth: Virtuosity and the Smile in the Films of Bill Robinson and Eleanor Powell*
28. <https://www.youtube.com/watch?v=D-41C4XUxMu4>; Laurence trades improvisations with a drummer from 2:47 to the end of the video



## BIBLIOGRAPHY

### Primary Sources

- Jones, Jonathan, Paul Devlin, Albert Murray, and Phil Schaap. *Riff tide: the Life and Opinions of Papa Jo Jones*. Minneapolis: University of Minnesota Press, 2011.
- Basie, William, and Albert Murray. *Good Morning Blues*. New York City, NY: Random House, 1985.
- Dodds, Warren. *Baby Dodds Talking & Drum Solos*. Recorded 1950. Folkways Records, Vinyl recording.
- Webb, William. *Chick Webb: a Legend. Volume One (1929-1936)*. Performed by Chick Webb Orchestra. Recorded 1959. Decca, Vinyl LP.
- Hancock, Bill, editor. *Jazz Hooper: the Story of the Legendary Baby Laurence*. 1986; New York City, NY: Rhapsody Films, 1986. VHS.
- Gillespie, John. *Dizzy Gillespie, Charlie Parker – Town Hall*. Performed by Charlie Parker and Max Roach. Recorded June 22 1945. Uptown, Vinyl LP.
- Hawkins, Coleman. *Coleman Hawkins With Ben Webster – The Big Sounds*. Performed by Ben Webster and Max Roach. Recorded 1944. Brunswick, Vinyl LP.
- Jones, Jonathan. *The Drums: The Historic and Legendary Jazz Drumming Sessions*. Performed by Jonathan Jones. Recorded 1973. Jazz Odyssey Records, CD recording.
- Thigpen, Edmund L. "Kenny Clarke: Jazz Pioneer." *Modern Drummer Magazine*, Feb. 1984, pp. 16–21.
- University Press, 2011.
- Gottlieb, Danny. *The evolution of jazz drumming: a workbook for applied drumset students*. Ed. Joe Bergamini. Hudson Music, 2011.
- Guarino, Lindsay, and Wendy Oliver. *Jazz Dance: A History of the Roots and Branches*. Gainesville: University Press of Florida, 2015.
- Harker, Brian. "Louis Armstrong, Eccentric Dance, and the Evolution of Jazz on the Eve of Swing." *Journal of the American Musicological Society* 61, no. 1 (2008): 67-121. doi:10.1525/jams.2008.61.1.67
- Harker, Brian. *Louis Armstrong's Hot Five and Hot Seven Recordings*. New York: Oxford University Press, 2011.
- Hill, Constance V. *Brotherhood In Rhythm: The Jazz Tap Dancing of the Nicholas Brothers*. New York City, NY: Cooper Square Press, 2002.
- Hill, Constance Valis. *Tap Dancing America: A Cultural History*. New York, NY: Oxford University Press, 2015.
- King, Zachary A., "A Brief History of Jazz Drumming" (2014). Honors Theses and Capstones. 210. <https://scholars.unh.edu/honors/210>
- Korall, Burt. *Drummin' Men: The Heartbeat of Jazz, The Swing Years*. New York City, NY: Oxford University Press, 2002.
- Morrison, Margaret. "Tap and Teeth: Virtuosity and the Smile in the Films of Bill Robinson and Eleanor Powell." *Dance Research Journal* 46, no. 2 (2014): 21–37. doi:10.1017/S0149767714000266.
- Robinson, J. Bradford, and Barry Kernfeld. 2003 "Webb, Chick." Grove Music Online. 11 Feb. 2019. <http://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-2000477000>.
- Swing and the Lindy Hop: Dance, Venue, Media, and Tradition Author(s): Howard Spring Source: *American Music*, Vol. 15, No. 2 (Summer, 1997), pp. 183-207 Published by: University of Illinois Press Stable URL: <https://www.jstor.org/stable/3052731>
- Spring, Howard. 2003 "Dance and jazz." Grove Music Online. 11 Feb. 2019. <http://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-2000549000>.
- Strickler, Fred. 2013 "Tap dance (USA)." Grove Music Online. 11 Feb. 2019. <http://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-1002252448>.
- Stearns, Marshall Winslow, and Jean Stearns. *Jazz Dance: The Story of American Vernacular Dance*. New York: Da Capo Press, 1968.
- Scherman, Tony. *Backbeat: Earl Palmers Story*. Cambridge, MA: Da Capo Press, 2000.
- Schuller, Gunther. *Early Jazz*. New York, NY: Oxford University Press, 1968.
- Smith, Gareth Dylan. 2014 "Roach, Max." Grove Music Online. 11 Feb. 2019. <http://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-1002257948>.
- Wells, Christopher J. "'Go Harlem!' Chick Webb and His Dancing Audience During the Great Depression." PhD diss., University of North Carolina at Chapel Hill, 2014. Accessed February 7, 2019. <https://cdr.lib.unc.edu/indexablecontent/uuid:ce78982e-1827-4755-b1db-967613ca223b>

### Secondary Sources

- "Bill 'Bojangles' Robinson Biography." *American Memory: Remaining Collections*, Library of Congress. Accessed February 7, 2019. <http://memory.loc.gov/diglib/ihhas/loc.music.tdabio.154/default.html>.
- Brown, Anthony. "Modern Jazz Drumset Artistry." *The Black Perspective in Music* 18, no. 1/2 (1990): 39–58. <https://doi.org/10.2307/1214857>.
- Conyers, Claude. 2011 "Bubbles, John." Grove Music Online. 11 Feb. 2019. <http://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-1002092353>.
- Feather, Leonard. *The Encyclopedia of Jazz*. New York: Horizon Press, 1960. Gioia, Ted. *The History of Jazz*. New York: Oxford

**APPENDIX:**  
**Full Transcriptions**

Here you can find several of the transcriptions that I completed to aid in my analysis and interpretation of Jones' drumming. As usual, 'R' and 'L' refer to right and left stickings, and 'S' instructs to play a sustained, sweeping sound. It was quite difficult to transcribe the solos that were played entirely on the rims; there are oftentimes very few sonic points of reference. I hope that these transcriptions can aid in navigating Jones's solos.

## The Drums: 'Bill Bojangles Robinson'

$\text{♩} = 216$   
*click sticks together*

*Entire solo on rims of drums*

5

9

13

17

21

25

29

33  *R L L R L L L L R L L R L L*

37  *3*

41  *L L R L L R L L R L R L L*

45  *L L L R L R* *R*

49  *L L R L L R L L R L R R L L R L R R L L R R*

53 

57 

61  *R L L R L R L L R L L R L L R L L R L L R L*

65  *R L L R L L R L*

69 

73 

77 

81 *stick clicks* 

85 

89 

93 

97 

101 

# The Drums: 'Eddie Rector'

♩ = 210, ♩♩ = ♩♩

o + o + o + o + o + o + o + o +

Play with brushes!

o + o + o + o + o + o + o + o +

o + o + o + o + o + o + o + o +

o + o + o + o + o + o + o + o +

*Left hand sweeps*

17

21

25 S S S S o > > >

29 S S

33 *S* *S* *S*

37 *S* *S* *S* *S*

41 *3* *52:10*

45 *S* *S* *S* *S*

49 *Sweep quickly with left hand*

53

57 *S*

61

65 *S* *S*

69 *S* *S* *S* *S* *S* *S* *S* *S* *S* *S*

73 *S* *S* *S* *S* *S* *S* *S*

77 *S* *S* *S* *S*

81 *S* *S* *S* *S* *S* *S* *S* *S*

85 *S* *S* *S* *S* *y* *y* *y* *y* *y* *y* *y* *y*

89 *y* *y* *y* *y* *y* *y* *y* *y* *y* *y* *y* *y*

93 *y* *y* *y* *y* *y* *y* *y* *y* *y* *y* *y* *y*

97 *S* *S* *S* *S* *y* *y* *y* *y* *y* *y* *y* *y*

101 *y* *y* *y* *y* *y* *y* *y* *y* *y* *y* *y* *y*

105

109

113

117

121

125

*LH sweep*  
129

*LH shuffle, like sand dance*  
133

137

141



# Bill Robinson in 'King for a Day'

♩ = 220

5

9

13

17

21

25

29

33

37

Detailed description: The image shows a musical score for a percussion instrument, likely a snare drum, in 4/4 time. The tempo is marked as ♩ = 220. The score consists of ten staves of music, each starting with a measure number (5, 9, 13, 17, 21, 25, 29, 33, 37). The rhythm is highly complex, featuring a mix of eighth and sixteenth notes, often beamed together. There are numerous accents (>) and triplets (indicated by a '3' over a bracket) throughout the piece. The notation is written on a single-line staff with a double bar line at the beginning.

41

45

49

53

57

61

65

69

73

77

81

85 *Half-time*



# Shifting the Paradigm: challenging conventions of classical percussion performance and presentation

## *Music has the irresistible power to strike at our head and heart*

Ryszard Pusz

### Abstract

This article challenges the aurally-based conventions of performance and presentation as inappropriate models for percussion concerts. Conspicuous movements of players on and around disparate sets of instruments on stage underscore the visual and intellectual elements of performance, presenting a strong argument for adopting a theatrical mode of presentation. So, the assertion is that a concert presented under a theme, with every element of presentation from program notes, to stage design, music and manner of performance thematically inter-related, could enhance appreciation of the music. I tested the hypothesis in the four concert forms of unaccompanied solo, accompanied solo, percussion ensemble and chamber music, presenting each under a specifically appropriate theme. In the first, used as an example here, I narrate a story of migration, in an unaccompanied solo performance, which reflects the personal nature of the narrative. The theme is reflected in the form of the concert with each piece of music relating to an aspect of the theme, and interpreted in that context, at times through unusual or adapted playing techniques; and incorporating elements of stage design, technology and theatricality. Programs were prepared as powerpoint displays projected onto large screens, which also enlarged details of playing action. New compositions incorporated unusual notational directions and demanded non-traditional playing approaches to further accentuate the migration theme. This study has presented a concert model that demonstrates appropriate principles and practices in line with the expansive, complex, and still evolving percussion instrument family. In doing so it challenges old paradigms of constraining attitudes and practices, to reveal a timely shift in context and practice paradigms that strike at the very heart of percussion's musical, technical, and artistic development.

### INTRODUCTION

#### Rationale

Paradigms of performance in the arts periodically undergo review when entrenched practices are challenged because they no longer serve changing contexts. The elevation of percussion onto the concert stage is one such challenge, and of such magnitude as to demand a re-examination of first principles of concert-giving. So, I asked two questions:

1. What is the purpose of a concert?
2. How can percussion best fulfill it?

Answering the first question - to commu-

nicate ideas, points of view, feelings, to uplift, to inspire, to give enjoyment - determined the need to examine particulars of percussion instruments that impinge on concert-giving. Very obvious movements of playing and set-up of a multiplicity of disparate instruments introduced a pronounced and more theatrical visual element, not present in traditional concert practice. To find a new model I analysed elements of the wider performing arts and use of technology as applicable to modern modes of music enjoyment. As a result, I formulated a model of con-

cert-giving in which these elements are interconnected under a theme. In this context I researched the four forms of percussion concert presentation and decided on an appropriate theme for each.

1. Accompanied solo - *More than Marimba*, one voice among many, with different accompaniments of choir, piano, concert band and digital orchestra

2. Percussion ensemble - *Playing with Style*, styles of musical discussion, with players moving between instruments in set positions rather than moving the instruments

3. Chamber music – *Australian Landscape*, a variety of instrumental sounds to represent disparateness of nature

4. Unaccompanied solo – *From Other Worlds*, journeys taken alone, physical, intellectual and musical.

Videos of each, and their accompanying e-program notes can be viewed on <https://hdl.handle.net/2440/135817>. The research and concerts were conducted and produced at minimal cost to underline the universal applicability of this approach.

In this article I present my arguments

for a new concert model that better demonstrates the musical voice of percussion as a medium of providing a deeper concert experience; and I use the unaccompanied solo form as example.

Classical music concerts traditionally generate intellectual and emotional audience engagement through uninterrupted aural focus on the technical and expressive execution of the music.<sup>1</sup> The instruments, developed and standardised within the western classical tradition, have defined musical roles, and their playing emphasizes an undisturbed and seam-

less visuality to limit distractions from the expressive enunciation of the music. Consolidating this, concerts are typically presented in fixed positions and the unobtrusive dress code is uniform in style and colour. Even with stage presentation modifications the visually smooth performance of intense aural focus, developed in the nineteenth century, remains constant today.<sup>2</sup> Haydn's 'Farewell' Symphony departed from this convention, but was written for a specific purpose to a closed audience and a single occasion.<sup>3</sup>

Percussion concerts have attempted to emulate the accepted model. However, in several pronounced ways, the medium, with over one hundred conspicuous and non-standardized instruments, instrument concepts and beaters,<sup>4</sup> is at variance with a visually seamless, aural-based focus. First, as measured within the precepts set in the classical context, the instruments have limited means of conventional musical expression as shown by their inability to create long sounds or produce differences between *legato* and *staccato* indications essential to music enunciation.<sup>5</sup> This situation also defines the difference in approach and understanding of making music.

Music theory is taught in terms of relative lengths of sound, with melodic and harmonic structures built in that context; and rhythmic flow evolves from that. In other words, rhythm is learned through melody. Percussionists however, elicit music rhythmically, and understand it in relative speeds of articulation. Melody and harmony move in defined units of time, posing a challenge for playing of rubato phrasing and eliciting what is accepted as musicality of performance. This disparity of approach underscores the degree to which percussion is at variance with established classical music convention. And to elicit a broad range of intonation, a large number of percussion instruments are used, creating on stage a prominent and discernible heterogeneity.

This patently obvious visual footprint is even more pronounced through the conspicuous micro and macro-move-

**From Other Worlds**

A migration of people and concepts

Performance: Elder Hall  
University of Adelaide

4th May 2020, 8pm

**From Other Worlds**

*Having Never written a Note for Percussion* James Tenney  
*Waiting for...* Veit Erdmann-Abele  
*Improvisations on Lloyd's Kandian Theme* Ryszard Pusz  
*On The Outer* Ryszard Pusz

1. *Allegro* 2. *Slow, rubato* 3. *Vivace*

*Improvisation B* Ryszard Pusz  
*Variaciones sobre un tema de Yupanqui* Maximo Pujol/R Pusz  
*Recuerdos de la Alhambra* Francisco Tarrega/R Pusz  
*Suite for Snare* Ryszard Pusz

1. *After M* 2. *An if?...* 3. *Scherzando spiccato* 4. *Continuity of Change*

ments of playing actions needed to elucidate the sound. However, the actions, and the singularly particular characteristics of the instruments and beaters do allow for the elucidation of musical expression across a range of textures and tone colours, with each limb able to elicit discrete rhythmic statements. And this range and mode of expression can vary even within a musical phrase. David Morgan's duo for Clarinets and Percussion, *Voyage into Solitude*, for example, asks the percussionist to coordinate all four limbs to play different rhythms on Wind Chimes, Cymbal,

Snare Drum, pedal Bass Drum and Vibraphone, while standing up (see Fig. 1). Both the flexibility offered, and restrictions imposed by this situation again underscore percussion's separateness from established modes of instrumental expressions of music.

Second, depending on the intended compositional effects of each piece, varying musical roles are attributed to the instruments of percussion. Bongos provide one example of the different contextual roles they can play. In Latino pieces they are improvisatory solo instru-

ments played with fingers; they can also provide an *ostinato* accompaniment to denote a folkloric atmosphere or portray a driving rhythmic pulse as in A. Cirone *4/4 for Four*, (Menlo Park CA: Cirone Publications, 1972); in William Kraft's *Suite for Percussion*, (New York: Mills Music, 1963), they play a solo part, with snare drum sticks; in David Morgan's *Concerto for Percussion*, (manuscript 1991), they are simply high membranophones played with sticks, mallets or fingers; in Kent Williams' *African Sketches*, (Cleveland OH: Ludwig Music, 1968), they substitute djembes and as a set of three are played with wooden dowels and fingers.

These two imperatives of conventional music requirements determine that instruments and their positions on stage can change according to the demands of the individual pieces, which, in line with the concert program, then require cumbersome repositioning by players. Such indiscreet and distracting movement forcefully interrupts audience and player concentration, deflecting attention from the music. Significantly it creates a conflict of interest with the visually neutral and seamless aural focus of tradition. Clearly, expressive limitations as well as the visual and aural disharmony of logistical rearrangements are incompatible with classical concert conventions and contexts.

Historically the importation of percussion instruments from other cultures, genres and playing circumstances to convey specific and singular musical effects has worked against the interests of the percussion medium and its music by fostering narrow perceptions that they are substantially mono-tonal.<sup>7</sup> This ill-considered view has unnecessarily defined them in limited capacities resulting in constrained compositional practices and convergent instrument-specific playing approaches.<sup>8</sup> Such flawed perceptions and practices have undermined and bridled a more developed and sophisticated actualisation of the sonic and expressive capacities of the percussion medium. In partial reappraisal of this misperception,

Fig. 1 Morgan, *Voyage into Solitude*, p. 2<sup>6</sup>

percussion concerts and compositions traverse genre-specific boundaries, fusing elements of classical, jazz, world music and rock categories.<sup>9</sup> However, for the percussion medium to fully express its voice and to further the development of its extensive sonic base and discrete expressive capabilities, the perceptual and playing contexts of percussion performance must undergo purposeful change.

It is clear that each of these issues: a non-uniform visual footprint; perceived limitations of expression; visual and logistical distractions; narrow appreciation of instrumental capability; stifling compositional practices and convergent playing approaches, cannot be easily resolved within the limitations of conventional practice models and traditional performance contexts. Therefore, it is timely to present a new and discrete model of practice and concert context appropriate to the percussion medium. To incorporate these elements into a seamless performance it is necessary to envisage the concert as an integrated whole, comprising the three elements of performance and presentation – sonic, visual and, stemming from these, subliminal.<sup>10</sup> In such a concert the instruments contribute as sound sources beyond their traditional contexts; the individual pieces of music develop a continuity of focus; and the presentation is centred on experientially engaging with the audience. At the same time, the music retains primacy of position.

So the concert is conceptualized around a theme. Each piece of music reflects it, each instrument is used in a manner that is appropriate to it; and the theme enhances appreciation of the music and manner of its realization. Tested in a reformed framework of principles and practices the proposed model acknowledges the intricacies of the percussion medium and highlights its actual and evolving visual, sonic and expressive capabilities and potentials. The form of concert execution, unaccompanied solo, was integrated into specific cross-disciplinary presentation features of stagecraft meth-

odology, purposefully designed to target enhanced intellectual and emotional engagement of the audience and player. In a fresh context suited to the complexity of percussion, this model challenges the limitations of conventional paradigms. This new performance and presentation model, in its transitional shift towards a more relevant and authentic realization of the percussion medium, challenges the restricting, linear, aural-based paradigms of the past (see Fig. 2).

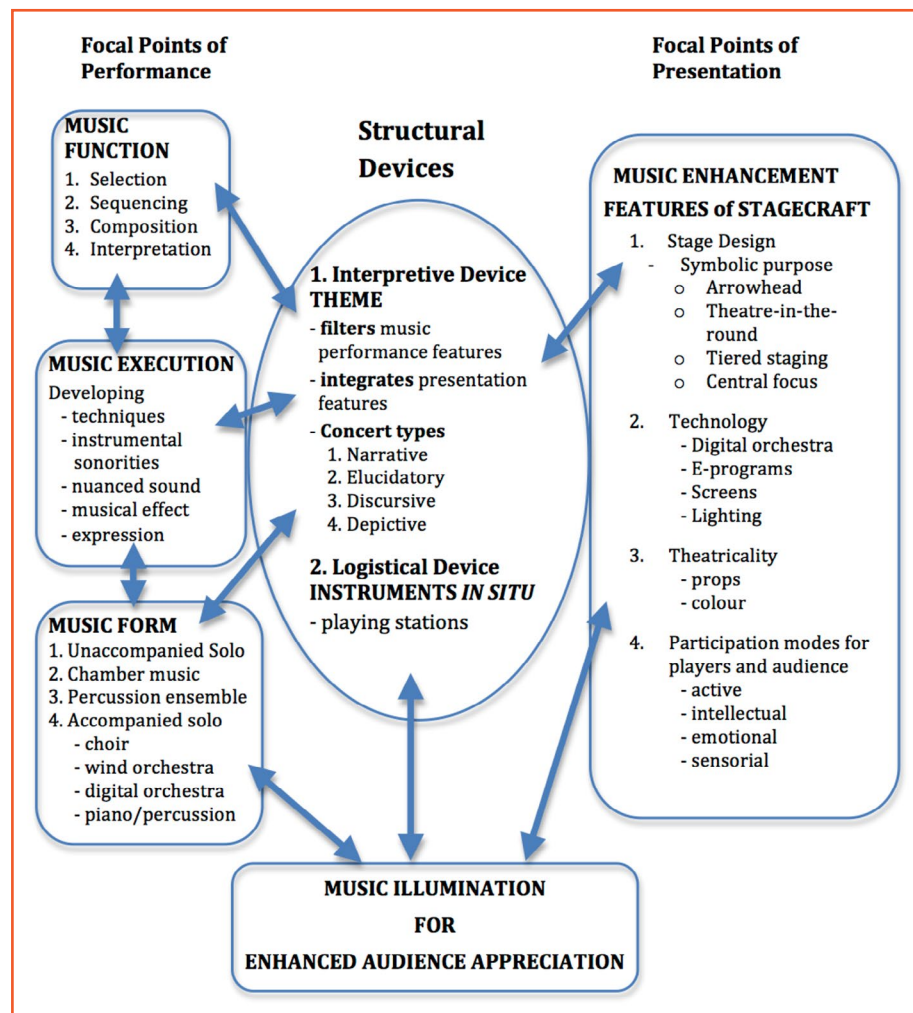
### Theoretical Framework of thesis concert model – principles and practices

#### 1. Theoretical background

To establish a working model, it was necessary to look to an area of the arts that also contains multiple levels of complexity in performance and presentation.

Only such a model could provide a suitably adaptable set of principles. This conviction led me to the dramatic arts area of performance. It too has non-standard variables of function, form and execution; and during the twentieth century underwent a series of changes as the mode of presentation became less stylised, a direction determined by three theatrical reformers, Bertolt Brecht (1898-1956), Konstantin Stanislavski (1863-1938) and Jerzy Grotowski (1933-1999). Dramatically confronting entrenched attitudes and approaches in their field, their revolutionary ideas and practices addressed the compelling need to advance their stagecraft in radically new directions. The musically unique voice of percussion can also be potentially actualized with equally assertive thinking and challenging approaches, and percussion resonates

Fig. 2 Concert performance and presentation model



closely with the essence and spirit of the practices of the renowned theatre reformers.

Brecht established what he called dialectical theatre to engage audiences more closely with the action on the stage.

We need a type of theatre which not only releases the feelings, insights and impulses possible within their particular field of human relations in which the action takes place, but employs and encourages those thoughts and feelings which help transform the field itself.<sup>11</sup>

This direction for transforming percussion performances has been shown in the different conception of the snare drum in Colgrass' *Six Unaccompanied Solos*, the playing guidelines on cymbal in Kraft's *English Suite*, and dramatic encircling of the audience by Les Percussions de Strasbourg's performance of Xenakis' *Persephassa* (Salabert, 1969) in 1978 and in Adelaide Percussions' performance of Cary's *Rivers* (Australian Music Centre, 1987) in 1987.<sup>12</sup> The question does arise nevertheless as to whether the musical intent was conveyed to the audience by the performance alone. Inclusion of the individual pieces in a concert themed for continuity, enhanced with theatrical elements and explained to the audience, could intensify the experience for both audience and players without relegating the music to incidental accompaniment. Incorporating screen technology, purposed lighting and color, movement and instrument placement all affect theatrical events. They would also impact on the enjoyment and appreciation of musical events.

To understand the process of making the music aesthetically engaging, I investigated the Stanislavski Method with a view to adapting its principles to percussion performance. As is well known, the goal of the system was to 'portray believable, natural people on stage', which involved answering certain questions.<sup>13</sup>

What would I do if I were in this situation?

How can I exhibit true-to-life human nature and still project enough to be heard?

How can I observe other people to capture their physical traits and personalities?

What is my motivation in performing this particular move?

How can I feel the actual emotion being expressed?<sup>14</sup>

Adapting this to music performance, the goal becomes one of portraying the intent of the music. The questions, though relevant to the theatre do not directly apply to music. Music is more abstract and the questions need to reflect that, so I devised and formulated the following set of questions.

What is the intent of the music (the piece, the phrase, the note)?

What technique(s) and playing approaches can best exhibit or reflect this intent?

What is my motivation in evincing this sonic character, in using this action or gesture?

How can I be convinced to convincingly portray the intent (the emotion, the musical flow)?

The answers to these questions are specific to each piece, but should nonetheless follow the principle of enhancing its music. Stravinsky already alluded to this type of approach.

The sight of the gestures and movements of the various parts of the body producing the music is fundamentally necessary if it is to be grasped in all its fullness...why not follow with the eye such movements as those of the drummer, the violinist, or the trombonist, which facilitate one's auditory perceptions?<sup>15</sup>

Applying this approach to percussion performance impels a reassessment of the role of choreography of both mallet and body movement, and their place in technical approaches and musical effect. The Stanislavski System was continued and further developed by exponents of physical theatre such as Jerzy Grotowski, an innovative theatre director and theorist, who delved more deeply into the practice of acting, saying 'The actors should have time for research...to plant the seeds of creativity.'<sup>16</sup> This accords

with the approach needed for performing percussion, as the lack of standardisation in the medium places extra demands on the player to try various approaches to achieve the desired musical result. Different beaters, techniques and sometimes even different instruments have to be explored, and decisions made in terms of seamless flow of action or depiction of musical intent.<sup>17</sup> Grotowski elaborates on the concept, saying,

Rehearsals are not only a preparation for the opening, they are for the actor a terrain of discoveries, about himself, his possibilities, his chances to transcend his limits. Rehearsals are a great adventure if we work seriously.<sup>18</sup>

The 'terrain of discovery' is a compelling encapsulation of the process of practice and rehearsal. For example, most percussion playing is based on using alternate sticking (R L R L etc). But this is not compulsory and any move away from this standard produces different results; and continuing changes to technique and playing approaches delay the development of standardised methods of playing.<sup>19</sup> Consequently to reach a particular interpretation of a piece entails a degree of experimentation and research into sticking patterns, beaters and physical and expressive approaches.

## 2. Theoretical Framework of Principles and Practices

Based on three strategic principles and their associated practices, I aimed to thematically integrate performance and presentation elements into a comprehensive concert model that amplifies the beauty and potentials of the medium (see Fig.2). The principles of percussion music articulation:

1. Accord equality of status to the interdependent elements of performative and presentation values together with their structural device of theme in the articulation of the music;

2. Re-envisage the instruments beyond traditional and limited perceptions of sonority; and

3. Re-appraise the connections with au-

dience.

The first principle accords equality of status to three elements of music elucidation: performance, presentation and theme. With a primary structural role, the theme drives the performance and presentation of the concerts. It acts to interpretively filter the music performance values of function, execution and form, simultaneously integrating these with their presentation features of music enhancement (see Fig.2). They include: stagecraft application of *in situ* instrument placement and symbolic stage design; current and pioneered digital orchestra technologies; theatrical elements; re-appraised visual elements of technique; and new player and audience intellectual and emotional participation modes. These multiple subliminal and conscious focal points of engagement contained in this framework, afford both players and audience access to the visual and aural complexity of the percussion medium and the beauty of its music. This conceptualisation challenges the linear approaches of aural-based conventions that are less appropriate to percussion.

The second principle re-envisages performance function and execution roles of both the music and instruments (see Fig. 2) confronting current composer-authority and customary playing manners inherent in conventional paradigms.<sup>21</sup> Flexibility in interpretation moves stereotypical limitations beyond mono-tonal expressions, contributing to more intimate engagement with the music and the percussion medium. This expansion of the distinctive sonic and expressive

capabilities of the instruments and techniques of execution challenges traditional restricted compositional practices and convergent playing approaches. Furthermore, the form of performance integrated with theme and enhancement features also takes on symbolic values where appropriate, (see Fig. 3) a feature not considered in normal contexts.

The third principle recognises the multi-faceted cognitive dynamic of contemporary audiences.<sup>22</sup> Moving away from customary passive listen-dominant modes, this design invites unusual interactive and personalized proximity to the music through several modes of physical and psychological engagement (see Fig. 2) intended to facilitate whole-person visual, intellectual, emotional and sensorial stimulation towards a deeper music engagement and experience. To realise the principles of the performance and presentation framework, this concert is based on practices appropriate to the theme (see Fig. 3).

***From Other Worlds - migration  
of people and ideas  
A voyage to a destination is  
also a voyage inside oneself  
-Laurens van der Post<sup>23</sup>***

### Rationale

Migration is a universal process and experience embracing the complex physical, psychological and conceptual movement of both people and ideas towards new enhanced destinations.<sup>25</sup> In the process, confrontations to former lifestyles and orthodox modes of expression natu-

rally arise. Integrating the parallels of a percussion concert with the nuances of a human migration was informed by my own journey from Germany to Australia in 1950.<sup>26</sup> The narrative reveals selected challenges to conventions that people confront as they travel inwardly or externally towards new life destinations. Furthermore, in processing this journey, the enduring capacity of both humans and performance conceptualisations to modify, adapt and innovate in new directions is revealed in the music interpretations, inventive technique development and instrument use. The coordinated concert plan uses cross-disciplinary elements to highlight these departures from tradition and includes symbolic devices on a purposeful stage, lighting and screen technology, as well as e-program notes (see Figs. 3 and 4). Migration as portrayed here is also a presentation of the movement of new ideas from often-heretical beginnings to acceptance into normality of life.

The totality of this unorthodox presentation of melded text and music aims to generate a coherent, blended performance for enhanced music and narrative appreciation. It was envisaged within sonic, visual and subliminal elements of performance and presentation. Careful consideration was given to sounds obtainable from placement on the instrument, beaters used and manners of execution. Visual impressions from actions, movement, staging, lighting, dress and colour enhanced the presentation of the music. Subliminal enhancements, not always appreciated on first presentation were reinforced through the use of technology. This multi-dimensional approach sets up clear challenges to the less nuanced performance-dominant concert paradigms of the past (see Fig. 4).

### Concert Design 1. Narrative background

The decision of a migrant to depart a troubled homeland for a better life may superficially appear to be straightforward. However, the reality carries a multiplicity of physical and psychological com-

Fig. 3 Conceptual relationship of theme, musical form and enhancements		
Theme	Concert form and purpose	Music Enhancements
<p><b>Narrative - A Musical Tale of Migration:</b> a story of personal historical migration towards new lands and destinations, while enunciating the shared experience of our inner psychological journeys. Also as metaphor for this research study of new music directions.</p>	<p><b>Unaccompanied solo:</b> to highlight the essential solo nature of all our journeys - inner and outer -toward new material and psychological destinations. To also highlight the solo element of technical music research.</p>	<p><b>Staging - a symbolic arrow-head:</b> to depict direction of travel <b>Screens:</b> images and information on aspects of migration; magnifying details of playing <b>Lighting:</b> a wash of colours to emphasise tone and atmosphere of images, symbolism and music</p>



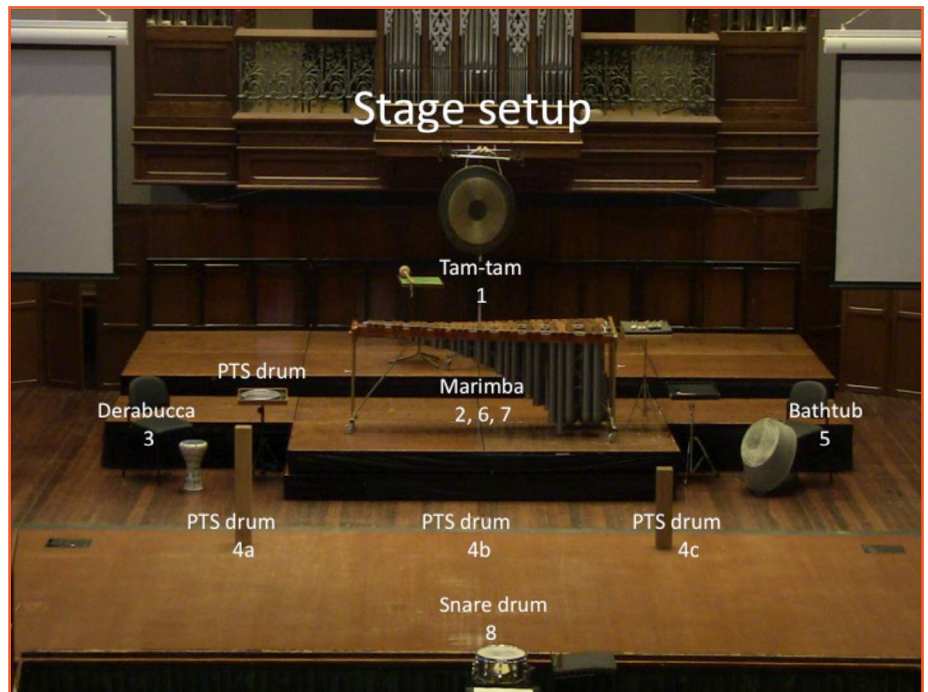
**Fig. 4 Table of thematic inter-relationships:**

*From Other Worlds – migration of people and ideas: Unaccompanied Solos*

Piece/Composer	Instruments / Profile / Time codes	Enhancements	Screens: images of migration and enlargement of playing e-program
<i>Having Never Written a Note for Percussion</i> James Tenney	Tam-tam: the metal is symbolic of the ship, the playing action is symbolic of the ocean waves 00 00:00	Blue light increasing with crescendo	
<i>Waiting for...</i> Veit Erdmann-Abele	Marimba: two melodic lines represent emigrants and those left behind. 00 19:56	Verdant Green light of Europe	
<i>Improvisations on a Kandian Theme</i> Ryszard Pusz	Derabucca: a glimpse of unknown landscape and cultures 00 24:04	Blue light of ocean	
<i>On The Outer</i> Ryszard Pusz	Hand drum: the sense of 'being on the outer' of their new society 00 28:41 Allegro 00 28:41 Slow 00 30:52 Vivace 00 32:51	Red light - Australian heat	
<i>Improvisation B</i> Ryszard Pusz	Bathtub: starting life again relies on improvisation 00 35:21	Gentle light of repose	
<i>Variaciones sobre un tema de Atahualpa Yupanqui</i> Maximo Pujol/R Pusz	Marimba: an allegory of sadness 00 40:05	Purple light of emotions	
<i>Recuerdos de la Alhambra</i> Francisco Tarrega/R Pusz	Marimba: a musical walk through beauty 00 48:20		
<i>Suite for Snare</i> Ryszard Pusz	Snare drum: unusual techniques to show migrants' different approach to life 00 54:05 After M 00 54:05 An if?... 00 57:24 Scherezando 01 00:31 Continuity 01 02:58	4 lights of green blue red full reflecting the journey	

plexities of orientation to new realities.<sup>27</sup> Sequencing typical aspects of a journey to a foreign land, this concert narrative also alludes to the multifarious origins, cultures, and ideas that underscore uneasy relationships between new arrivals and local inhabitants. Differences in appearance and behaviours, incoherent accents or idiomatically peculiar language, all exemplify the polarity of cultural divergence implied in the title *Other Worlds*. Similarly, unusual playing approaches, such as bouncing a drumhead on a plinth and using fingers to play rim shots, could also be seen by traditionalists as absurd performance ideas from *Other Worlds*.<sup>29</sup> However, both these areas of deviation and their challenges to accepted paradigms are essential features on the path to enhanced outcomes of new integrated lifestyles or performances. This spectrum of the narrative was paralleled in the mu-

Fig. 5 Stage setting of tam-tam, marimba, snare & PTS drums, derabucca and bathtub; numbers refer to the concert order of the pieces



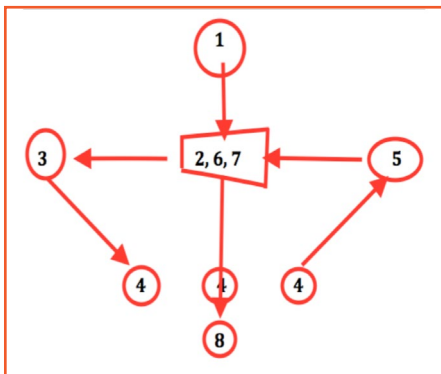
sic of the concert and challenged the linear contexts of tradition.

## 2a. Stage design - symbolic representation of new destinations

In contrast to a typical horizontal stage arranged on a predictable linear axis,<sup>30</sup> this multi-levelled and symbolically purposed stage was designed to illustrate and develop complexities characteristic of migratory and music movements towards new destinations, and with an aesthetic view of the playing. Pivotal to the depiction of the migration narrative - the journey, feelings of isolation, nostalgic past connections, and a persistent need to improvise and adapt to the new life - is the stage representation of new destinations. Designing an arrowhead shape with *in situ* playing stations, and a triangular tip delineated by the seated playing positions of derabucca, bathtub and snare drum, created a representational illustration of entry to a new land for both humans and music. This stage design and instrument set-up is fundamental to the symbolism of this concert's thematic and music presentations (see Fig. 5).

Four tiers of staging, including the auditorium floor at audience level, granted the concert performance descending levels of operation. Player movement in a sequential, downward progression traced the arrowhead through the discrete music stations, illustrating both visually and aurally the migratory experience. This perceptible time-continuum tangibly

Fig. 6 Pattern of player's physical movement on stage



moving from distant past at the rear to present and future in the audience foreground, defined the context of life for the migrant and progress of the new musical idea.

Physically descending towards the audience and into the symbolically immersive and psychological realm of perspectives, attitudes and emotions, the stage design also represented the move into depths of thought attending the development of new musical ideas and the very experience of migration (see Fig. 6).

The design of this multi-tiered stage also facilitated a clearer view of the instruments and their playing details as well as the vital visual separation of each piece of music. This permitted a range of significant musical and symbolic gestures that afforded appreciation of each music offering as a discrete event. Simultaneously, the sequence of music stations, by their inter-connections to the central thematic purpose, added psychological weight to the performance of the theme. This uncommon stage and music representation symbolically challenged more orthodox linear and pragmatic modes.

## 2b. Stage Design - symbolic migration of ideas

The setup of the stage also showed two intersecting lines - from the back to the front of the stage and across the stage (see Fig. 7). Viewing the lines left-to-right and

upstage-to-downstage by individual instrument, instrument type, and method of playing, identified the developments in material and technique. It is symbolic of the way ideas travel and change, through constant feed and intersection of divergent influences.<sup>31</sup> Personally exemplifying the depth of this process were the improvisations played on the very bathtub my parents and I brought with us from Germany. Moving the performance incrementally closer to the audience potentializes a more personalized, even sympathetic response to the migration theme and its music. It illuminates the profound observation of philosopher and writer Laurens van der Post, that, 'a voyage to a destination is also a voyage inside oneself' (see Footnote 24).

This unusual arrangement of intersecting instruments, materials and method of playing was given further focus on stage with the marimba deliberately positioned in the centre of the cross. Being the only instrument made from living material,<sup>32</sup> it symbolised the vitality of life in the development of all ideas.

Furthermore, this portrayal of the process of human and ideas exchange in the concert illuminated how both conventional techniques of execution and approaches to interpretation also undergo modification, adaptation and innovation. At the centre point was the aim of finding ways to percussively elicit long sounds

Fig. 7 Diagrams of intersections

Fig. 7 Diagrams of intersections		
<b>Instruments:</b>		
Derabucca	Tam-tam Marimba Snare Drum	Cast-iron bathtub
<b>Instrument type:</b>		
Skin	Metal Wood Skin	Metal
<b>Method of playing:</b>		
Hands	Mallet Mallets and Hand Mallets, Brush and Hands	Hands

to convey various thematically related moods, a management of technique that is contrary to the capability of percussion instruments. As evidenced in the concert, migratory elements such as ocean waves, continuity of existence, improvisation, appreciation of beauty and alternative approaches were all represented by illusory long sounds. These innovations musically reflect the process of inter-cultural exchange, expanding the technical spectrum of percussion through unorthodox modes of playing while demonstrating specific elements of the migratory experience.

### 3. Use of technology

Challenging conventional modes of presentation and approach, a broader scope of narrative and music reinforcements was sourced from outside the percussion discipline. Use of green, blue and red coloured stage-lights, in sync with the music, paralleled the landscapes, seascapes and inner-scapes of migrants' physical and psychological journey.

Visually linking music and narrative, images of theme and stage design on raised screens created an air of pre-concert expectation. Further images used throughout the concert literally brought the audience closer to both texts. Left-hand screen magnification of playing was counter-balanced by the right-hand screen's notational details and stark images of migratory realities.<sup>33</sup> An e-program of these images and program notes augmented this further by being accessible before, as well as during, the concert.

Harmonising music and technical enhancements offered deeper emotional and intellectual appreciation of the personal and shared issues of physical, psychological and intellectual migration, reinforcing the unconventionality of this performance mode.

### The Concert

A concert of unaccompanied solos was chosen to represent the fundamentally solo nature of migration, as each individual adapts in their own way to the

changing circumstances and contexts. As a constant symbolic reference to my personal sea voyage, whose features are shared with infinite numbers of nameless migrants, a maritime cap was worn throughout the concert.

Our journey under austere conditions on the American troopship, *USAT General W. G. Haan*, determined the music choice of an apparently simple American composition by James Tenney, entitled, implausibly, *Having Never Written a Note for Percussion* (see Fig. 8).

I deliberately commenced with this piece to confront predictable notions of what properly constitutes percussion music and presentation. Furthermore, musically and symbolically facilitating the solitary decision to migrate, the singu-

lar note played by one hand while facing away from the audience, illustrated the personal ramifications of going forward amongst strangers. And by not facing the audience, it moved the focus to the instrument and sound, further denoting the intensities of thought and action that presuppose significant change and new developments. It was an apt metaphoric symbol for migrant and music adaptation and innovation; and was added extra poignancy by the fact that the work was written on a postcard – so it too underwent a migration to concert realization.<sup>34</sup>

Deepening the metaphor, using controlled striking against the tam-tam's amplitude elicited surges of sound reminiscent of the buffeting ocean waves that physically and emotionally test those on

Fig. 8 Conditions of travel from Europe, post-WW2

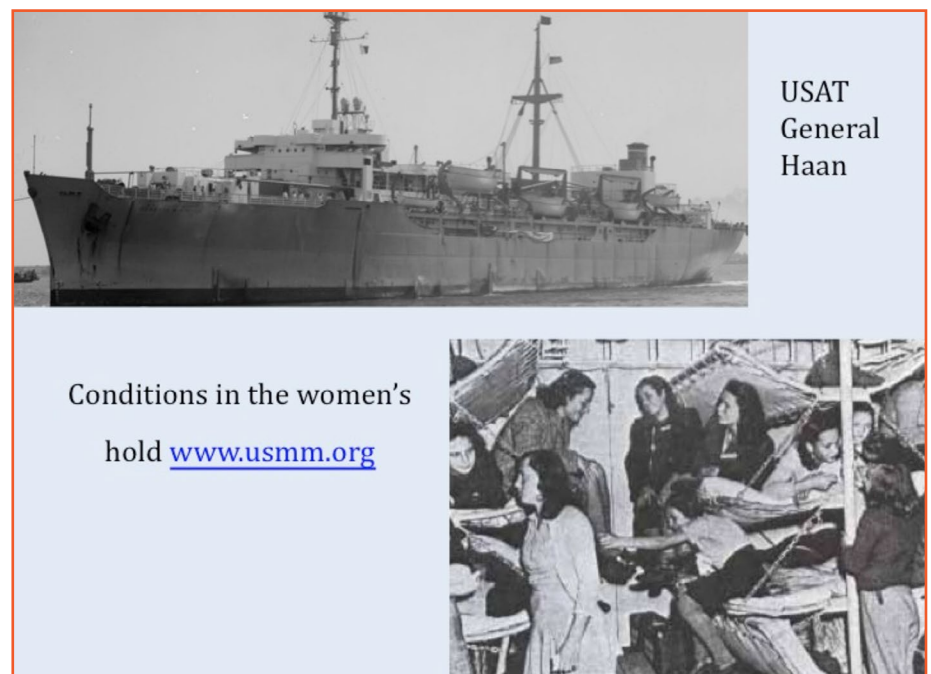
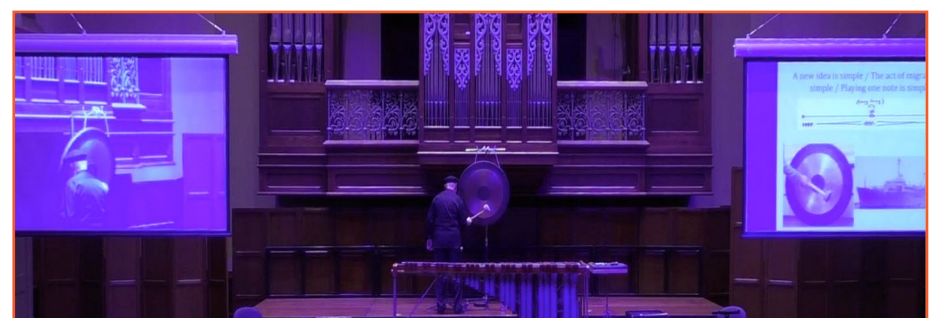


Fig. 9 Staging of *Having Never Written a Note for Percussion*  
<https://www.youtube.com/watch?v=XmSWs35wCLA>



the arduous journey of new ideas and approaches. Beginning extremely softly within a normality of life the intensity of the *crescendo* subjugated all else to the sound, just as the transitional journey became the sole life of the people on the ship to the exclusion of the past and even of the future. It also symbolised the increasing obsession that envelops innovators of non-traditional ideas, before they return to a new type of normal, external existence as indicated in the *diminuendo* to void. Washing the stage in oceanic blue-tinted light together with screened images of the actual ship I came out on,<sup>35</sup> the tam-tam and an example of the mu-

sic on the right-hand screen synchronous with the playing on the left, heightened parallels for music engagement (see fig. 9)

Performing down one tier stage level, Erdmann-Abele's *Waiting for...*, (see Fig. 10) reflected the descent into migrants' mental preoccupation with the past they were leaving,<sup>36</sup> the present they were enduring and the hoped-for future, illustrated clearly with screen-images. Serving as metaphor for these psychological challenges was the marimba, with its very history,<sup>37</sup> structure and appearance of elongated inter-connected pieces of rose-wood timber. It symbolised the wooden crates and boxes constructed to contain

possessions or even, like my father experienced, as temporary living accommodation, highlighting migrant enterprise in overcoming resource scarcity.<sup>38</sup> This *Farewell* movement, written in the same vein as Beethoven's *Sonata*, op.81a, was played under green light symbolising a verdant Europe, dichotomising past and future in the contrapuntal movement of two melodic lines of emigrants and those left behind. The harmony of their combination signified their resolution.<sup>40</sup>

The purposeful title, *Waiting for...*, implied hope of a fresh beginning, expressed through liberal interpretations of tempo, pauses, dynamics, and mallet and body

Fig. 10a Staging of *Waiting for...* enlargement of action, left screen



Fig. 10b Staging of *Waiting for...* playing

Fig. 10c Staging of *Waiting for...* Details about the migration (right screen)

<https://www.youtube.com/watch?v=XmSWs35wCLA>

anticipating a new future in lands unknown

<p><b>From...</b></p> <div style="text-align: center; padding: 5px;"> <p>Camp supply store</p>  </div>	<p><b>To...</b></p> <div style="text-align: center; padding: 5px;"> <p>Australian landscape</p>  </div>
---	---

Fig 11a: Staging of Improvisations on Lloyd's Kandian Theme – enlargement on screen



Fig 11b: Staging of Improvisations on Lloyd's Kandian Theme – playing



Fig 11c: Staging of Improvisations on Lloyd's Kandian Theme – enlargement on screen – information on migration progress  
<https://www.youtube.com/watch?v=yDkZsfmIcAc>



movement. The soft dynamic of the final statement clearly showed that the focus of emigrants and those left behind had moved in their different directions, potentially reflecting the disjunction of life at the crossroads.

The ship's passage through the Middle East, unveiling glimpses of unknown

landscapes and cultures, was musically depicted in *Improvisations on Lloyd's Kandian Theme* (see Fig. 11). The Sri Lankan, or Kandian, rhythms were played on a Middle Eastern derabucca. In keeping with the spirit of migrant extemporization, innovative hand-drumming techniques revealed various sonorities of the drum

while improvising around the original rhythms.<sup>41</sup> Playing *tremolos* with fingers and nails of one hand emulated the 'long sounds' of normal, everyday activity, set against specific rhythms of cultural contexts. And displaying on screen the detail of synchronous playing and images of the journey allowed the audience further in-

sights into the intricacies of the music.

Arrival in a new land is confronting. Described on the large screens, a sense of estrangement felt by newcomers is partially caused by the alien categorisation on the arrival documentations<sup>42</sup> as well as uneasy temporary accommodations,<sup>43</sup> before settlement in suburbs of ethnic concentrations.<sup>44</sup> From the outset everything is foreign, including food, culture and the language of communication.<sup>45</sup> This detachment from hopes and dreams creates a sense of 'being on the outer' of their new society,<sup>46</sup> an attitude that prevails throughout the process of adaptation and assimilation. The use of red stage lighting contrasted to the previous gentle green, underscored this alienation and reflected the new Australian climate and its summer heat, so contrasting to the verdancy of European homelands.<sup>47</sup> My piece *On The Outer* (see Fig. 12), exhibited this sense of being 'on the outer' of accepted societies of both humans and percussive technical expression. I used unconventional improvised one-stick, finger and bouncing techniques on a drumhead not attached to a shell, while moving across the stage to separate music stations. This exclusion from tradition was made obvious in musical close-up on the left screen, playing against images of administrative arrival documents and camp life on the right.<sup>48</sup>

The extent of these departures from orthodox techniques illustrates advanced directions of playing, such as intricately pressing fingers onto the drumhead for degrees of dampened sounds,<sup>49</sup> and using different parts of the beaters on the rim as well as the head. Finger and fingernail sounds extended the range of playing possibilities and rhythmic variations, including thumb rolls and one-handed tremolos played against other rhythmic phrases.<sup>50</sup> Representing a serious departure from orthodox paradigms, these progressive techniques and their uncommon applications paralleled with the nuances of adaptation necessary for migrants to assimilate into a new life.

Starting life again in a new context re-

Fig. 12a Staging of *On the Outer*: three playing positions across the stage



Fig. 12b Staging of *On the Outer*: examples of notation

**On The Outer** Ryszard Pusz

1-handed roll

1 drumhead, 1 beater

Fig. 12c Staging of *On the Outer*: arrival document and placement

<https://www.youtube.com/watch?v=JNY6SycTPdg>

**New beginnings**

Arrival document extract

5. Occupation	HOUSEWIFE
6. Date of Birth	14.5.20
7. Sex (Male or Female)	F.
8. Place of Birth	POL/WARSZAWA
9. Nationality (as shown in Passport)	DISPLACED PERSON

Ex-army camp accommodation

lies on improvisation, epitomised in the materials and extempore rhythms of my *Improvisation B* (see Fig. 13).<sup>51</sup> Adapted beaters and playing approach magnified on the left screen and the image of a small plain bathtub on the right implied a broad context of improvisatory necessities. The spontaneous rhythms paralleled the delights in drawing a bath; with gliding handles of keyboard mallets across the surface of the tub facilitating the smooth long sound of watery relaxation - a fleeting moment of respite from the demanding life outside. This was reinforced by the accompanying vision of floral beauty under a gentle light.

In a context of imperfect understandings of new language and customs, migrants gather to "relive past lives, and help each other make sense of this new world."<sup>52</sup> This transitional state of adapta-

tion to new surroundings is exemplified in the translations of Pujol's *Variaciones sobre un tema de Atahualpa Yupanqui* and Tárrega's *Recuerdos de la Alhambra* (see Fig. 14), from guitar to marimba. Innovations borne of an improvisatory approach of non-traditional technique and choreographed body and mallet movement reflected these cross-cultural interactions. They were elaborated in images onscreen, backwashed by the purple lighting of quieting emotions accompanying a sense of progress made in adaptation.

Translating the guitar direction *tambora* in the *Variaciones sobre un tema de Atahualpa Yupanqui* to marimba required expansion of a newly-instituted technique; using mallet shafts melodically and in combination with the mallet head to elicit contrasts in both texture and volume.<sup>53</sup> This change of dynamic balance from the guitar version presented a new perspective of the music and its deeper nuances of emotion.<sup>54</sup>

[https://www.youtube.com/watch?v=B-vWT5IQD\\_8Y](https://www.youtube.com/watch?v=B-vWT5IQD_8Y)

The one-handed *tremolos* in Tárrega's *Recuerdos de la Alhambra* exemplified the overcoming of obstacles by viewing the problem from different perspectives,

which then open broader possibilities of action. Experimentation and consequent extended application of the LRRR technique introduced a smoothness of continual musical line, reflecting beauty in gentleness.<sup>55</sup>

By their presence, migrants introduce obvious and sometimes confronting change into society, paralleled in the technical approaches far removed from traditional snare drum traditions. In my *Suite for Snare* (see Figs. 15 - 19),<sup>56</sup> played at the very front of the stage in close proximity to the audience, the casual nature of integration was symbolized by being seated on the floor. The several unorthodox and possibly confronting techniques, and largely uncategorized nuances of sound were counter-balanced by the light-hearted spirit of its music and thematic intent.

Enhanced by stage-lighting customised to reflect each of the four movements of the journey, it commenced with its green European beginnings, blue oceanic travel, purple emotional adaptation, and full lighting of acceptance of both the new land and ideas. These aspects of the journey were symbolised in various playing styles of long sound, often produced by

Fig. 13a Staging of *Improvisation B* – enlargement on screen



Fig. 13b Staging of *Improvisation B* – playing



Fig. 13c Staging of *Improvisation B* – image of the tub and commentary

<https://www.youtube.com/watch?v=ygljyTbFiO8>

## Improvisation

Set tub in kitchen by the woodstove for a cheap, warm bath.

Fig. 14 Staging of Variaciones (L) and Recuerdos (R)  
<https://www.youtube.com/watch?v=VH9hIP5b148>



Ideas are formed or changed through contact across cultures

**Tambora**

Guitar

**Tambora (w/ shafts of beaters)**

Marimba

## Recuerdos de la Alhambra

F. Tárrega arr Pusz



Guitar - notes sustained by fluttering finger strokes

Marimba - create sustain using one mallet

Fig. 15 Staging of Suite for Snare – preparatory information on screen as player walks to front of stage

### Migration and research

- challenge traditional norms
- forge new directions

-e.g. Develop a one-handed roll



Fig. 16a Staging of Suite for Snare – After M: playing



Fig. 16b Staging of Suite for Snare – After M: notational information

**1. After M**  
Extending sounds of the snare drum

drumhead

rim

*After M* makes a multiple piece of a single drum, and extends the sound sources of the drum.

stick on stick while rolling

Fig. 17a Staging of Suite for Snare – an' if...? – playing

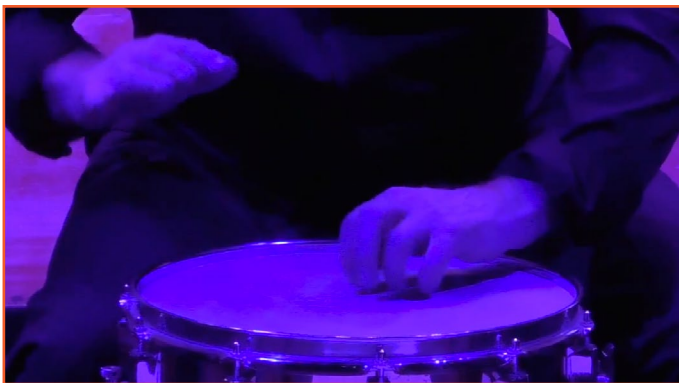


Fig. 17b Staging of Suite for Snare – an' if...? – notational information

**2. an' if...?**

An' if we have no sticks, what is left?  
A silent drum? ... Of sound bereft?  
Or can fingers and nails in retrospect,  
give a more subtle tone to this narrative?

Positions

Actions

scrape

rolls

Fig. 18a Staging of Suite for Snare – scherzando spiccato: playing



Fig. 18b Staging of Suite for Snare – scherzando spiccato: notational information

**3. scherzando spiccato**

muffled

open

Scherzando spiccato explores sounds of various strokes produced by brush and fingers

glide

swish

rimshot

Fig. 19a Staging of Suite for Snare – continuity of change: playing



Fig. 19b Staging of Suite for Snare – continuity of change: notational information

<https://www.youtube.com/watch?v=giuipEvXSiw>

### 4. Continuity of Change

*Continuity of Change plays with the idea that long sounds on the drum are an illusion created by playing different types of rolls that also create different levels of tension.*

Active stick

*tip of stick*

*neck of stick*

*shaft of stick*

Resting stick

a one hand action, in reflection of the essentially solo-nature of human and music journeys towards advancement.

This positive note of conclusion, enlarged on the left screen and elaborated in the images of drum, notation and beaters on the right, suggests the development of new perceptions and interpretations of what constitutes the migration journey, as well as the development of music performance and presentation. Moreover, for the audience, seeing a 'genuine migrant' performing in front of them tangibly humanizes the theme from both musical and individual perspectives.<sup>57</sup>

### Conclusion

Evaluating suitability of past conventions for new and changing contexts often generates shifts in paradigms toward more appropriate concert designs. A deeper intellectual and emotional appreciation of the music was made possible through elucidation of a broader range of instrument sonorities and nuanced expressions, under-pinned by a conceptualized framework of concert principles and practices. This thematic integration of performance elements of music function, form, and execution with cross-discipline music enhancements of stage de-

sign, technology and theatricality enables a more appropriate voicing of percussion's complexity. Emerging from this study, and fundamental to any transitional design, possible future directions are offered for consideration.

Dovetailing the physical and psychological experience of migration with paralleled music is a significant move away from linear concert performance and presentation. The trajectory of the journey was conveyed in the selection of thematically apt pieces sequenced for development of emotional intensity. Progressing from the fundamental but radical decision to depart from the old paradigm of life, the concert commenced with Tenney's *Having Never Written a Note for Percussion*, through to the substantial journey in *Improvisations on Robert Lloyd's Kandian Theme*, survival adaptations being undertaken in *Improvisation B* to, finally, the sense of contribution made to the new life as shown in the *Suite for Snare*. Insights into the psychological dimensions of the inner journey are found in the anticipation of Erdmann-Abele's *Waiting for...*, the emotional isolation depicted in *On The Outer* and the grievous sense of loss heard in Pujol's *Variaciones sobre un tema de Atahualpa Yupanqui* and Tárrega's *Recuerdos de la Alhambra*.

Reflecting experiences of a migrant journey, the music introduces new and unusual playing techniques of modified, adapted, and improvised approaches, which speak to the resourcefulness of the migrant circumstance and of music experimentation. Using innovative techniques, such as the one-handed roll variations to identify subtle tensions of cultural disparity, exemplifies possibilities of a broader scope of applications of sonic nuance in areas such as theatrical mood enhancement. And while heightening appreciation of a greater musical potential of the instruments, the levels of technique development also provide deeper insight into the adaptive features of migration. Injecting a personal note into the performance as both participant and exponent of narrative and music also

created an empathetic context to which the audience could more privately relate. This significant purposing of technical execution for expressive effect challenges the tacit acceptance of instrument-specific technique limitations. Timbral and interpretive depths thus unveiled demonstrate an expansive range of instrumental sonorities through original use of beaters and techniques. In this, they bring to light the capabilities of the instruments to reflect mood and intent enlarging the context for more visceral responses to the music. Assertively questioning limiting attitudes and practices of tradition invites further research that embraces progressive evolution away from more static and audience-distancing practices of performance.

This approach does however question the authority unthinkingly conferred to composers. Their inadequate knowledge of percussion instrumental and technical intricacies further complicates the shortcomings in conventional percussion notation to clearly indicate musical intent. This impedes the deeper expression of the music. Challenging the validity of uncritically accepting deficient compositional directions, this study embraced flexibility of interpretation to express musical intent. It included broader sonic creation, technique re-evaluation, improvisational latitude and use of mallet choreography, demonstrated throughout the concert. Tackling compositional limitations of tradition resulted in more nuanced instrumental expressions and playing effects in keeping with a deeper understanding and revelation of the pieces. To develop this ultimate aim of music, critical refinements to notational directions and interpretive parameters are required. This demands greater awareness and more precise knowledge of the instruments' sonic nuances and expansive means of expression. And for performance efficacy it also requires upgrading the system of notational scribing in a manner specific to percussion, illustrated in *On the Outer*.

In that spirit of challenge to progress from old restrictive forms into more ap-

propriate works, I also composed pieces with specific thematic relevance. To elicit the concert theme, nuances of musical expression were explored that highlight new instrumental parameters of unusual sonorities with their very different playing methods. For example, the emulation of percussively elusive long sounds in *Suite for Snare* illustrates a non-traditional use of beaters in a one-hand playing action that thematically reflects innovative approaches migrants bring to a society. As the final piece in the concert entitled *From Other Worlds - migration of people and ideas*, this unusual form of execution resonates with the manner of playing the opening piece, *Having Never Written a Note for Percussion*, thereby representing a cycle and endpoint in that particular research. It also demonstrates that more developed instrument appreciations result from the practice of cross-fertilising techniques with thematic content. Crossing boundaries of historically accepted playing approaches to convey thematic meaning catalyses a greater intensity of focus to evoke particular musical effects of artistic expression. It is a relationship bypassed in conventional thinking.

Furthermore, music enhancement features amplify the thematic context. Incorporating a purposed symbolic stage design with concrete information on the e-program, alongside playing details, an aesthetic view of the instruments, and imagery magnified on elevated screens, enhances both the intellectual and emotional feeds for the audience. Subliminal suggestions provided by sympathetic coloured lighting and stage movement also enhance the presentation without detracting from the music. Its intent is to assist in accessing the complexity of percussion sounds and music by providing multi-disciplinary feeds to inform, enhance or illuminate the music mood, content, or aesthetic. Features are designed for music effect, commencing before and continuing throughout each concert. So, to pique a level of audience anticipation, performance and presentation information is introduced in pre-concert down-

loadable e-programs containing images and program notes expressly related to theme. During the concert, relevant images and magnified playing details displayed on large screens intensify the connection between music, player and audience, further augmented with purposed lighting. For instance, a darkened stage opens the performance of *From Other Worlds - migration of people and ideas*. A controlled increase in intensity of the blue light of ocean migration gradually unveils the long, suspenseful tam-tam note of Tenney's *Having Never Written a Note for Percussion*, played with one hand while facing backstage. Merging music and presentation, this dramatic opening highlights the solitary nature of such experience, offering a personalised and different perspective on the universality of migration. As well, enlargement of the music-action on one screen and images of notation and physical migration on the other induce reflections on the import of both sound and theme. This melding of performance and presentation encourages the player to embrace a broader interpretation and appreciation of the music in its thematic context while also inviting the audience to expand their understanding of both. Providing a variety of intellectual and emotional inducements that confront the more passive performance-centric paradigms of tradition, this interactive model opens a path to deeper appreciation of the music.

Across all levels of the concert creation in this research study: conception, organization, performance and presentation, the introduced role of theme as a structural device resulted in an unexpected level of congruency. Conceived primarily to filter and interpret the music of performance as well as structurally integrate with its presentation features, its presence facilitated unanticipated levels of corollary. As the underlying concert design reference-point, theme: *informed* all music performance decisions of concert focus in the selection and sequencing of music compositions, the purposed exploration of sonic nuance and technical expres-

sion, and the form of player participation; *directed* organization of the introduced stationary *in situ* instrument placement to develop musical and thematic intensity with uncluttered sightlines for both audience and players; and brought *cohesion* and *continuity* to the music performance and its presentation enhancement features to assist audience grasp of the percussive medium in its complexities.

Use of theme also adds another layer of import that penetrates all aspects of music outcome. It sits very delicately in a symbiotic relationship where music serves unfoldment of theme, and, most profoundly, where theme uplifts the music. Linking theme and music for mutual enhancement and illumination is not a consideration in traditional contexts. In keeping with the complexity of the percussion medium, this unusual filtering and integrating device forcefully driving concert structure and design, also contains valuable, even exponential benefits to its ultimate intention to elevate the music.

The concert also revealed the limitations of performance spaces designed specifically for acoustic clarity within their general venue aesthetic. With both presentation and performance considerations paramount in percussion concerts, several venue and staging improvements would address the hindrances. A plain stage, with white or black walls and the ability to block out daylight, would neutralize visual distractions and bestow the disparate look of the instrumentation with presence as a centerpiece of interest. This visually more suitable space would also allow for theatrical elements of thematic design to be developed. Contributing directly to music engagement and appreciation, flexible tiering for both stage design and audience seating would better facilitate the synchronization of performance platforms with the symbolic and content gestures of theme. This would improve audience view of the instruments and important playing action, thus visually, aurally, and aesthetically enhancing the music. Redesigned music stands with

small lips to accommodate their flat positioning without impeding reading of the music would further improve audience and player sightlines. Finally, a sophisticated lighting rig and several purposed on-stage cameras would illuminate and magnify player performance thereby advancing thematic mood and atmosphere. Overall, these venue and staging upgrades would considerably expand the visual and psychological engagement possibilities with percussion music. And future considerations could include technological improvements to develop more sophisticated telecasting of the event to remote or incapacitated audiences or, as at present, COVID-19 medically isolated households.

This study offers a transitional concert model in the constantly evolving paths of performance directions, creating a more accommodating and appropriate context for percussion's complexities. Shifting the paradigm in both principle and practice towards concert models more suited to percussion impels a reinvigoration of the medium. Emanating from this study, a number of directions emerged for further research into the discrete percussion medium.

First, essential to advancing the medium is the creation of a detailed, orderly and cross-referenced audio-visual archive to capture and systematically document percussive sonic and expressive capabilities. This would greatly enhance the informal, *ad hoc* documentations in non-peer reviewed percussion journals and on media platforms such as YouTube and individual websites. Audio-visual digitization of the timbral range of each instrument concept accompanied by explanatory notes and examples of musical expression and effect would reveal the breadth and depth of instrumental sonic potential and possible playing and compositional applications. Second, developing a purposed notation system in an expanded software application will enable greater accuracy of compositional direction and player interpretation. Beyond the scope of this study, these develop-

ments are essential to a medium evolving into broader practice paradigms.

This model has further implications for players. Extending performance techniques beyond limitations of instrument-specific approaches and historically accepted perceptions, involves expansive use of beaters, fingers and instruments in purposeful exploration of the percussion medium towards deeper music revelation. Player re-orientation away from presentation-neutral paradigms of the past impels consideration of visual performance elements of mallet and body-choreography for music enhancement. These collective progressions in attitude and practice towards a greater realisation of technical and visual elements of the medium suggest a reassessment of instrumental teaching practices and the current pedagogical focus in tertiary conservatoriums.

As well, to deepen appreciation of the music from this heterogeneous and elaborate instrument family, more research is needed into approaches of presentation in percussion concerts. This will yield better understanding of interrelationships between design features, and technological and theatrical enhancements for visual, intellectual, emotional and sensorial engagement. Integrating all these performance and presentation elements thematically provides a more focused, coherent and directional approach for enhancing the concert and its music. The model presented in this research is but one, and other pathways can also be pursued to progress the evolution of the percussion medium. An open-minded curiosity to perceive, research and action the instruments in their broader sonic and playing dimension while simultaneously challenging outmoded and inappropriate conventional notions of practice are requisite to further development and advancement of the medium. Creating a concert paradigm consistent with the complexities of percussive sound and music expression, also strongly suggests the need for a re-appraisal of concert rationale and practice frameworks in the

continual search for a more intense appreciation of the medium and its music.

Finally, it is appropriate for percussion to give further research emphasis to the changing nature of contemporary audiences whose media exposure may require more wide-ranging stimulation than is provided by listen-dominant modes of conventional concerts. Capturing the potential of whole-person engagement to simultaneously access visual, technical and aural stimulation can determine new levels of concert design and provide deeper intellectual and emotional appreciation of the nuanced sound-base unique to percussion music.

This study has demonstrated a concert model that addresses appropriate principles and practices in line with the expansive, complex, and still evolving percussion instrument family. In doing so, it challenges old paradigms of constraining attitudes and practices. By thematically integrating performance function, execution, and form with presentation enhancements of purposed stage design, technology, theatricality, and interactive participation, a deeper appreciation of both music and theme are potentialized. For the wider percussion community, this evolving shift in concert paradigm implies the need for an active interrogation of conventional misperceptions of inhibited instrument voice and expression. To actualise a revitalised performance and presentation context requires the conceptual and practice shift into fresh paradigms appropriate to its distinctive music, instrumentation, and voice. Amplifying the opening words of the concert, this performance-led research of the percussion medium has demonstrated a timely shift in context and practice paradigms that strike at the very heart of its musical, technical, and artistic development.

## END NOTES

1. Even the word 'audience' stems from the Latin 'audire', meaning 'to hear'. J. Pearsall, B. Trumble eds., *The Oxford English Reference Dictionary*, 2nd ed. Oxford: Oxford University Press, 1996, p. 88.
2. This maintenance of traditional models of concert presentation is seen in the comparison of these examples of concert offerings 1945-2020. Very little has changed over many years. Adelaide Symphony Orchestra 2019 concert season: [https://www.aso.com.au/app/uploads/2019\\_Season\\_Brochure.pdf](https://www.aso.com.au/app/uploads/2019_Season_Brochure.pdf), Australian String Quartet 2020 concert season <https://asq.com.au/on-demand-2020/> E. M. Michael, (1996). *Professional ensemble performance of contemporary music in Pittsburgh, Pennsylvania, 1945 to 1995* (Order No. 9727830). ProQuest One Academic. (304256412). <http://proxy.library.adelaide.edu.au/login?url=https://www-proquest-com.proxy.library.adelaide.edu.au/docview/304256412?accountid=8203>
3. <https://www.charlottesymphony.org/blog/story-behind-haydns-farewell-symphony/>
4. Many of the instruments are also concepts of the sound. For example, snare drum is thought of an instrument. But with basic drum sizes of 3", 5", 6.5", 8" and 15" depths it should more properly be considered as a concept of snared drums. Similarly, the term snare drum sticks covers a wide range of sizes, weights and design details. Beyond the scope of this study, this idea of instrumental and beater concepts is worthy of further investigation to deepen understanding of the medium.
5. The uncritical ear accepts a series of short even sounds as the effect of a long sound; and body and mallet movement produce a visual impression of differentiation between *legato* and *staccato*.
6. David Morgan, *Voyage Into Solitude*, manuscript in the author's collection, 1983
7. For example, using castanets to convey a Spanish flavour, snare drums to denote a military sense, tam-tams to add volume, ignores the reality that each one of these instruments comes in a variety of sizes and registers and as such could more properly be understood as concepts of those sounds.
8. Standard orchestration tutors only provide limited, and not always accurate, descriptions of the instruments and their uses. G. Jacob, *Orchestral Technique* (Oxford: Oxford University Press, 1970), 64-71 and W. Piston *Orchestration* (London: Victor Gollancz, 1969), 296-323. The convergent playing approach is evident in standard teaching manuals such as G. Cook, *Teaching Percussion* (New York: Schirmer, 1997), and R. Holloway and H. Bartlett, *Guide to Teaching Percussion* (Dubuque IA: W. C. Brown, 1971).
9. For example, Eric Bryce's *Concerto for marimba/vibraphone* calls for jazz improvisation against a Latino accompaniment in a classical form.
10. Subliminal messages support the sonic and visual elements in ways that may not be obvious on first hearing or viewing but are significant in conveying the intent. Playing an ostinato figure with one hand to suggest urgency, or wearing a maritime cap and using blue light to reinforce the idea of a sea voyage are two such examples.
11. Brecht *A Short Organum for the Theatre* paragraph 35 (p. 7) [http://tenstakonsthall.se/uploads/139-Brecht\\_A\\_Short\\_Organum\\_for\\_the\\_Theatre.pdf](http://tenstakonsthall.se/uploads/139-Brecht_A_Short_Organum_for_the_Theatre.pdf) accessed 9 April 2017.
12. In Adelaide, Australia the performance by Les Percussions de Strasbourg was on specially constructed stages above the audience to emphasize the spatialisation of the piece; Adelaide Percussions set up in 4 corners of the hall with 4 speakers in between to enclose the audience 'within the river'. However, both could have been enhanced by greater use of stagecraft such as lighting.
13. W. Bradford, *The Stanislavski System Elements of the Russian Master's method*, <https://www.thoughtco.com/stanislavsky-system-acting-method-2712987> accessed 19.01.2018.
14. *Ibid*.
15. Stravinsky, *Chronicle of My Life*, Trans. from French. (London: Gollancz, 1936), p. 122.
16. Stravinsky, *op.cit.*, p. 117.
17. This is discussed at length in Puszt, R. 'Percussion performance: challenges of the medium, technique and repertoire', MPhil Dissertation, University of Adelaide, 2016
18. J. Grotowski, *From the Theatre Company*, 118.
19. Aside from the obvious variations of RLL or LRR stickings, it is also worth considering the musical effect of extended one-hand ostinati.
20. The significance of multi-focal purpose

- was recognised by the renowned architect J. Mordaunt Crook. 'As all the pleasures of intellect arise from the association of ideas, the more the materials of association are multiplied, the more will the sphere of those pleasures be enlarged.' J. Mordaunt Crook 'Style in architecture: the historical origins of the dilemma', *The Question of Style in Philosophy and the Arts*, (Cambridge: Cambridge University Press, 1995), 75.
21. Composer-authority is implied in the notational directions of the printed score, but like the written script of a play relies on the performer to express the depths of meaning within it. This is also analysed in M. Doğantan-Dack 'Artistic Research in Classical Music Performance', *Parse* (Gothenburg, Sweden, Faculty of Fine, Applied and Performing Arts, University of Gothenburg, 2015) accessed August 2019 <http://parsejournal.com/article/artistic-research-in-classical-music-performance/27-39>.
  22. Contemporary audiences are accustomed to an array of fast-moving stimuli through the exponential impact of technological and communication advances over the last thirty years. (Will W.K. Ma, Yuen, Park, Lau, Deng, eds., *New Media, Knowledge, Practices, Multiliteracies: HKAECT 2014 International Conference* DOI 10.1007/978-981-287-209-8, 2015, accessed 19 July 2020.) Particularly evidenced during the COVID-19 pandemic ravaging the world in 2020, multiple technology platforms are utilised for more intensified personal, business and corporate virtual communication such as zoom for seminars and webinars, YouTube conferencing, podcasting and increased uses of a variety of social media. The public's greater ease and more frequent inter-facing with these platforms have relaxed the attitudes to, and expanded styles of, dispensing and receiving information. This behavioural change validates the alternative concert modes proposed in this research.
  23. L. Van der Post, *Venture to the Interior*, (New York, William Morrow and Co., 1951), 51.
  24. A. Mckeown, 'Global Migration, 1846-1940', *Journal of World History*, Vol. 15, No. 2 (Jun., 2004), 173, University of Hawaii Press, <http://www.jstor.org/stable/20068611> accessed 7 May 2018.
  25. A musical example of this confrontation was Handel's inclusion of snare drum in opera, a small change, jarring in its initiative but eventually acquired a broader acceptance in the orchestral milieu. 'W. Gooding, "Messiah." Opera Canada, vol. 57, no. 3, (Fall 2016), 59. Gale Academic OneFile, <https://link-gale-com.proxy.library.adelaide.edu.au/apps/doc/A481518366/AONE?u=adelaide&sid=AONE&xid=40f52e99>, accessed 15 Aug. 2020.
  26. We were part of the post-World War 2 mass emigration from Europe
  27. These include: pressure to accurately fulfil administrative requirements across homeland and future contexts; the unrelenting need to improvise and adapt; controlling grief at loss of both family and culture; handling the overwhelming sense of isolation; apprehension of future difficulties; and the joy of reaching journey's end. For example, living in a camp replenished by Red Cross parcels, in a part of Germany occupied by American troops, and keeping in contact with Polish State and Church authorities while determining the requirements of migration to Australia, presented unique challenges.
  28. E. Kunz, *Displaced Persons: Calwell's New Australians*, (Canberra, Australian National University Press, 1988), 163-169.
  29. W. Bagehot, *Physics and Politics*, (Kitchener Ontario, Batoche Books, 2000), 92.
  30. A predictable axis places derabucca and bathtub together on one side of the marimba, using only one chair. Snare and PTS drums played in a standing position could balance the set-up at the other end of the marimba. Tam-tam, usually on a low stand, could be at either end.
  31. The process of exchanging ideas through these intersections was visually and aurally illustrated in the playing of the PTS drumhead. A clear head symbolised this, showing both sides of the playing action. An instrument of skin and metal was played with wood and skin using atypical techniques while moving across the stage. The action moved from a skin instrument (derabucca) played with skin (fingers) to playing with wood (mallet handles) on metal (bathtub).
  32. The 'skin' of the drums is today predominantly made of plastic, though still referred to by the old name of skin.
  33. Magnifying the playing action also introduces a more aesthetic view of the instruments. This is markedly at odds with a traditional presentation that, from an audience perspective, gives prominence to resonators and stands.
  34. The work was the last of Tenney's postal pieces – a series of works with minimal playing directions and written on postcards, between 1965 and 1971.
  35. *USAT General Haan*. Courtesy, U.S. Naval Institute, Annapolis, MD.
  36. Kunz, *Displaced Persons*, 33-34
  37. Pusz, *op. cit.*, 42-54
  38. My father constructed a wooden crate to hold our clothes, but as they were lost in a fire it only contained a small cast-iron bathtub, the sum total of our possessions. It was later used to hold grain for the chickens my parents raised, then contained wood for the fire and currently houses a collection of my percussion instruments. To save money my father also lived for a few months in a tar-papered wooden crate (used at the time to transport new cars) on the property they bought while the house was built, illustrating migrant enterprise to overcome survival challenges. That crate finally morphed into a fence, the uprights of which my brother and I used as goalposts for our football (soccer) games.
  39. Beethoven's *Sonata op. 81a* was written on the departure of the Archduke Rudolph, on May 21 1809. The three movements are often labelled *The Farewell*, *The Absence* and *The Return*. Ironically, *Waiting for...* was written for me following a concert series in Germany – the *Farewell* for my leaving, a 'musical migration' back to Australia, the *Absence* for my time there and *Return* for my return to Germany to play the work in its entirety in a Musica Nova concert in Reutlingen.
  40. My mother also recalled the moment of departure from Napoli with the words, 'They [people onshore] threw streamers to us and only then did I realise that we were

- leaving behind a life, and I cried'
41. The improvisation was three-fold. The original piece by Lloyd was written on one line for, in his words, 'any resonant drum', with the assumption that it would be played with sticks. Suggesting a two-line notation to depict contrasting phrases, and playing it with fingers was a departure from convention and an improvisational one, as I had no certainty that the transition would be successful. That it worked gave me the impetus to improvise round the themes.
  42. *Displaced Person* was the description stamped on entry documents of migrants on the Government's refugee program; nationality was in accordance with information on the *Arbeitsbuch* (workbook) from Germany, as most did not have a passport; and women were all classed as housewives. National Archives of Australia, <https://recordsearch.naa.gov.au/SearchNRRetrieve/Interface/SearchScreens/BasicSearch.aspx>. The *Arbeitsbuch* and related documents are housed in the South Australian Migration Museum, <https://migration.history.sa.gov.au/>.
  43. Accommodating families in army barracks without internal walls saw blankets hung up as temporary means of separation instead of being used for warmth. Complaints led to a rectification of the situation.
  44. J. Collins, *Migrant Hands in a Distant Land*, (Sydney: Pluto Press, 1991), 38-42.
  45. *Displaced Persons* (DPs) were housed in camps and moved to different sites. Teachers at the camps called the form of German that became the unofficial common language 'DP Deutsch', Bruce Pennay, *Calwell's Beautiful Balts*, (Albury-Wodonga: Parklands, 2007), 8.
  46. Collins, *Migrant Hands*, 208-11.
  47. We disembarked in Melbourne on a hot summer's day, 21st February 1950.
  48. A transparent drumhead was deliberately chosen to show the extent of difference of playing technique, reflecting disparities of culturally attuned approaches to life's issues.
  49. Notationally indicated with a "+" and preceded by a number indicating number of fingers used to dampen the sound.
  50. Thumb rolls are effected by sliding a damp or rosined thumb over the surface of the head or in this case, rim. The second movement is played wearing thimbles on the left hand. Another version without thimbles is evident in the attachment. See 9. Addendum in PART A, Folder1, *From Other Worlds - migration of people and ideas*.
  51. Lacking goods and easy access to them necessitates improvisation.
  52. Collins, *Migrant Hands*, 39, 209, 194-96.
  53. Initiated by noted Japanese marimbist and composer Keiko Abe, *Voice of Matsuri Drums*, for marimba, 1992. Tokyo: Xebec Music Publishing, and American composer Joseph Schwantner, *Velocities*, 1990, New York: Schott Helicon Music Corporation.
  54. Pujol's *Variaciones*, subtitled *Lloran las ramas del viento, Crying of the Branches in the Wind*, expresses the pervading atmosphere of the music. Yupanqui's (real name Héctor Roberto Chavero) aim was 'to portray human beings as they weep, love and contemplate the world'. This sub-title defines the work as an allegory of sorrow M. Osorio, *Atahualpa Yupanqui The Unesco Courier*; Paris Iss. 9, (Sep 1992), 2.
  55. Used in a different way by well-known jazz drummer Buddy Rich on drums, it was not generally understood until explained in 2014 by Dennard <http://drummagazine.com/one-handed-roll-a-buddy-rich-trick/> accessed September 2018. It is still only rarely used on keyboard percussion. See R. Pusz, *Percussion Performance*. 100-105.
  56. Coming out of the military tradition the snare drum is generally accepted as a tri-tonal concept of snares on, snares off, and rim, played with wooden sticks. These four movements display it in another light. *After M* makes a multiple piece of a single drum and extends the sound sources of the drum - after Milhaud (M) who composed the first multi-percussion concerto, and Michael (M) Colgrass, who after studying with Milhaud charted a new direction for the snare drum).  
*An' if...? answers my question:  
An' if we have no sticks, what is left?  
A silent drum? ... Of sound bereft?  
Or can fingers and nails in retrospect,  
give a more subtle tone to this narrative?*
  - Scherzando spiccato* explores sounds of various strokes produced by brush and fingers. *Continuity of Change* plays with the idea that long sounds on the drum are an illusion created by playing different types of rolls that also create different levels of tension.
  57. Having a clear view of the drumhead added a level of aesthetic and intellectual stimulation.

## LIST OF SOURCES

### Articles

- Alperson, P, "Musical Time" and Music as an "Art of Time", *The Journal of Aesthetics and Art Criticism*, Vol. 38, No. 4 (Summer, 1980), pp. 407-417
- Archinal, B. S, 'Having never listened to a note of percussion: critique and exploration of new and old models for percussion performance practice'. UC San Diego: <http://www.escholarship.org/uc/item/2rc9c62f>, (2010)
- Auzet, R, 'Gesture-following devices for percussionists', *Trends in gestural control of music*, Paris France: IRCAM, (2000)
- Biggs, M, Buchler, D. 'Eight criteria for practice-based research in the creative and cultural industries' *Art, Design & Communication in Higher Education* Volume 7 Number 1 Article. English language. doi: 10.1386/adche.7.1.5/1, (Intellect Ltd 2008)
- Boas, F, 'Percussion Music And Its Relation To The Modern Dance', *Making music for modern dance: Collaboration in the formative years of a new American art*, Ed. Katherine Teck, New York, NY, U.S.A.: (Oxford University Press, 2011), pp. 204-7
- Broughton, M. and Stevens, C, 'Music, movement and marimba: an investigation of the role of movement and gesture in communicating musical expression to an audience', *Psychology of Music* UK (April 2009) pp. 137-153
- Brustle, C, 'Timekeepers - Sound Artists - Drum Machines: Studies of Notation and Performance in Contemporary Music for Solo Percussionist', *Twentieth-century music*, Vol 6 No 1, (2009), pp. 63-81
- Candy, L. and Edmonds, E, 'Practice-Based Research in the Creative Arts: Foundations and Futures from the Front Line', *Leonardo*, Volume 51, Number 1, (2018), pp. 63-69

- Chaffey, G, 'Sticking patterns-a musical approach', *Percussionist*, (Winter 1972), pp. 47-49
- Chaib, F, 'Three gestural perspectives for a percussive performance: technical, interpretative and expressive approaches', *Janeiro-junho*, 2013, *Per musi: Revista acadêmica de música*, pp. 159-181, Brazil. URL: [http://www.musica.ufmg.br/permusi/port/numeros/27/num27\\_cap\\_14.pdf](http://www.musica.ufmg.br/permusi/port/numeros/27/num27_cap_14.pdf)
- Clarke, E, 'Empathic entanglements: Sound and Motion in Contemporary Discourse' DOI: 10.4324/9781315271996-12, (November 2017), ch.11
- Cohen M. A, Horowitz, T. and Wolfe, J, 'Auditory recognition memory is inferior to visual recognition memory', [www.pnas.org/cgi/doi/10.1073/PNAS.0811884106](http://www.pnas.org/cgi/doi/10.1073/PNAS.0811884106), (2008), pp. 6008-10
- Cook, M, Coker, C, Bugbee, F, Huber, A., 'Postural sway of percussionists: a preliminary investigation', *Medical Problems of Performing Artists*. 19.1 (Mar. 2004), p. 34. <http://www.sciandmed.com/mppa/>
- Cook, N, 'Between art and science: Music as performance' *Journal of the British Academy*, 2, 1-25. DOI 10.5871/jba/002.001, Posted 17 March 2014.
- Cutts, C. 'Sight Over Sound', *The Strad*, (October 2013), p. 27
- Dennehy, Donnacha, 'Interview with James Tenney', *Contemporary Music Review*, Vol. 27, (2008), pp. 79-89
- Doğantan-Dack, M, 'Artistic Research in Classical Music Performance', *Parse* (Gothenburg, Sweden, Faculty of Fine, Applied and Performing Arts, University of Gothenburg, 2015) <http://parsejournal.com/article/artistic-research-in-classical-music-performance/> accessed August 2019
- Findlay, R. & Filipowicz-Findlay, H. 'The 'Other Theatre' of Wrocław: Henryk Tomaszewski and the Pantomime', *Educational Theatre Journal*, Vol. 27, No. 4, (Dec. 1975), pp. 453-65
- Fujinaga, I, Tzanetakis G, Kapur A, Tindale, A R, 'Retrieval of percussion gestures using timbre classification techniques' *ISMIR 2004: 5th International Conference on Music Information Retrieval—Proceedings: Universitat Pompeu Fabra*, October 10-14, 2004. Pompeu Fabra University (Audiovisual Institute), 2004 Barcelona, Spain <http://ismir2004.ismir.net/proceedings/p098-page-541-paper235.pdf>
- Herring, S, 'Developing the Independent Roll on Marimba', *Percussive Notes* Vol 39 No 4, (August 2001), pp. 46-49
- Huang, A, 'Percussion theater: The drama of performance', *The Cambridge Companion to Percussion*. Cambridge, England: Cambridge University Press, (2016), pp. 128-42
- Janta, H, Lugosi, P, Brown, L, Ladkin, A, 'Migrant networks, language learning and tourism employment', [www.elsevier.com/locate/tourman](http://www.elsevier.com/locate/tourman), (2012), pp. 431-9
- Johnson, K, 'A Fine Line: Style or Philosophy?' *New York Times*, (Jun 24, 2011), p.33
- Kartomi, M, J, 'Body percussion performance techniques in male and female song-dances in Aceh and the links around the Indian Ocean and the Mediterranean', *Musik—Raum—Akkord—Bild: Festschrift zum 65. Geburtstag von Dorothea Baumann*, Bern, Switzerland: Peter Lang, (2012), pp. 517-34
- Kirkpatrick R, 'Style in Performance' in K. Meredith (Ed.), *Reflections of an American Harpsichordist: Unpublished Memoirs, Essays and Lectures of Ralph Kirkpatrick*, Boydell & Brewer. doi:10.1017/978178204946,3016, (2018), pp. 142-50
- Koehne, S.P, 'You Have to be Pleasing and Cooperative - Australia's Vision Splendid for Post-World War Two Migrants', *Traffic: A vision splendid*, no. 5, Melbourne, (2004), pp. 27-45
- Lai, C, and Martin, C, 'Strike on stage: A percussion and media performance', *Proceedings of the International Conference on New Interfaces for Musical Expression*. Oslo, Norway: Universitet i Oslo/University of Oslo, (2011), pp. 142-3
- Langlois, A. J, 'Human rights and stranger narratives', *Australian journal of human rights*, Volume 9, (2003) - Issue 2: Symposium: 'The rights of strangers', pp. 47-68
- Larrick, G. H, 'Creativity and discipline in percussion music', *NACWPI journal*, 63(1) (Fall, 2014), p. 13
- Lemont, A, 'Emotion, engagement and meaning in strong experiences of music performance', *Sempre: Psychology of Music*, (2012), pp. 574-94
- Maher, C, 'James Tenney on Intention, Harmony and Phenomenology — A Different View of the Larger Picture', *Music Works Issue* 77, (2000), pp. 1-9
- Malloch, S, Stevens, K, Broughton M, 'Music, Movement And Marimba: An Investigation Of The Role Of Movement And Gesture In Communicating Musical Expression To An Audience', *Proceedings of the 9th International Conference on Music Perception and Cognition (ICMPC)*. Published by: Bologna: Bononia University Press, (2006), pp. 137-53
- Manning, P. and Trimmer, T, 'Migration Theory and debates', *Migration in World History*, Taylor & Francis Group, (2012), ProQuest Ebook Central, <http://ebookcentral.proquest.com/lib/adelaide/detail.action?docID=1046904>, Accessed 5 September 2018, pp.191-205
- Mckeown, A. 'Global Migration, 1846-1940', *Journal of World History*, Vol. 15, No. 2 (Jun., 2004), p. 173, University of Hawaii Press, <http://www.jstor.org/stable/20068611>
- Mehr, S., Scannell, Winner, 'Sight-over-sound judgements of music performances are replicable effects with limited interpretability' *PLOS ONE*, <https://doi.org/10.1371/journal.pone.0202075> (September 2018), pp. 108
- Miura, M, Mito, Y. and Kawakami, H, 'Motion analysis for emotional performance of snare drums using a Motion Averaging Method', *The Journal of the Acoustical Society of America*, (April 2012), Vol.131 (4), pp. 1-6
- Miura M, Schoonderwaldt E, Altenmüller E, 'Is emotional drumming realized in both sound and movement?' *Proceedings of the International Symposium on Performance Science*, 2013. Association Européenne des Conservatoires, Academies de Musique et Musikhochschulen, Bruxelles/Brussel, Netherlands, (2013), pp. 577-82
- Miura M, Kawakami, H, Mito, Y, 'Expression Of Basic Emotion On Playing The Snare Drum', *Proceedings of the International Symposium on Performance Science 2011*. Association Européenne des Conservatoires, Academies de Musique et Musikhochschulen, (2011), Bruxelles/Brussel, Netherlands, pp. 45-50
- Pusz, R. 'Percussion performance: challenges of the medium, technique and repertoire', MPhil Dissertation, University of Adelaide,



2016

- Osorio, M. *Atahualpa Yupanqui*, The Unesco Courier; Paris Iss. 9, (Sep 1992), pp. 1-6
- Palmer, C. 'Music Performance', *Annual Review of Psychology* 1997, Vol. 48, pp. 115-38. Downloaded from [www.annualreviews.org](http://www.annualreviews.org)
- Reich, S. 'Some thoughts about performance', *Contemporary Music Review* Vol 7 No 1, (1992), pp. 39-50
- Schutz, M. and Manning F. 'Looking beyond the score: The musical role of percussionists' ancillary gestures', *Music theory online*. XVIII/1 (April 2012), [http://www.mtosmt.org/issues/mto.12.18.1/mto.12.18.1.schutz\\_manning.html](http://www.mtosmt.org/issues/mto.12.18.1/mto.12.18.1.schutz_manning.html), pp. 1-14
- Smolicz, J. J. 'From Migrant Country to Multi-cultural Nation', *The International Migration Review*, Vol. 31, No. 1 (Spring, 1997), pp. 171-86 accessed 9 August 2017
- Thompson, W. F. Graham, P. Russo, F. 'Seeing music performance: Visual influences on perception and experience', *Semiotica* 156-1/4, (2005), pp. 177-201
- Torrence J. 'Percussion Theatre: Mastering Inter[nal] disciplines', Artistic Research Fellowship Program, Norwegian Academy of Music, (2015-18), Norway
- Tsay, C. 'Sight over sound in the judgement of music performance' *Proceedings of the National Academy of Sciences of the United States of America*, (September 3, 2013), vol. 110, no. 36, pp. 14580-85
- Vosmer, T. 'Indo-Arabian stone anchors in the western Indian Ocean and Arabian Sea', *Arabian archaeology and epigraphy*, vol. 20, (1999), pp. 248-63
- Weisman, A. 'Never Having Written a Note for Percussion by Tenney—on Snare Drum?', *Percussive Notes*, Vol 49 No 3, (2011), pp. 52-63
- Books**
- Ando, Yoichi, Nosen D, *Music and Concert Hall Acoustics*, San Diego CA: Academia Press, 1997
- Artaud, A. trans. Richards, *The Theatre and its Double*, New York: Grove Press, 1958
- Bagehot, W. *Physics and Politics*, Kitchener Ontario: Batoche Books, 2000
- Bradford, W. *The Stanislavski System: Elements of the Russian Master's method*, <https://www.thoughtco.com/stanislavsky-sys-tem-acting-method-2712987>
- Brecht, B. *Brecht on Theatre*, trans. John Willett, London: Methuen, 1964
- Brindle, R. S. *Contemporary Percussion*, Oxford: Oxford University Press, 1970
- Chow, R. *Not Like a Native speaker*, NY: Columbia University Press, 2014
- Clarke, D. & C. *Music and Consciousness: Philosophical, Psychological and Cultural Perspectives*, Oxford: Oxford University Press, 2011
- Clayton, M, Durack, *Leante, Experience and Meaning in Music Performance*, Oxford University Press, 2014
- Collins, J. *Migrant Hands in a Distant Land*, Sydney: Pluto Press, 1991
- Collinson, I & Evans, M. *Sounds and Selves*, IAS-PM Conference 2005
- Cook, G. *Teaching Percussion*, New York: Schirmer, 1997
- Cook, N. *Beyond the Score: Music as Performance*, DOI:10.1093/acprof:oso/9780199357406.003.0001
- Crispin, D. Gilmore, B. eds. *Artistic Experimentation in Music*, Leuven University Press, 2014
- Godoy, R, and M. Leman. *Musical Gestures: Sound, Movement and Meaning*, New York: Routledge, 2010
- Grotowski J. *From the Theatre Company to Art as Vehicle*, in Richards T. 'At work with Grotowski on physical actions' New York: Routledge, 2004
- Hannan, M. Peter Sculthorpe, *His Music and Ideas 1929-1979*, St Lucia: University of Queensland Press, 1982
- Harrison, S. ed. *Research and Research Education in Music Performance and Pedagogy*, Springer Dordrecht Heidelberg New York London: 2014
- Haynes, B. *The End of Early Music: A Period Performer's History of Music for the Twenty-First Century*, Oxford: Oxford University Press, 2007
- Healy, J. ed. *Australian National Identity*, Sydney: The Spinney Press, 2010
- Holloway, R. and H. Bartlett, *Guide to Teaching Percussion*, Dubuque Iowa: W. C. Brown, 1971
- King, E. & Gritten, A. *Music and Gesture*, Milton: Taylor and Francis, 2016
- Kraus, P. *A New Australia, A New Australian*, Sydney: Federatktion Press, 1994
- Kunz, E. *Displaced Persons: Calwell's New Australians*, Canberra: Australian National University Press, 1988
- Levi-Strauss, C. *Myth and Meaning*, New York: Schocken Books, 1979
- Macarthur, Sally, J. Lochhead, J. Shaw, *Music's Immanent Future*, London: Routledge, 2016
- Montague, E. *Phenomenology and the 'hard problem' of consciousness and music*, Oxford: Oxford University Press, 2011
- Moore, S. *The Stanislavski System*, New York: Viking Press, 1965
- Pennay, B. *Calwell's Beautiful Balts*, Albany-Wodonga: Parklands, 2007
- Peinkofer, K. and Fritz Tannigel, trans. Kurt and Else Stone, *Handbook of Percussion Instruments*, London: Schott, 1969
- Peters, G. *The Drummer: Man*, Wilmette IL: Kemper-Peters Publications, 1975
- Philip, R. *Early Recordings and Musical Style: Changing Tastes in Instrumental Performance, 1900-1950*, Cambridge: Cambridge University Press, 1992
- Plato *The Republic* trans Benjamin Jowett <https://ebooks.adelaide.edu.au/p/plato/p71r/introduction4.html> accessed 12 August 2017
- Price, C. ed. *Australian National Identity*, Canberra: Academy of the Social Sciences in Australia, 1991
- Richards T. *At work with Grotowski on physical actions*, New York: Routledge, 2004
- Schaefer, J. *New Sounds: Guide to New Music*, London: Virgin, 1990
- Smith Brindle, Reginald. *Contemporary Percussion*, London, England: Oxford University Press, 1970, UK
- Smith E Joseph, *The Experiencing of Musical Sound*, New York: Gordon and Breach, 1979
- Stanislavski, K. *An Actor's Work*, translated Jean Benedetti, London: Routledge, 2008
- Styan, J.L. *Modern Drama in theory and practice* vol. 1-3, Cambridge: Cambridge University Press, 1981
- Szymanowski, Karol. *Sześciopałkowa technika gry na wibrafonie: Metoda Karola Szymanowskiego (The six mallet technique for the vibraphone: Method of Karol Szymanowski)*, Bydgoszcz, Poland: Wydawnictwo Uczelniane Akademii Muzycznej im. F. Nowowiejskiego 2008

Taruskin, R. *Text and Act: Essays on Music and Performance*, Oxford: Oxford University Press, 1995

Van der Post, L. *Venture to the Interior*, New York: William Morrow and Co., 1951

Werder, F. *More Than Music*, Melbourne: Council of Adult Education, 1991

## Dissertations

Archinal, Brian Scott, 'Having Never Listened to a Note of Percussion: Critique and Exploration of New and Old Models for Percussion Performance Practice', MA Dissertation, UCSD, 2010

Chu, V, 'The Artaudian Theatre of Images: The Language of *Mise en Scene* in the Theatre of Artaud and his Followers', PhD Thesis, Bowling Green State University, 1996

Cioffi, K. M, 'Alternative Theatre in Poland 1954-1989', PhD Thesis, New York University, 1994

Coleman, Matthew, 'Instrument Design in Selected Works for Solo Multiple Percussion', DMA Dissertation, Arizona State University, 2012

Colton, Michelle, 'Typologies of Movement in Western Percussion Performance: A Study of Marimbists' Gestures', DMA Dissertation, University of Toronto, 2013

Dunstan, K, 'Percussion and Theatrical Techniques: An Investigation into Percussion Theatre Repertoire and its Presence in Australian Classical Music Culture', Mmusic Dissertation, University of Sydney, 2015, <https://www.youtube.com/watch?v=TMk-tRNghCjo> accessed 3 Feb 2017

Gauthreaux II, Guy Gregoire, 'Orchestral Snare Drum Performance: An Historical Study: A Monograph', DMA Dissertation, Louisiana State University and Agricultural and Mechanical College, 1989

Huang Aiyun, 'Perspectives on music interpretation: Instrumentation, memory, metaphor, and theatrical intention', DMA Dissertation, University of California, San Diego University Microfilms International (UMI), Ann Arbor, MI, 2004

Kumor, Francis Vincent, 'Interpreting the relationship between movement and music in selected twentieth-century percussion music', DMA Dissertation, University of Kentucky, Lexington University Microfilms

International (UMI) Ann Arbor, MI, 2002

Lambert, James W. 'Multiple Percussion Performance Problems as Illustrated in Five Different Works Composed by Stockhausen, Smith Brindle, Colgrass, Dahl and Kraft Between 1959 and 1967', DMA Dissertation, University of Oklahoma 1983

Lane, John, 'Abstracted Resonances: A Study of Performance Practices Reflecting the Influence of Indigenous American Percussive Traditions in the Music of Peter Garland', DMA Dissertation, University of Cincinnati, 2010

Manzanilla, Federico Ivan, 'Conveyance of a player's intentions in performances of percussion: Interaction between auditory and visual information', DMA Dissertation, University of California, San Diego University Microfilms International (UMI) 2004, Ann Arbor, MI

Mason Karlyn Renee, 'The synthesis of artistic elements in works for theatrical percussion', DMA Dissertation, University of Miami, 2014

Ragheb, Nicholas Joseph, 'From Darbuka to Dümbelek: The Turkish Goblet-shaped Drum and the Construction of Difference', MMus Dissertation, University of Texas, 2012

Sannuto, J, 'On Contemporary Music Dance Theatre: The Creation and Production of an Original Work', Doctor of Arts Thesis, New York University, 1997

Strom, J, 'Theater Percussion: Developing a Twenty-First-Century Genre through connection of Visual, Dramatic, And Percussive Arts', DMA Dissertation, University of Northern Colorado, 2015

Stuart, Gregory William, 'A percussionist's practice', DMA Dissertation, UCSD, University Microfilms International (UMI), Ann Arbor, MI 2009

Sullivan, M. S, 'The Performance of Gesture: Musical Gesture, Then and Now', DMA Dissertation, University of Illinois at Urbana-Champaign, 1984

## Discography

Georges Aperghis – *Le Corps Á Corps Percussion Theatre*

Eric Bryce – *6 Pieces for Marimba/Vibraphone and Piano*

Tristram Cary – *Black, White and Rose*

Robert Constable – *Dies Irae No. 9*

Kaylie Dunstan – *Percussion Theatre Highlights*

Ross Edwards – *Marimba Dances*

Veit Erdmann-Abele – *Waiting for...*

Christina Green – *Eileen's Vision*

Richard David – *Hames Quête*

Christos Hatzis – *Fertility Rites*

Jose Merlin – *Suite del Recuerdo*

David Morgan – *It-Bit*

Máximo Pujol – *Variaciones sobre un tema de Atahualpa Yupanqui*

Francisco Tárrega – *Recuerdos de la Alhambra*

James Tenney – *Having Never Written A Note For Percussion*

Felix Werder – *Quinny on the Roof*

## SCORES

Abe, Keiko *Voice of Matsuri Drums*, for marimba, Tokyo: Xebec Music Publishing, 1992

Benson, Warren *Three Dances for Solo Snare Drum*, Los Angeles: Chappell, 1962

Bergamo, John *Four Pieces for Timpani*, New York: Music for Percussion, 1962

Borkowski, Marian *Spectra*, Munich: Edition Pro Nova, 1985

Brouwer, Leo *Variantes for one percussionist*, Mainz: Schott, 1973

Colgrass, Michael *Six Unaccompanied solos for snare drum*, USA: Lawson-Gould Music Publishers, 1957

Edwards, Ross *Marimba Dances*, Amersham: Ricordi, 1984 and 1990

Erdmann Abele, Veit *Waiting for...* for marimba, manuscript, 2002

George, David *Choose Your Own Adventure*, Brisbane: Rhythmscape, 2015

Kraft, William *English Suite*, New York: Award Music, 1975

Kraft, William *Images*, Van Nuys CA: New Music West, 1978

Kraft, William *Morris Dance*, Los Angeles: Western International Music, 1964

Kulenty, Hanna *One by One*, for marimba, Kraków: PWM, 1988

Lavenda, Richard *Split 5 Ways for marimba*, manuscript, 1993

Lloyd, Robert *Etude On Kandian Drum Rhythms for solo percussion*, manuscript, 1978

Middenway, Ralph *Mosaics* for solo percus-

sion, manuscript, 1987

Moore III, Joe W *juNO*, 2015, Rhythm Scene, Vol. 2, No. 4, Indianapolis IN: 2015

Morgan, David *It-Bit*, manuscript, 1991

Moszumańska-Nazar, Krystyna *Three Concert Studies for percussion solo*, Kraków: PWM, 1969

Pstrokońska-Nawratil, Grażyna *Studio per una batteria*, Kraków: PWM, 1981

Pujol, Máximo *Variaciones sobre un tema de Atahualpa Yupanqui*, Columbus OH: Editions Orphée Inc, 2001

Pusz, Ryszard *GD*, timpani, manuscript, 2015

Pusz, Ryszard *On The Outer*, PTS drum, manuscript, 2004

Pusz, Ryszard *Suite for Snare*, snare drum, manuscript, 2018

Rudziński, Witold *Variations and Fugue*, Kraków: PWM, 1965

Schinstine, William *Recital Suite for Snare Drum*, Delevan NY: Kendor, 1981

Schinstine, William *Three Means to an End*, New York: Kendor, 1977

Schwantner, Joseph *Velocities*, New York: Schott Helicon Music Corporation, 1990

Sitsky, Larry *The Phantom Drummer Of Tedworth* (solo perc), manuscript, 1990

Stockhausen, Karlheinz *Zyklus*, London, Universal Edition, 1960

Tárrega, Francisco ed. Karl Scheit, *Recuerdos de le Alhambra*, Vienna: UE, 1967

Tenney, James *Having Never Written a Note for Percussion*, 1971

Werder, Felix Quinny *On The Roof* for solo percussion, manuscript, 1990

## WEB SITES

**Adelaide Symphony Orchestra:** 2019 concert season [https://www.aso.com.au/app/uploads/2019\\_Season\\_Brochure.pdf](https://www.aso.com.au/app/uploads/2019_Season_Brochure.pdf), accessed 3 Jan 2019

**Australian Artists:** <https://www.aasd.com.au/>

**Australian Film Institute:** <https://www.aacta.org/>

**Australian Literature:**

Bronwyn Bancroft <https://www.bronwyn-bancroft.com/>

Rachael Treasure <http://www.rachaeltreasure.com/>

Tim Winton *Dirt Music* <https://www.facebook.com/timwintonauthor/>

**Australian Music Centre:** <https://www.australianmusiccentre.com.au/>

[australianmusiccentre.com.au/search?page=5&type=party&q=landscape](https://www.australianmusiccentre.com.au/search?page=5&type=party&q=landscape)

**Australian Photographers:**

Pete and Vicki Dobré <https://petedobre.com.au/australia/>

Steven Parish <https://www.steveparish-natureconnect.com.au/archives/australian-photography/>

**Bongos:** <https://www.x8drums.com/vblog/2007/03/history-of-bongo-drum.asp>

**Contemporary Music Review**, Vol 36 no, 1-2, <https://www.tandfonline.com/toc/gcmr20/36/1-2>

**Drum Rudiments:** <http://www.pas.org/docs/default-source/default-document-library/pasdrumrudiments2015.pdf>

**Kolberg Percussion:** [http://www.kolberg.com/products/en\\_GB/537/cross/121.html](http://www.kolberg.com/products/en_GB/537/cross/121.html)

**Luby, Miranda:** <http://www.bbc.com/travel/story/20170607-why-are-australians-so-laid-back>

**Mallet Instruments:** <http://www.deaganre-source.com/>

**Mallets:** <http://www.mikebalter.com/>

**Marimba:** Mutsuko Fujii, trans. Philip Flavin, 'The Development of Music for the Xylophone and Marimba in Japan', PAS Fujii Database vol 1,

**Marimba:** Mutsuko Fujii and Senzoku Marimba Research Group, 'Evolution of the Japanese Marimba', PAS Fujii Database vol 2, <http://www.pas.org/Files/FujiiDatabaseVol2.pdf>

**Marimba:** Mutsuko Fujii, 'Database of Japanese Marimba Works', <http://www.pas.org/docs/default-source/pasic-archives/FujiiMarimbaDB.pdf?sfvrsn=0>

**Modern Drummer:** <https://www.modern-drummer.com/>

**National Archives of Australia:** Displaced Persons <https://recordsearch.naa.gov.au/SearchNRRetrieve/Interface/SearchScreens/BasicSearch.aspx>

**Pir-o-Murshid Inayat Khan Sayings:** TALAS (Rhythmic expressions of ideas) [https://wahiduddin.net/mv2/say/gayan\\_talas.htm](https://wahiduddin.net/mv2/say/gayan_talas.htm)

**Rich, Buddy:** <http://drummagazine.com/one-handed-roll-a-buddy-rich-trick/>, <https://www.youtube.com/watch?v=prbzhRI70CA>

**South Australian Migration Museum:** Arbeitsbuch and related documents <https://migration.history.sa.gov.au/>

**Theatre v Drama:** <http://www.skidmore.edu/~lopitz/arcadia/playreading.html>

**Torrence, Jennifer:** Percussion Theatre: a body in between, <http://www.jennifertorrence.com/>

**Tzschoppe, Olaf:** <http://olaftzschoppe.de/en/media-audiovideo-2/>

**US Naval Institute:** <https://www.usni.org/> ●

# Shaky Hands and Cold Feet: Analyzing Disability in Body Works

by Ross Aftel

## Abstract

After studying the literature of Joseph Strauss and consulting *The Oxford Handbook of Music and Disability Studies*, I noticed that a large amount of scholarship has been devoted to analyzing metaphorical gestures of disability through musical score analyses. Some writers, however, provide unique perspectives on the topic of performance and disability, often from a first-person perspective in musical performance. Taking initiative from pianist and music and disabilities scholar Stefan Honisch, I argue that physical gestures can be analyzed in a literal way by studying and performing works written for the body of a performer and using personal narrative as a means of phenomenological investigation. I am a percussionist with “Charcot-Marie-Tooth Disease”, a neuro-muscular disease affecting the nerves in my hands and my ability to walk. The aim of my research is to identify what about compositions in which the body is the primary instrument, or what I refer to as *Body Works*, could be significant to performance studies and disability studies. Through the analysis of my own performance experiences and supporting literature, I explore how performing works for the body deals with disability tropes such as alienation, accommodation, passing, and the stare. I also show how certain music could be interpreted as disabling the performer and disabling the audience. Although a few pieces will be mentioned to understand the different aesthetic aspects of *Body Works*, I will focus on two pieces for case studies: Colin Tucker’s *remainder* (2013) and Frederic Rzewski’s *Lost and Found* (1985). These two pieces will help in the analysis of physical gestures and the body in a way that can be helpful to other scholars of disability and performance.

In high school I was often referred to as “Forrest Gump” or “Crazy Legs”. This was because of the ankle-foot orthoses (AFOs), or leg braces, that I have had to wear due to a hereditary neuropathic condition I have known as Charcot-Marie-Tooth disease (CMT). In college, I often encountered hesitation from performance faculty about following a performance degree. However, beginning in 2013, I became heavily involved in dance collaborations with several choreographers and developed an intense fascination with *Composed Theater* (also known as instrumental theater and *musiktheater*). I began to explore artists such as Pina Bausch, Dieter Schnebel, and Heiner Goebbels; all of whom synthesized music, theater, and dance into larger

multidisciplinary art forms. Encouraged by musicologists Judith Lochhead and Erika Honisch, I explored the field of music and disability studies to use my condition and experiences to my advantage.

After studying the literature of Joseph Strauss and consulting *The Oxford Handbook of Music and Disability Studies*, I noticed that a large amount of scholarship has been devoted to analyzing metaphorical gestures of disability through musical score analyses. Some writers however, provide unique perspectives on the topic of performance and disability, often from a first-person perspective in musical performance. Taking initiative from pianist and music and disabilities scholar Stefan Honisch, I argue that physical gestures can be analyzed in a literal way by study-

ing and performing works written for the body of a performer, and using personal narrative as a means of phenomenological investigation. The aim of my research is to identify what about compositions in which the body is the primary instrument, or what I refer to as “*Body Works*,” could be significant to performance studies and disability studies. Through the analysis of my own performance experiences and supporting literature, I explore how the act of performing works for the body interacts with disability tropes such as alienation, accommodation, passing, and the stare. I also show how certain music could be interpreted as disabling the performer and disabling the audience. Although a few pieces will be mentioned to understand the different aesthetic as-

pects of body works, I will focus on two pieces for case studies: Colin Tucker's *remainder* (2013) and Frederic Rzewski's *Lost and Found* (1985). These two pieces will help in the analysis of physical gestures and the body in a way that can be helpful to other scholars of disability and performance.

Before any discussion of specific compositions proceeds, there should be an explanation about the types of pieces that will be used for this analysis. As stated in the introduction, the focus will be on body works. I claim that body works are pieces of music that focus on the body of the performer as the primary instrument. These pieces of music are often presented like western art pieces and also tend to be theatrical in nature. This term is not commonly used, but there is a rhetorical issue with referring to the works by the more widely used label, *body percussion*. This is because most practices of body percussion stem from traditional dances and popular music idioms. Body percussion practices can be seen and heard in such dances known as hambone in the US, *saman* in Indonesia, and *palmas* in Spain. In contemporary youth culture in the US, stepping, a form of African American body percussion, is a popular dance practice that many millennials

grew up with, and was featured in films such as *Drumline* (2002) and *Stomp the Yard* (2007). Using the case studies in this paper, I will present a gradually more-refined explanation as to what body works are and what they represent.

I argue that the aesthetics of body works are derivative of two other art forms: composed theatre and body art. This relationship is depicted in example 1, which schematizes body works. The term "composed theatre" was developed at a symposium supported by the *Stiftung Universität Hildesheim*, led by Michael Roesner and Matthais Rebstock in 2009.<sup>1</sup>

Rebstock explains composed theatre as a practice of devising theater primarily through music-compositional techniques. These strategies include (but are not limited to) serializing extra-musical material such as movement, lighting, and staging. It might also involve the adaptation of musical forms like sonatas, or rondos within a theatrical work. This explanation of Rebstock's description is reductive and I encourage others to study his work.<sup>2</sup>

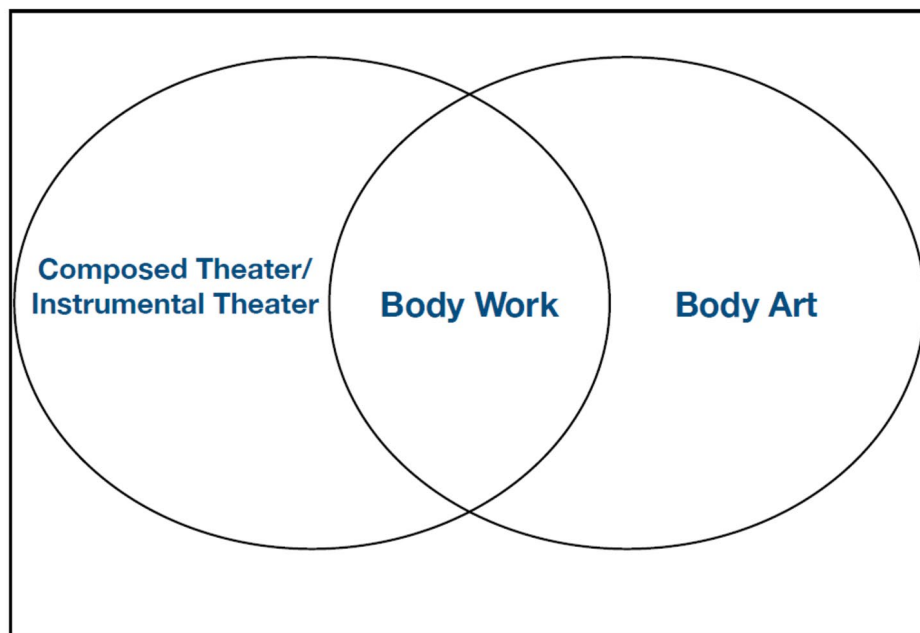
Practitioners of composed theatre primarily focus on the creation of works that subvert the hierarchy of performative mediums such as music, dance, and theater in order to create more holistic performance pieces. Examples of this hierar-

chy might be the emphasis of narrative in a play over the use of music, or singers being the focus of an opera instead of utilizing the music or musicians to develop the piece. Composed theatre has its influence on body works specifically because they are both theater practices devised through music-compositional means. The potential for composing with non-musical material—specifically movement—created a lot of artistic opportunities for two composers starting in the early 1960's: Mauricio Kagel and Dieter Schnebel. Kagel wrote that movement "is the fundamental element of Instrumental Theatre [the creation of instrumental pieces that also function as theatrical dramas] and is taken therefore into account during musical composition. Movement on the stage becomes an essential feature for differentiating from the static character of a normal musical performance."<sup>3</sup>

Kagel's emphasis on composing movement may be observed in a work such as his piece *Pas des cinq*, in which five performers are instructed to walk along a pentagram of different surface textures in specified rhythms. The musical aspect of this piece is presented through different forms and rhythms of walking.

Kagel's interest in movement has been seen not only in his works, but in the works of Dieter Schnebel. Early in Schnebel's career, he acknowledged the highly performative nature of the physical gestures of conductors. This led to the creation of Schnebel's early work *nostalgie (or Visible Music II) for conductor* (1960-62), which is a piece that is intended for a solo conductor.<sup>4</sup> *Nostalgie* features a solo conductor without an ensemble, making the musical emphasis focused solely upon the physical gestures of the conductor. *Nostalgie* could arguably be considered the first body work. This could be argued because whereas there were other works from Kagel such as *Transición II* and *Staatstheater* that used the body, those works were always presenting the body as sounding in reaction to something else such as broken machines, toys, or small percussion instruments.

Example 1: Body Works Aesthetic Diagram



Although *nostalgie* is derived from the mimetic performance of conducting gestures, Schnebel was also one of the first to apply serial procedures to bodily movement in order to compose certain pieces. The score *Körpersprache* (1980) contains sketches, theories, and formal outlines for the creation of a “*komposition der körperbewegungen*” (a composition of body movement). Schnebel describes *Körpersprache* as an “*Organkomposition*”, which may be translated into English as “body composition/work”. Schnebel states within the score that this piece, in certain ways, can present the potential of the body through physical expression. He goes as far as to say that this work can contain a kind of “natural history” and “the history of human movement.”<sup>5</sup> This is a bold claim, but it is possible to be sympathetic to this idea if considering the piece as a statistical collection of body movements. The score itself outlines a great number of potentialities for the body as it is in motion; in some ways the score reads as documentation for all possibilities for moving individual appendages. Much of this work was devised through serial techniques, whereby sequences of motion and selection of body parts were determined by conventional serial methods.<sup>6</sup>

Apart from the influence of composed theatre, the other aesthetic practice that body works is derived from is body art. Whereas the aesthetic ideology of composed theatre is fairly straightforward in the creation of theatrical pieces through music composition techniques, body art has a more complex ideological background. Drawing from theorists and artists such as Elizabeth Grosz, Bryan Turner, Carolee Schneemann, and Michel Foucault, Amelia Jones has provided a comprehensive text on the philosophical and ideological background of body art. In her work *Body Art, Performing the Subject* Jones claims body art emphasizes

the position of the *body*— as locus of a “disintegrated” or dispersed “self”, as elusive marker of the subject’s place in the social, as “hinge” between nature

and culture...The term “body art” thus emphasizes the implication of the body (or what I call the “body/self,” with all of its apparent racial, sexual, gender, class, and other apparent or unconscious identifications) in the work.<sup>7</sup>

This definition describes how the body is a site for multiplicity. The body is natural, but simultaneously artificial as it is socially constructed. The body can expose itself as a subject and an object. In the quote, Jones describes the body as a “body/self”. This is understandable in body art, as the body and the self are often inseparable. For example, body art pieces are performed, or rather presented, by the artist who created the work (for instance, Carolee Schneemann performs her own work *Inner Scroll*, Marina Abramović performs her own work *The Artist is Present*). Thus, it is mostly the case that the specific body of the artist is necessary in the presentation of the work because what is being presented, according to Jones, is a political body that is expressed solely through the individual artist, or themselves. Jones emphasizes the importance of political engagement with body art. By placing the body/self within the social domain, body art (with all of its potential for intersubjectivity) “provides the *possibility* for radical engagements that can transform the way we think about meaning and subjectivity (both the artist’s and our own).”<sup>8</sup>

The political implications of the body in body art and body works are slightly different. Firstly, there is a question of whose body is being presented and politicized. In body art, the body of the artist is normally the body in question. Also according to Jones, the presentation of the body does not always require a physical presence; body art can be presented in photography and other digital mediums. In contrast, body works do not typically depend on the physical presence of the creator’s (composer’s) body. Body works are created as conventional western musical compositions and are replicated by other performers. When a body work

is being performed, the political body of the composer is rarely what is at stake. Although it could be said that the composer’s authorship is present within the presentation of the work, it is the performer’s body that is the place of political interpretation.

Vinko Globokar’s *?Corporel* is a compelling example for this issue. *?Corporel* is a body work that requires the performer to be topless. The score has no indication of an alternative way of presenting the body. Even though this idea is an assumption, it is widely believed that Globokar did not initially intend for a woman to perform the piece. This is due to the piece being written for Gaston Sylvestre and has also been performed by the composer himself. There are also moments when beating certain areas of the body might cause greater discomfort for a female as opposed to a male.

Because *?Corporel* was likely written for male performers, the performance of this piece as presented by a female body can immediately become a politically charged spectacle. In the article “The Speaking Percussionist as Storyteller”, percussionist Bonnie Whiting provides a first person account of her experiences with *?Corporel*. By presenting an exposed female torso, the female body becomes a political surface. A naked female torso presents an alienated body in the world of percussion, as percussion (similarly to low brass) is still heavily male populated.<sup>9</sup> It is the political act of alienation, in regard to the body that allows for the discussion of disability in performance. Thus, Whiting’s performance of *?Corporel* projects a critique of a naked Other.

Alienation is a common feature within the body art movement. Sociologist Bryan Turner states, “The body is the most proximate and immediate feature of my social self, a necessary feature of my social location and of my personal enselfment and at the same time an aspect of my personal alienation in the natural environment.”<sup>10</sup> The body is alienated through its awareness within social and cultural spaces, but it is also alienated within nature. As

an example, by presenting any body that does not exemplify the conventional body in western art (white, male), there is an inherent alienation of the body being presented. This is due to the white male body being the western symbol of the patriarchy and thus the symbol of an able, strong body.

This example of conventional bodies versus alienated ones can be taken a step further. Within the world of performance, the presentation of the disabled body is the exposure of an alienated form. The disabled body is an alienated body, and faces unique struggles through its alienated presence in performance. Even in regards to the relationship of a disabled body and to nature itself, the disabled body is viewed as lacking natural ability. For example, I am often described in medical reports as a person who cannot highly function without the assistance of ankle-foot orthoses (AFOs). The use of these braces allows me to walk without my feet dropping, stumbling over my toes, or walking on the inside of my foot. In other words, I cannot function in a normal or conventional way without the use of AFOs.

As previously suggested, alienation is a significant concept within both body art and body works; this construct will be the entry point into disability within body works. From a general perspective, any body with physical abnormality or neuromuscular condition can quickly become an alienated body in musical performance. Most physical aspects involved with musical performance are not designed to handle people with disabilities, thus making higher-level studies in performance inaccessible to those performers with unique bodily predispositions. An example of such alienation would include the nature of the orchestra audition. In order to successfully win an orchestra audition, the candidate needs to create an idealized interpretation of musical excerpts. In classical percussion auditions, it is most often the case that the physical capabilities required for ideal execution limit the types of candidates who

will be able to successfully complete the audition. I myself have extremely limited vertical and lateral motion in my ankles, making the lateral swinging clutches on Dresden timpani foot pedals used in most auditions highly prohibitive. Another example could be a percussionist with one hand who may have difficulties playing crash cymbal excerpts. Even within universities or conservatories, one can often find a lack of accommodation alienating.<sup>11</sup>

Although many musicians live with physical conditions that inhibit us from easily performing in the more conventional realms of orchestral repertoire or standard classical repertoire, thus alienating us, there are ways of confronting the alienating effects of disability within the performing community. There are two potential ways of handling the experience of disability alienation in performance. One way is to adapt one's playing in order to successfully perform the desired repertoire in a way that is most comfortable: the other way is to emphasize and expose the difference a disability presents with a performer. Adapting one's playing technique is not something that is inherently unique to performers with disabilities; every player should always find a way of physically executing techniques in a comfortable way to play their instruments. But for persons with disabilities, this is often a daily obstacle and one that is not always as simple as adjusting playing posture.

In "Re-narrating Disability' through Musical Performance", Stefan Honisch describes his development of manual legato technique in order to bypass the difficulty of using the *una corda* pedal on the piano.<sup>12</sup> In this article, Honisch also discusses the use of attachments to the sustain pedal of the piano, as well as performing in his wheelchair instead of sitting on the piano bench. Honisch's examples of adaptation are twofold; 1) he must develop a different physical skill that is not commonly used (due to technical innovations to the construction of the piano), and 2) the adaptation of his instrument to better accommodate his unique physicality. The

first of these forms of adaptation—technical adaptation—is an obstacle that most performers with a disability can attest to dealing with at one point in their lives. I myself have had to change the way I hold mallets due to the lack of finger dexterity and the general strength of my hands. The other form of adaptation falls into the realm of organology. There are several cases of instruments being adapted for certain body types. The most familiar examples would be smaller sized string instruments, but there are also curved flute head-joints, extended-range triggers for trombone, and bent mouth pieces for brass instruments.

Aside from adapting one's disability to conventions, the other way of handling disability is to expose it, emphasize it, and embrace it as a unique signature of one's individual performance style. This option is the essence of my argument, namely, that performance can be a means of utilizing disability as a means of artistic representation. Although many composers wrote pieces for musicians with physical differences such as one handed pianists, these works do not necessarily emphasize the unique condition of the performers; players like Paul Wittgenstein or Siegfried Rapp performed these pieces because the works were designed to allow their technical abilities to pass as normative. "Passing" in this context refers to the act of being accepted as able-bodied. A piece of music like Ravel's *Piano Concerto in D Major* does not expose the one-handedness of Wittgenstein, rather it demonstrates Wittgenstein's ability to pass in the general world of two handed pianists. In the world of percussion, Greg Stuart has collaborated on many successful pieces that allow for passing, including works like *Ricefall from Michael Pisaro* and *LOVE from Kunsu Shim*.

My interest in body works, however, is not to present an art form that encourages passing. I am interested in pieces that can display physical disability in a way that promotes bodily difference in artistic ways. It is not that body works necessarily strive to do this, but they can. There

is a special piece of music however that does physically disable the performer in order to perform the piece as instructed. Kagel's *Pièce touchée, pièce jouée* from *Sonant* (1960/...) for guitar, harp, contrabass, and percussion requires the performers to play the written parts, but should try to touch the instrument as little as possible. According to the performance instructions, "Aside from a real (conventional) instrumental interpretation...the musicians can mimic exactly the instrumental performance of their parts...All actions must be performed as near as possible to the strings or playing surfaces of the instruments." When playing *Sonant*, the players hover over their instruments, trying to balance the physical imitation of playing with the actual attempt of playing what is written in the score. These instructions result in the ensemble physically shaking and trembling while they try to play the music. This is a type of piece that can actually benefit from the players losing control of the muscles through the exhaustion of excessively using them. Kagel's writing style in this piece literally disables musicians. The physical demands of the performers in this movement of *Sonant* would suit players such as myself who deal with shaky hands or a lack of muscular control due to neuromuscular disorders. Instead of strenuously imitating a performance of this piece through tense physicality, I am able to naturally provide an inconsistency of playing without altering my playing technique.

Some body works provide similar artistic outcomes to that of *Sonant*, but without the artistic goal of creating physical disability. As noted in the introduction, Colin Tucker's *remainder* and Frederic Rzewski's *Lost and Found* are two examples of body works that provide unique opportunities for performing gestures that expose and utilize a performer's disabilities. *remainder* is a solo work written in 2013 that was derived from one of Tucker's previous works for percussion duo, *nothing towards obstruction or else erasure yet and* (2012). *remainder* requires a performer to produce sound by

scraping a somewhat pliable surface with an equally pliable object. Tucker created a highly technical notation system in which vertical pressure (red) and horizontal pressure (blue) of the object against a surface are notated. The rhythms notated above the staff correspond to the horizontal pressure while the rhythm below corresponds to the vertical pressure.

In describing the aspects of the body in this piece, Tucker states,

*remainder* constructs a rhizomatic, non-hierarchical assemblage between score, performer, and instrument, where the score activates dialogue between the particularities of the performer and the instrument. In navigating contradictory actions, the performer's body and the instrument are always in excess of the composer's (and indeed often the performer's own) intention. A successful performance of this piece will not entail compliance with an a priori sound image (there is none), but instead will articulate the notation's contradictions in a way that is unique to the specific performer and chosen surface/implement combination.<sup>13</sup>

This program note is important to consider when trying to understand what the relationship of the body is to the other aspects of Tucker's rhizomatic structure. The description explains that the composer changes the value of the body in this piece by masking it within a Deleuzian "non-hierarchical" structure. But is the piece non-hierarchical as Tucker suggests? I disagree with Tucker's claim when considering what he suggests is the instrument. The program note claims that the instrument is the implement scraping against a surface. The composer also suggests that a successful performance "will not entail compliance with an a priori sound image (there is none)". I argue that the instrument, or the main source of sound and movement for this piece, is the wrist and arm. The score supports this claim because the notation is describing not the resulting sound or end result, but the physical mechanics of bodily motion,

conceptually similar to musical tablature or other action notations. The score is supporting the importance of bodily gestures in this piece because the motion and tension of the body is what the composer is notating, thus establishing the significance of the body within this work. The surface and implement are of far less significance to the piece. These two tools are a means of hearing the physicality of vertical and horizontal pressure that is being exerted by the body. This is one way that the performer can be understood as hierarchically more significant than the rest of the actors in *remainder*.

Another way that the work can be focused around the body of the performer is when considering the manner in which the performer is scraping the implement on the surface. Superficially, this scraping action is presented as a highly mechanical gesture. Looking at the score excerpt in example 2, the composer notates the gestures in a way that are counter-intuitive to the way in which most people consider how they move their body. For example, there is never a consideration of vertical pressure versus horizontal pressure when using a pencil. When learning to play *remainder* however, I quickly become aware of the physics involved in scraping a piece of wood with a piece of cardboard.

Apart from the awareness of the mechanics of motion, what becomes most apparent to me is the effect that Charcot Marie Tooth disease (CMT) has on my performing and reception of the piece. When I perform *remainder*, the result is something similar to that of a performer playing *Sonant*. As previously stated, CMT is a motor neuropathic condition that has affected my hands through the gradual deterioration of my nerves. Because of the deterioration, my hands are always shaking, even at rest. When playing *remainder*, CMT causes my hand to appear tense because of the hand tremors. This does not mean that there is tension in my hand. In fact, my hand might be barely holding the implement at all and the shaking is the result of CMT. When scrap-



ing the surface with the implement, there is always varying inconsistencies as well.

The explanation of my performance experience with *remainder* might sound negative, but I want to emphasize that this is by no means the case. The side-effects of CMT have given my performance a unique style, or signature. Every time I perform this piece, there is a notable presence of my disability; one could say that I am performing my disability. The performance tends to be intensified by my shaky hand; all tension seemingly magnified by the lack of control with the fine motor skills in my left hand. When working with Colin Tucker on the piece, discussion of the disease was brought up, but not in a problematic way. Recall that “A successful performance of this piece will...articulate the notation’s contradictions in a way that is unique to the specific performer and chosen surface/implement combination.” Although Tucker’s idea was that the individuation of performance interpretation would derive from the contradictions in notation, the physical ability of every player will also yield a unique rendition of *remainder*.

To assist with the visual perception of the hand and wrist in *remainder*, Tucker suggests live video of the performance surface projected onto a large screen. This video projection is meant to magnify the finer details of the physical gestures within the piece. From a social standpoint, this part of the piece is a built-in critique of the stare. Disability studies and Bioethics scholar Rosemarie Garland Thomson describes the stare as: “Staring witnesses an intrusive interest on the part of the starrer and thrusts uneasy attention on the object of the stare.”<sup>14</sup>

It should be noted that scholars like Thomson understand staring and gazing as distinct from one another. Staring comes from the objectification of the viewer onto a body that is distinguished as a social other. Thomson refers to this body as most often being a disabled other. Gazing normally refers to the objectification of (heterosexual) sexual desire; commonly between the male viewer and the

female subject. “If...gazing is the dominant controlling and defining visual relation in patriarchy between male spectators and female objects of their gazes, staring is the visual practice that materializes the disabled in social relations...Gazing says ‘you are mine.’ Staring says, ‘What is wrong with you?’”<sup>15</sup>

In *remainder*, one of Tucker’s initial motives behind the live video projection was to provide closer detail to the visual aspect of the piece (the performance can also be amplified so the material can be heard in larger spaces). Because of my CMT, the shaking of my hand and the inconsistency of my gestures is greatly enlarged. There is a common practice amongst people with disabilities to try to pass as normal, but in this piece I can perform my disability. When I perform my disability, I am engaging in self-awareness with my own physical condition and what that might mean when performing certain pieces. Similar to performance artists Cheryl Marie Wade, Mary Duffy, and Carrie Sandahl, I perform my disability so that I can have power and structure over the stare that I regularly encounter.<sup>16</sup> *remainder* as a body work provides a useful tool for performing disability in that it creates a safe performative environment for engagement with the stare from audiences. The control over the stare in re-

gards to my shaky hands has always been a challenge; I cannot conceal the tremors. Tucker’s piece is significant to my musical identity because it encourages exposure sonically and visually under appropriate social conventions that allow for staring.

Not only does *remainder* allow for audiences to stare at my impairment, but it also allows for audiences to hear my impairment. When claiming to “hear” my impairment, I am claiming that audiences can hear the sound of physical condition affecting my ability to perform. The idea of hearing someone’s impairment is an interesting idea that can be related back to the previous discussion of Kagel’s *Sonant* or Wittgenstein performing Ravel. The thought of hearing disability can present a personal crisis to someone with a disability. For example, in regards to staring, it is often possible to conceal visible abnormalities; I myself always wear pants instead of shorts to cover up my leg braces. But if the disability can be heard, passing is far more difficult and can sometimes be traumatizing. Since 1998 I have worn AFOs that have a hinge to allow for vertical ankle mobility. When this hinge moves, there is always a sounding “click” with every step I take because the hinge returns to a closed position. This click is noticed by others. I regularly receive the comment “I heard you coming!” when-

Example 2: score excerpt from *remainder*

The image displays a musical score excerpt for the piece 'remainder'. It features a complex rhythmic structure with multiple layers of notation. At the top left, the numbers '21' and '16' are prominently displayed. The score includes several measures of music, with a large bracket spanning the first seven measures labeled '7:5'. Above the first three measures, there are three square boxes containing arrows pointing downwards, with a bracket labeled '7:5' underneath them. Below the main staff, there are two more staves with rhythmic notation, including a bracket labeled '9:10' and another labeled '7:6'. The notation uses various line styles, including solid and dashed lines, and includes vertical stems and horizontal beams.

ever I walk down a hallway. With this example, hearing a disabled persons' impairment is disturbing to people who notice it because there is never a way not to hear it. Hearing in this context can be defined as the aural perception of disability or abnormality. This hearing could be associated with a stutter, prosthetics, hand tremor, deafness, or the sound of a cane.<sup>17</sup> Hearing disability, in this case CMT, as it relates to performing *remainder*, is the sound of my left hand with an irregular tremor, scraping cardboard across a corrugated plywood surface.

Aside from *remainder*, there is another significant piece that deals with the stare and every other concept (adaptation, emphasizing physical difference, etc.) discussed in this paper. Frederic Rzewski's *Lost and Found* is a body work that is rarely performed and full of analytical oddities. *Lost and Found* was written in 1985 as part of a set of commissions by percussionist Jan Williams.<sup>18</sup> Williams is one of the preeminent pioneers of contemporary percussion in the United States, and in the case of *Lost and Found*, he commissioned Rzewski to compose pieces for small and minimal instrumentation that would be suitable for travel. This piece requires a table, a chair, and a naked ("or nearly so") performer. The materials (instrumentation, nudity, performance instructions) will be discussed in further detail shortly.

*Lost and Found* is far more unusual than most of the other pieces in the body works repertoire for several reasons. Primarily, this work is more similar to a monodrama than a conventional piece of art music. The score is an alternation between spoken text and action.<sup>19</sup> The text is based on a fragment from one of the dozens of published letters from Lt. Marion Lee "Sandy" Kempner during his tour in Vietnam. The letter fragment used is a witty and sarcastic letter home to Lieutenant Kempner's parents explaining about a class he taught on ambushes and how his men are falling into line and obeying orders.

This piece is not performed often, and

this likely has to do with the presentation of the work. *Lost and Found* benefits from and strongly implies some experience with Brechtian theories of acting, the physical action required is often painful and uncomfortable, and the composer instructs the percussionist "to be naked, or nearly so". Each of these issues regarding presentation are complex and could benefit from more extensive detail than will be provided in this paper, but I will introduce issues with these topics that can lead to further inquiry while still focusing on the primary thesis of disability and gesture.

First, I argue that the Brechtian aesthetic is something encouraged by the notated format of the score, and the manner in which Rzewski wants the text delivered.<sup>20</sup> As stated in the score instructions, "texts should be delivered with no particular expression. This does not mean: without expression; but: clearly and coldly, with a suggestion of ambiguity as to the meaning and how the performer relates to them."<sup>21</sup> This instruction is in a clear relationship with Brecht's ideas on alienation as derived from his seminal monograph, "Alienation Effects in Chinese Acting" (*Verfremdungseffekte in der chinesischen Schauspielkunst*). When first introducing the alienation effect, Brecht does so by explaining the reason why he thinks Chinese actors are aware of themselves during performance.<sup>22</sup> "To look at himself is for the performer an artful and artistic act of self-estrangement. Any empathy on the spectator's part is thereby prevented from becoming...a complete self-surrender. An admirable distance from the events portrayed is achieved. This is not to say that the spectator experiences no empathy whatsoever. He feels his way into the actor as into an observer."<sup>23</sup> In regards to their emotions, Brecht did not want audiences to be taken advantage of. Plays should not be focused on their characters, but instead the plays should use actors as characters to present the implied meaning and ideology behind the story. This is also why Brecht valued the practice of breaking the fourth wall.

This technique reminds the audience of the artificial construction within theater. If actors are aware of themselves on-stage, there is little chance for audiences to become swept up by theatrical illusion.

Rzewski values the same aesthetic ideas as Brecht in *Lost and Found*. As a performer on stage, once there is self-awareness of the role one plays, there is a case for self-estrangement. Thus, when I adhere to Rzewski's instructions "...clearly and coldly, with a suggestion of ambiguity as to the meaning and how the performer relates to them," I am committing to self-estrangement, or alienation. This alienation allows for a performer to present different levels of meaning within a single work. Supporting this claim, Brecht continues in his essay, "The 'alienation effect' enters in at this point, not in the form of emotionlessness, but in the form of emotions which do not have to be identical with those of the presented character."<sup>24</sup>

At this point, two questions arise. Firstly, how does the performer enact and present Brechtian alienation in a performance of *Lost and Found*? This will lead to the more important question - what does Brechtian alienation mean for performing with disability? In a performance of the piece, I clearly state the text. This is followed by approximately five seconds of silence. Following the silence, I perform each action forcefully, and to the best of my ability (one action requires the performer to "puke" on stage, and I have been unsuccessful in forcing myself to do so; the end result is a long period of dry-heaving). The relationship between text and action is often contrary and sarcastic; rarely does the action reinforce the meaning of the text in a non-ironic way. This contrariness of text and action represents the illusion of self-alienation, or disembodiment. Recollect the previous quote from Brecht in which he argues that emotions do not need to be congruent with those of the character or the actor represented in the work. This could be interpreted in *Lost and Found* as Rzewski trying to present the performer

separately as a mind (text) and a body (action). Post-dramatic scholars have written about how this is an impossible endeavor, but body works can regularly present the illusion of disembodiment. Ultimately, disembodiment is the alienation of self from body and Rzewski is clearly aiming for this in his design of *Lost and Found*.<sup>25</sup> To be clear, this piece is only an illusion of disembodiment. I am not suggesting that a body and a mind can be separate from one another, but artistically this separation can be implied.

To answer the second question of Brechtian alienation and disability, recall Bryan Turner's quote on alienation in body art: "The body is the most proximate and immediate feature of my social self, a necessary feature of my social location and of my personal enselfment and at the same time an aspect of my personal alienation in the natural environment." Self-awareness can lead to alienation when recognizing bodily/social difference within nature or society. When performing in the Brechtian style as a person with a disability, this implies that the performer will be aware of their own impairment(s). Thus, when I perform as self-aware, I am alienating myself by performing as a disabled body. When I am without my leg braces, I am immediately aware of my lack of balance, the dropping of my feet, and the irregular rhythm of my steps. When performing this piece without the use of AFOs, the issue of awareness and alienation becomes more obvious to the audience and myself when implementing Rzewski's requirement of being naked.

The initial feeling of being asked to perform naked is one of fear. Audiences already hold great power through the stare and/or gaze of the performers. Would being naked only surrender more power to the audience? I argue that when a naked disabled body is presenting a body work such as *Lost and Found*, the performer regains power within the audience/performer dichotomy. To understand this change in power, the term "naked" must be defined.

Taking an example from theoretical discourse, nakedness is the exposition of vulnerability. As philosopher and sinologist Francois Jullien notes in *The Impossible Nude*,

Nakedness implies a diminished state, being stripped, laid bare ("stark nakedness"); it carries with it a concomitant notion of feeling shame or of cause for pity, whereas no such sense is evoked by the nude—the feeling, on the contrary, is one of plenitude; the nude is total presence, offering itself for contemplation...<sup>26</sup>

To summarize this quote: to be nude is to be the ideal, true form of oneself. To be naked is never ideal. It is the exposure of oneself not as the ideal form, but one of a shameful state. The disabled body in society is often a form that involuntarily receives pity or shame. When I use a cane or my limp is more present, I often get sighs of sympathy or the stare. In a naked performance of *Lost and Found*, I take control of the stare. My scars become visible, my "inverted champagne bottle" legs are exposed, the disfigurement of my right foot becomes apparent, and most significantly my true gait and step are seen and heard by the audience.<sup>27</sup>

Accepting that there is a difference in being "nude" versus "naked", then what I am suggesting is that performing *Lost and Found* transforms my disabled body from being naked to being nude. Whether or not I am perceived as naked or nude will differ with the individual. Many audience members might react to my exposed body with the same pity as they do when I have a pronounced limp, but I perceive my body as unique and in its ideal form. I have never experienced a life without CMT, thus when I perform this piece, I experience myself as nude. I offer my body in its "total presence", and for "contemplation" by the audience. I do not share this piece to evoke pity from people watching me.

At this point, the argument of the performer's individual gender and sexuality could be questioned in relation to ideal

forms of the body. It is true that although I am disabled, I am still a white male. This is a complicated dynamic. When I am passing by covering up my AFOs, I perform as a member of the hegemony. Some disability scholars however disagree. Sociologist Tom Shakespeare discusses the asexuality or "third gender" quality of disabled men in his well-known essay, "The Sexual Politics of Disabled Masculinity".<sup>28</sup> Medical anthropologist Lenore Manderson and medical sociologist Susan Peake further develop Shakespeare's idea of third gender to go as far as saying that being a disabled man is an oxymoron because masculinity is (typically) defined as able-bodied and active.<sup>29</sup> Manderson and Peake continue,

Becoming disabled for a man means to 'cross the fence' and take on the stigmatizing constructs of the masculine body made feminine and soft...Cultural constructions of masculinity and femininity are reinforced by changes in physicality: male disabled bodies are seen to lose hardness, containment, and control, becoming leaky (with explicit connections to infants and women), indeterminate, liminal and soft, vulnerable to the stares of others.<sup>30</sup>

In the article that this quote is taken from, Manderson and Peake are discussing men that are becoming or have become disabled. The men that they interview and use as subjects for the ethnography go through a noticeable change of identity. This is not an experience that I have directly encountered because I was born with CMT, but the previous quote is one that I can still identify with as my condition worsens. Although male sex organs are exposed when performing *Lost and Found*, I foreground the frailness of my body, the lack of hardness, and confront the stares of others. By performing Rzewski's actions like falling on a table, self-flagellation, or tossing furniture with the full extent of my physical force, I am trying to emphasize the fragility of my disabled body in order to demonstrate that the disabled body is not a lesser body

in performance, but it is instead a body that can present valuable artistic expression. This does not necessarily suggest that I am trying to perform in a masculine way, but that I am presenting my disabled body as an exceptional body.

In many ways, being nude in a performance of *Lost and Found* makes the most compelling case for an effective performance of a disabled body. When audiences watch an instrumental performance, there is little issue with staring at the performer and critiquing them; it is expected. But when I present my exposed disabled body as the primary instrument, the performance situation is altered. The common practice to avoid staring at the disabled performer is negated. I foreground my otherness in the performance. This makes audiences extremely uncomfortable as it goes against social constructs. As audiences watch me perform, I perform abusive, masochistic actions on my body. Rzewski tells the performer to slam the table, fall on the table, throw a chair, hit oneself in the crotch, run into a wall, fall into the audience, puke, and many other gestures that are not normal for an audience to experience, which, aside from being revulsive, is additionally complicated when viewing the actions as being derived from my disabled body. *Lost and Found* thus presents a performance opportunity that allows the foregrounding of otherness while at the same time providing a unique vehicle of expression for persons with disability(s). Through a Brechtian interpretation of the score, my performing of self-alienation provides critique on the stare in a way that does not exploit my disability, but embraces it.

Using Frederic Rzewski's *Lost and Found* and Colin Tucker's *remainder*, I demonstrate what I conceive body works to be. Body works are pieces of music that focus on the body of the performer as the primary instrument. This type of music derives its aesthetics from the practices of body art and composed theater. Studying body works can be useful in exploring physical disability in performance because the focus of this type of

piece is on the physical body and how it moves or gestures. It is important to note that although mental and other invisible disabilities are not discussed in this paper on body works, invisible disabilities are conditions that can become apparent in numerous performance settings. Artists such as Gian Carlo Menotti, Samuel Beckett, Pina Bausch, and Hans Werner Henze all artistically deal with issues of invisible disabilities. The discussion of post-traumatic stress disorder could be an equally fruitful approach to contextualizing Rzewski's *Lost and Found*. For the purposes of this paper, as it pertains to the potentiality of using myself as a case study, I chose to focus on analyzing physical disability in performance.

Analyzing performances of body works allows for the exploration of disability tropes such as third gender, alienation, the stare, and accommodation. Similarly to Stefan Honisch's research, I utilize my first-person experience of performing to share with others the experiences I have of using my body with its impairments. Instead of focusing on passing as an able-bodied performer, I use my neuropathy to its advantage in my artistic interpretations to show the uniqueness of my physicality. In *remainder*, I expose my shaky hands to create an intense musical experience. In *Lost in Found*, I overcome my cold feet by performing not necessarily as a naked percussionist, but as nude in my ideal and exposed form.

## ENDNOTES

1. Colin Tucker's program note for *remainder*. <https://colintucker.wordpress.com/works/remainder/>
2. Rosemarie Garland Thomson. "Disabled Women Performance Artists & the Dynamics of Staring" in *Bodies in Commotion; Disability and Performance*. (University of Michigan. 2005) 30. This is also an understood aspect of the nature of performing; staring might be one of the major causes of stage fright.
3. Garland Thomson. 32.
4. *ibid*.
5. For more on the idea of hearing deafness,

see the film version of Mauricio Kagel's *Ludwig Van* as well as Peter Szendy's analysis on the Waldstein piano scene in his book *Listening: A History of Our Ears*.

6. The other piece that Rzewski composed in this set was his more widely performed work, *To The Earth*.
7. All of Rzewski's music is available online for free on IMSLP.
8. Bertold Brecht was a German playwright, drama theoretician, and poet who was active in the first half of the twentieth century.
9. Frederic Rzewski. "Lost and Found, for a Naked Percussionist (or Nearly So)". New York, NY: Manuscript, 1985. [http://imslp.org/wiki/Lost\\_and\\_Found\\_\(Rzewski%2C\\_Frederic\)](http://imslp.org/wiki/Lost_and_Found_(Rzewski%2C_Frederic))
10. It should be noted that scholars have proven that Brecht was wrong in his understanding of Chinese acting. Brecht's theory of *Verfremdungseffekt* was most likely preconceived before his meeting of the Peking Opera singer, Mei-Lan Fang, in Moscow. See Yang Hon-Lun *Music, China, and the West: A Musical-Theoretical Introduction*. University of Michigan Press. 2017
11. Bertold Brecht, and Eric Bentley. "On Chinese Acting." *The Tulane Drama Review* 6, no. 1 (1961): 130-36. doi:10.2307/1125011. The original title of the article was *Verfremdungseffekte in der chinesischen Schauspielkunst* but when translated in this publication, the title was altered to "On Chinese Acting". Many digital copies of the article are available online. This version was chosen for clarity.
12. Brecht. 133.
13. Erika Fischer-Lichte states, "...presence represents a phenomenon which cannot be grasped by such a dichotomy as body vs. mind or consciousness. In fact, presence collapses such a dichotomy. When the actor brings forth their body as energetic and thus generates presence, they appear as embodied mind. The actor exemplifies that body and mind cannot be separated from each other." from "The Performative Generation of Materiality." In *The Transformative Power of Performance*, (New York: Routledge, 2008) 98-99.
14. François Jullien, *The Impossible Nude*. 1st

ed.(University of Chicago Press. Chicago, IL. 2007.) 4.

15. "Inverted champagne bottle" is the term used to describe the often atrophied legs of people with CMT. "In addition, the lower legs may take on an "inverted champagne bottle" appearance due to the loss of muscle bulk. Later in the disease, weakness and muscle atrophy may occur in the hands, resulting in difficulty with carrying out fine motor skills."-National Institute of Neurological Disorders and Stroke. [https://www.ninds.nih.gov/Disorders/Patient-Caregiver-Education/Fact-Sheets/Charcot-Marie-Tooth-Disease-Fact-Sheet#3092\\_2](https://www.ninds.nih.gov/Disorders/Patient-Caregiver-Education/Fact-Sheets/Charcot-Marie-Tooth-Disease-Fact-Sheet#3092_2)
16. Tom Shakespeare, "The Sexual Politics of Disabled Masculinity" in *Sexuality and Disability*, Vol. 17, No. 1. 1999. 55.
17. Lenore Manderson, Susan Peake. "Men in Motion, Disability & the Performance of Masculinity" in *Bodies in Commotion, Disability & Performance*. (University of Michigan Press. Ann Arbor, MI. 2005.) 233.
18. *ibid.* 233-34.

## BIBLIOGRAPHY

- Agamben, Giorgio. *The Use of Bodies*. Translated by Adam Kotsko, 2015. Stanford, CA: Stanford University Press. 2015.
- Cheu, Johnson. "Performing Disability, Problematizing Cure" from *Bodies in Commotion, Disability & Performance*. edited by Carrie Sandahl & Philip Auslander. 135-146. Ann Arbor, MI: University of Michigan Press. 2005.
- Craenen, Paul. *Composing Under the Skin, The Music Making Body at the Composer's Desk*. Leuven, Belgium. Leuven University Press. 2014.
- Cusick, Suzanne G. "On the Musical Performances of Gender and Sex" in *Audible Traces: Gender, Identity, and Music*. Zürich, Switzerland. Carciofoli Verlagshaus. 1999
- De Souza, Jonathan. *Music at Hand: Instruments, Bodies, and Cognition*. New York, NY. Oxford University Press. 2017
- Fisher, George. Judy Lochhead. "Analyzing from the Body" in *Theory and Practice*. Vol.27. Music Theory Society of New York State. 2002. <https://www.jstor.org/stable/pdf/41054335.pdf?refreqid=excelsior:754ddcd350150016f46>
- d2ef22f728275
- Garland-Thomson, Rosemarie. "Dares to Stares Disabled Women Performance Artists & the Dynamics of Staring" from *Bodies in Commotion, Disability & Performance*. edited by Carrie Sandahl & Philip Auslander. 30-41. Ann Arbor, MI: University of Michigan Press. 2005.
- Hartenberger, Russell. *The Cambridge Guide to Percussion*. New York, NY. Cambridge University Press. 2016
- Honisch, Stefan. "'Re-narrating Disability' through Musical Performance". from *Journal of The Society for Music Theory*. (online) Volume 15, Number 3 & 4. August 2009. <http://www.mtosmt.org/issues/mto.09.15.3/mto.09.15.3.honisch.html>
- Howe, Blake. "Disabling Music Performance" from *The Oxford Handbook of Music and Disability Studies*. edited by Blake Howe, Stephanie Jensen-Moulton, Neil Lerner, Joseph Straus. 191-209. New York, NY: Oxford University Press. 2016.
- Huang, Aiyun. "Percussion Theater: the drama of Performance", from *The Cambridge Companion to Percussion*. edited by Russell Hartenberger. 128-142. New York, NY: Cambridge University Press. 2016.
- Jones, Amelia. *Body Art, Performing the Subject*. Minneapolis, MN: University of Minnesota Press. 1998
- Jullien, François. *The Impossible Nude*. Translated by Maev de la Guardia. Chicago, IL. University of Chicago Press. 2007.
- Kielian-Gilbert, Marianne. "Disabled Moves: Multidimensional Music Listening, Disturbing/Activating Differences of Identity", from *The Oxford Handbook of Music and Disability Studies*. edited by Blake Howe, Stephanie Jensen-Moulton, Neil Lerner, Joseph Straus. 371-402. New York, NY: Oxford University Press. 2016.
- Manderson, Lenore. Susan Peake. "Men in Motion Disability and the Performance of Masculinity". from *Bodies in Commotion, Disability & Performance*. edited by Carrie Sandahl & Philip Auslander. 230-242. Ann Arbor, MI: University of Michigan Press. 2005.
- Rebstock, Matthais. Roesner, Michael. *Composed Theatre; Aesthetics, Practices and Processes*. Chicago, IL: University of Chicago Press. 2012.
- Schick, Steven. *The Percussionist's Art, Same Bed, Different Dreams*. 1st print. Rochester, NY: University of Rochester Press. 2006.
- Shakespeare, Tom. "The Sexual Politics of Disabled Masculinity", from *Sexuality and Disability*. 17 (1): 53-64. 1999.
- Straus, Joseph. *Extraordinary Measures, Disability in Music*. New York, NY: Oxford University Press. 2011.
- . "Representing the Extraordinary Body: Musical Modernism's Aesthetics of Disability", from *The Oxford Handbook of Music and Disability Studies*. edited by Blake Howe, Stephanie Jensen-Moulton, Neil Lerner, Joseph Straus. 729-755. New York, NY: Oxford University Press. 2016.
- Szendy, Peter. *Phantom Limbs, On Musical Bodies*. translated by Will Bishop. United States: Fordham University Press. 2016.
- Tucker, Colin. Program notes for "remainder". <https://colintucker.wordpress.com/works/remainder/>
- Whiting, Bonnie. "The Speaking Percussionist as Storyteller", from *The Modern Percussion Revolution, Journeys of the Progressive Artist*. edited by Kevin Lewis & Gustavo Aguilar. 84-111. New York, NY: Routledge Publishing. 2014. ●

# Amadeo Roldán's *Ritmicas V and VI* (1930) and Edgard Varèse's *Ionisation* (1931): Issues of Low and High Art in the Pan-American Modernist Era of the Percussion Ensemble

by Haley Nutt

## Abstract

Amadeo Roldán's *Ritmicas V and VI* (1930) and Edgard Varèse's *Ionisation* (1931) codified a Pan-American modernist aesthetic that would serve as the primary catalyst for the percussion ensemble genre's continued development over the next few decades. Despite the significance of both works to the history of the percussion ensemble, however, *Ionisation* has received far more attention and praise than *Ritmicas V and VI* by percussion performers, theorists, and musicologists since its premiere. In this article, I utilize score analysis, archival research, and my own knowledge as a trained percussionist to argue that this imbalance in scholarship and recognition has resulted from the perpetuation of Eurocentric philosophies regarding the importance of primacy and prejudiced perceptions of "low" and "high" art that arose in the early twentieth century. Varèse's powerful status as an icon of musical modernism and his insistence on *Ionisation* as a work of "high art" has allowed the work to attain, and maintain, a canonic status within the milieu of Western art music; his denouncement of *Ritmicas V and VI* as "low art," on the other hand, has significantly impacted how the pieces have been perceived in the historiography of the percussion ensemble. By contextualizing the social and cultural circumstances surrounding the two compositions, I aim to demonstrate the equitable significance of both composers and their works in the development of the percussion ensemble genre during the Pan-American modernist period. My attempt at historical revisionism aligns with current efforts in the percussion community to become more diverse and inclusive.

**T**he first two decades of percussion ensemble literature illustrate a distinctively Pan-American approach to musical modernism in the early twentieth century. Building upon the radical ideas of musical futurists and avant-gardists, the percussion ensemble's earliest innovators in the United States and Latin America developed localized, yet creative

methods of percussion composition and performance, officially introducing the genre into Western society. The term "modernism" in this case describes the experimental, open-minded attitude of the genre's initial composers to explore the uncharted territory of percussion's stylistic possibilities and break away from musical traditions regarding sound, rhythm, and timbre. The earliest percus-

sion ensemble compositions of the 1930s were not only demonstrations of radical modernist ideologies, however; by combining the idiomatic rhythms and instruments of Latin American popular and folk musics with that of Western European symphonic percussion, these works more appropriately represent a diverse, yet distinctive Pan-American style. Motivated by the formation of the Pan-Amer-

ican Association of Composers (PAAC) in 1928 and a general desire to develop a musical style separate from that of Europe, composers in the United States, Cuba, and Mexico discovered in the percussion ensemble a new musical language.<sup>1</sup>

This strand of modernism – of a percussive, Pan-American flavor – represents just one modernist approach among many, as the term “modernism” itself is notorious for its imprecision and plurality of meaning.<sup>2</sup> Referring in its broadest sense to an artist’s self-conscious search for new means of artistic expression, the movement first took hold in the final decades of the nineteenth century as a response to new technologies, scientific innovations, and processes of industrialization that were dramatically transforming the Western world. By far the most impactful musical transformation at this time regarded the proliferation of popular and semi-popular musical genres in both live and recorded formats, made possible by recent inventions of the phonograph, radio, and microphone, as well as the emergence of new public venues catered to the lower and middle classes, such as cabarets and dance halls. The significant advancement of popular music, along with the cultural values it represented, had an immense impact on Western society and were swiftly set in opposition to more traditional forms of classical music. By the early twentieth century, cultural divisions between the so-called “low-brow” or “low art” forms – popular musical styles such as ragtime, jazz, and music theatre – and the “highbrow” or “high art” music of the concert hall – classical music, including modernist musics – were well-defined entities that reflected the social order in both Western Europe and the United States.<sup>3</sup> Although modernist compositional approaches would often freely incorporate authentic or stylized characteristics associated with popular or folk musics, again highlighting the multiplicity of modernism, the sociocultural associations of the movement to matters of “high” society, especially in terms of artistic purpose and audience demograph-

ic, continued to reinforce and play out Western societal distinctions between class, race, and taste.

This article aims to discuss two percussion works that not only demonstrate conflicting attitudes that characterized modernism’s nationalist and political charges, but also the degree to which notions of “high art” and “low art” persisted in the West during the interwar era: Amadeo Roldán’s *Ritmicas V and VI* (1930) and Edgard Varèse’s *Ionisation* (1931). The works sound quite different, but both showcase Latin American rhythms using percussion instruments now standard in the Western inventory and were composed to highlight the importance of percussion as a central component of musical modernism. The two works, together, codified a Pan-American modernist aesthetic that would serve as the primary catalyst for the percussion ensemble genre’s continued development over the next few decades; the trajectory of each work in terms of its reception and historicization, however, has been entirely different. As a result of “high art” connotations of musical modernism in the West and the perpetuation of power, primacy, and canonization in historical scholarship, the place of *Ionisation* within the history of the percussion ensemble is far superior to that of *Ritmicas V and VI*, so much so that Roldán and his contributions are often left out of percussion histories completely.

This article begins with a brief biographical sketch of the oft-overlooked Roldán and a theoretical overview of his two percussion-only works in order to situate the Cuban’s life and compositional ideologies within the *abrocubanismo* movement specifically and musical modernism more broadly. I then segue into a discussion of Roldán’s and Varèse’s involvement in the PAAC, illustrating the circumstances that inspired the Frenchman to incorporate Latin-esque timbres and rhythms into *Ionisation* and situate the work with the serious, legitimate, and “high art” niche of musical modernism. Finally, I reflect upon statements made by

Varèse and his biographers that helped to solidify the Frenchmen’s reputation as the “first” percussion ensemble composer, therefore skewing the history of the art form to his benefit. Varèse’s powerful status as an icon of musical modernism and his insistence on *Ionisation* as a work of “high art” has allowed the work to attain, and maintain, a canonic status within the milieu of Western art music; his denouncement of *Ritmicas V and VI* as “low art,” on the other hand, has significantly impacted how the pieces have been perceived in the historiography of the Western percussion ensemble. I ultimately demonstrate how Varèse’s attitude and the perpetuation of Western philosophies regarding primacy and colonialist perceptions of “low” and “high” art, coupled with the Roldán’s “othered” Cuban status and untimely death, has largely prevented *Ritmicas V and VI* from receiving adequate recognition in the historiography of the Western percussion ensemble. Through an illumination and reconciliation of historical facts and circumstances, the percussion community can work toward recognizing and admiring both composers and their works equally for their valuable contributions to the genre.

While the spirit of mechanization and the Futurist movement encouraged innovative and radical uses of percussion instruments and percussive sounds in Western Europe, modernist music in Cuba was largely prompted by the rise of the *abrocubanismo* movement.<sup>4</sup> During a period of tremendous political instability in the late-1920s, leftist artists and writers that made up the *grupo minorista* (minority group) realized the potential of Afro-Caribbean traditions as an agent of nationalization in the construction of an independent post-colonial Cuban culture. As a result, the *son* and *rumba*, the popular music genres previously associated with the black minority, were appropriated by the white-Hispanic majority as an important symbol of national identity.<sup>5</sup> To further legitimize and internationalize the *son* and *rumba* genres beyond

the popular music realm, classical Cuban composers began appropriating their rhythms and instruments into modernist works by the early 1930s. The ideologies surrounding this nationalist movement yielded Amadeo Roldán's *Ritmicas V and VI* (1930).

Amadeo Roldán Gardes, one of the founders of the *abrocubanismo* movement, was a renowned composer, conductor, and educator in Cuba. Although Roldán was first introduced to Cuban popular music through his mother, who was a *multa santiaguera* (mixed-blood faith healer), his friendship with Cuban novelist Alejo Carpentier inspired him additionally to investigate Afro-Cuban music, traditions, and rituals. Beginning in 1923, the two men regularly attended *santería* and *abakuá* ceremonies; Roldán's copious notes on the numerous melodic and rhythmic fragments would soon serve as the basis of his new compositional aesthetic.<sup>6</sup> From these and other encounters with Afro-Cuban culture, the two men and other intellectuals initiated the movement that would be known as *afrocubanismo*, firm in their belief that the incorporation of popular and folk musical traditions would contribute a new perspective on Cuban nationalism.<sup>7</sup>

Roldán's first compositions from the early 1920s show the strong influence of Impressionism, but as a result of his friendship with Carpentier and their shared interests in local musics, his compositional style slowly began to reflect nationalist ideas.<sup>8</sup> His first work demonstrating his ability to combine Cuban popular melodies with Western classical styles was *Obertura sobre tema cubanos* (*Overture on Cuban Themes*), which was premiered by the Havana Philharmonic on November 29, 1925.<sup>9</sup> Because the Havana orchestra typically performed standard symphonic works of the nineteenth century, the piece was somewhat controversial, with some critics claiming the harmonies were "excessively tortured."<sup>10</sup> As the first Afro-Cuban-inspired symphonic work performed in Cuba, however, the afrocubanists were thrilled; Car-

penter declared the performance one of the groundbreaking events of twentieth century Cuban musical history.<sup>11</sup> Perhaps the most controversial aspect of the piece was an extended percussion-only section in the third and movement titled "Fiesta negra," which features many of the same instruments and rhythms that he would later use in *Ritmicas V and VI*. In the following years, Afro-Cuban percussion instruments continued to serve an integral role in Roldán's development of an explicit *afrocubanismo* style. His chamber work *Danza negra* (1928) for voice, two clarinets, two violas, bongos, maracas, and cowbells, and his most famous ballet, *La rebambaramba* (1928), based on one of Carpentier's stories depicting the lower classes of Havana in early eighteenth-century Cuba, both feature percussion prominently in the incorporation and fusion of Cuban popular, folk, and ceremonial dances.<sup>12</sup>

*Ritmicas*, a suite of six short pieces for winds and percussion, is Roldán's most radical attempt to manipulate and transform Afro-Cuban rhythms within a Western modernist framework.<sup>13</sup> Unlike his earlier works that mostly retain the original forms and structures of such dances, *Ritmicas* illuminates the composer's interest to not only introduce Afro-Cuban style to the broader Cuban public, but also to reinterpret it for an international audience. While the first four *Ritmicas* are scored for flute, oboe, clarinet, bassoon, horn, and piano, the last two are scored entirely for Afro-Cuban percussion instruments: claves of various sizes, cowbell, maracas, quijada (jawbone), güiro, bongó, timbales, timpani, bombo (large, two-headed military drum), and marimbula (large, resonating box with plucked metal strips). The only instrument that implies Western European influence is the *timbales de orquesta*, or timpani, but its function is less pitch-centric than timbral or rhythmic.

Roldán's instructions and explanations regarding notation on the first page of both *Ritmicas V and VI* demonstrate the composer's attempts to explore the per-

formance practices of Cuban popular and folk musics in an authentic yet modernist manner.<sup>14</sup> For example, the composer utilizes four notehead styles to represent different timbres and playing styles in the bongo part: an "x"-shaped note is played on the rim of the instrument (i.e., a slap or edge tone), an unshaded diamond-shaped note is played in the center (muted or bass tone), a shaded circular note shape is played in the natural position (open tone), and a wavy line in place of a notehead refers to rubbing the index and middle finger across the drum head. These same general performance approaches are also applied to the timbales (of both the Latin and orchestral variety) and bombó parts. Roldán also notes that the güiro can be scraped with a *varilla*, or small rod, but also struck, a technique less common in contemporary Latin-influenced Western percussion works. The page also describes the types of beaters to be used on the various instruments, which can all be found or made from local materials; for example, the *cencerros*, or cowbell, can be struck with "a small hardwood log, more or less the thickness of a clave."<sup>15</sup> The flexibility regarding mallet implementation and the thorough instructions Roldán provides regarding how to play these instruments reveals the composer's familiarity with and appreciation of Cuban popular musics.

*Ritmica V* is essentially a study on the Cuban son; in just 109 measures, Roldán demonstrates how the rhythmic patterns associated with the genre can be layered, combined, divided, and disassembled without losing their Cuban integrity. The first half of the short work is played at a moderate *andante* in duple meter, the standard tempo and meter of a son, and features partial and full variations of *tresillo* (first half of the 3-2 son clave pattern) rhythms spread across the ensemble. Roldán utilizes these syncopated rhythms to create cyclic grooves that move over the barline, a common characteristic of Afro-Latin rhythmic patterns (Example 1).



A faster section commences at measure 51. Roldán labels this section, which continues to the end of the movement, “Montuno.” Although *montuno* has many meanings associated with Cuban music, Helio Oravio defines it as “final up-tempo section of a *son* that is semi-improvised and ends with a brash instrumental climax.<sup>16</sup> Here, Roldán takes into account the typical stylistic and rhythmic characteristics of the genre. For example, the opposing rhythms between the bongó and timbales in measures 74 to 87 indicate something more reminiscent of a duel

than a duo, as the instruments intertwine their complex, tripletized rhythms in a highly improvisatory manner, following the traditional rules of improvisation essential to *son* music.

The final section of the *montuno* changes from simple duple to compound duple to heighten the energy that continues to accelerate and push toward the end of the movement. As in earlier sections, the use of numerous ostinato patterns can make it difficult to discern a unified groove, but Roldán’s deliberate use of accents helps to clarify the underlying feel, which di-

vides the eighth notes of the 6/8 meter into groups of three rather than two, often emphasizing the first and last quarter notes within this division (Example 2). Despite a busier texture and faster pulse, the conventions of the *son* style, including syncopated accents, timbral effects, and a virtuosic approach to manipulating the rhythms, remain evident throughout the ensemble.

*Ritmica VI*, a composition of only 91 measures, evokes the sounds of a *rumba* as one might hear on the urban streets of Havana in the early twentieth century prior to its commercialization in the 1950s.<sup>17</sup> In contrast with the dynamically and texturally sectional form and style of *V*, *Ritmica VI* portrays one continuous development, as small rhythmic cells slowly morph into elaborate patterns and culminate in a loud, climactic ending. The opening ten measures of the piece are essentially a composite *rumba* clave pattern, most of which is supplied by the

Example 1: Amadeo Roldán - *Ritmicas V*, diffusion of eighth notes across ensemble, mm. 25–8.

This musical score, labeled Example 1, depicts the diffusion of eighth notes across an ensemble in measures 25 through 8. It features ten staves, each representing a different instrument. The notation is dense with eighth notes, many of which are marked with accents (>) and dynamic markings such as *sf* (sforzando) and *ff* (fortissimo). The time signature is 2/4. The score illustrates how a simple rhythmic motif is spread across the ensemble, creating a complex, layered texture.

Example 2: Amadeo Roldán - *Ritmicas V*, division of 6/8 into groups of three as outlined by accent patterns, mm. 95–6.

This musical score, labeled Example 2, shows the division of a 6/8 meter into groups of three eighth notes. It consists of ten staves. The time signature is 6/8. The notation features eighth notes grouped in threes, with accents (>) placed on the first and last notes of each group. This creates a rhythmic pattern that is characteristic of the *son* style. The score also includes dynamic markings like *sf* and *ff*, and various rhythmic notations such as asterisks and 'x' marks to indicate specific rhythmic patterns.

marimbula, with other instruments filling in gaps in the groove (Example 3). The occasional changes to a triplet meter further complicate the underlying rhythmic structure.

The texture steadily grows until the arrival of the final section at measure 70, at which point each of the eleven instruments has its own individual rhythm made up of eighth or sixteenth notes that subtly shifts every time the meter changes, making it difficult to discern where the time signature changes occur. The entire ensemble performs all or parts of a unison sixteenth-note rhythm at the fortissimo arrival point two measures from the end, which is perhaps the most uniform rhythmic demonstration of the entire composition. Although the formal structure of *Ritmica VI* is simpler than that of *V*, the piece demonstrates Roldán's ability to create rhythmic excitement and drive through the modernist metamorphosis of a single rhythm.

Following *Ritmicas*, Roldán continued exploring the intersections of Afro-Cuban and classical styles in chamber works with voice, including *Curujey* (1931) for

chorus, two pianos, and two percussion instruments, and *Motivos de son* (1934) for voice and chamber ensemble.<sup>18</sup> Unfortunately his compositional output slowed significantly after he was diagnosed with cancer in 1932. He continued sketching out future works and even developed an interest in the aural music traditions of Cuba's eastern provinces, but his work was cut short when he died in 1939 at the age of thirty-eight.<sup>19</sup> In just over a decade, Roldán helped to renew Cuba's interest in folk traditions by reconstructing Afro-Cuban rhythms in modernist art music, familiarizing Western composers to the richly intricate sounds and styles of Cuban music and dance. *Ritmicas V and VI* are perhaps Roldán's most enduring contributions to the *afrocubanismo* movement.

The efforts of the *grupo minorista* to internationalize Cuban nationalism by disseminating their Afro-Cuban heritage garnered the attention of many Americans and Western Europeans who sought alternative ways to frame their modernist ideas. In the United States specifically, attempts to mend political relationships

and foster cultural exchange between North America and Latin America were already in place at the turn of the twentieth century following the Spanish-American War, and the *afrocubanismo* movement provided additional incentive to collaborate further. The widely embraced "Pan-American" ideology of the time combined with the receptivity of American composers to learn more about Afro-Cuban musics led to the establishment of the Pan-American Association of Composers (PAAC) in 1928.

An outgrowth of The International Composers' Guild (1921–1927), which promoted performances of contemporary modernist works in New York from all over the Western world, the PAAC was instead focused exclusively on the interests of composers in the Americas. Its three founders, Edgard Varèse, Henry Cowell, and Carlos Chávez, all champions of musical modernism, hoped that the Association would lead to the "creation of a distinctive music of the Western Hemisphere" that would be publicized and appreciated all over the globe.<sup>20</sup> Although the organization was short-lived and consistently lacked adequate financial and public support, the various concerts of new music that the group presented in New York, Boston, Berlin, Paris, and Havana brought international exposure to Latin composers including Roldán and Alejandro Garcia Caturla.<sup>21</sup> The PAAC was a mutually beneficial enterprise for all involved; not only did it provide the first sponsorship of Latin American composers in the twentieth century, it was American modernist composers' first opportunity to engage with Afro-Latin instruments, rhythms, and styles in a more authentic manner. Furthermore, the association was the primary catalyst in the development of the percussion ensemble as a wholly new genre, and the near-simultaneous emergence of *Ritmicas V and VI* and *Ionisation*.

Varèse and Roldán were heavily involved in the PAAC, the former as the primary founder and first president in 1928, and the latter as the regional director for

Example 3: Amadeo Roldán - *Ritmicas 6*, composite rumba clave pattern, mm. 1–5.

The image displays a musical score for percussion instruments, titled 'Example 3: Amadeo Roldán - Ritmicas 6, composite rumba clave pattern, mm. 1–5'. The score is written in 2/4 time with a tempo marking of 112 mm. It consists of ten staves, each representing a different instrument. The instruments listed on the left are: Clave (aguda) and Clave (grave), Cencerros, Quijada and Güiro, Maracas, Bongó, Timbales cubanos, Timbales grandes, Bombó, and Marimbula or Contrabass (played pizzicato). The notation shows a complex, layered rhythmic pattern characteristic of a composite rumba clave. The first five measures are marked with a '5' in a box at the end of the staff, indicating the end of the example. Dynamics such as 'p' (piano) and 'mf' (mezzo-forte) are indicated throughout the score.

the West Indies beginning in 1929.<sup>22</sup> It is unlikely that the two ever met in person, however; less than a year after forming the organization, Varèse returned to France to present PAAC works by North and Latin American composers to Parisian audiences. There he discovered a city already enraptured by Latin culture as a result of the many Caribbean intellectuals and artists residing and performing in the area. Alejo Carpentier, Roldán's collaborator and confidant who now lived in Paris, befriended Varèse in the fall of 1928 and shared with him Roldán's orchestral scores to the two ballets based on Carpentier's librettos, *El milagro de Anaquillé* and *La Rebambaramba*.<sup>23</sup> Carpentier remarked that Varèse quickly developed "a weakness" for Roldán's orchestration, enthusiastically studying his utilization and musical notation of Afro-Cuban percussion instruments.<sup>24</sup> Varèse also rekindled his friendship with Heitor Villa-Lobos in October 1928, whom he had met during a visit to Paris a few years prior.<sup>25</sup> Villa-Lobos' music, particularly his set of *Chôros* (1920-29), further contributed to the Frenchman's interest in Brazilian and Cuban percussion instruments and techniques.<sup>26</sup> His exchanges with both Carpentier and Villa-Lobos deeply impacted Varèse's musical aesthetic in the final years of the 1920s, setting the groundwork for *Ionisation*.

*Ionisation* for thirteen percussionists is like many of the composer's previous works including *Hyperprism* (1922-3), *Intégrales* (1924-5), and *Arcana* (1925-7), as demonstrated by the use of highly complex variations and manipulations of rhythmic cells and the utilization of numerous percussion instruments to aid in the production of intense "sound mass" timbral effects. One rhythmic aspect of *Ionisation* that is not apparent in Varèse's earlier works, however, is the use of an underlying steady rhythmic pulse. As Stephanie Stallings has argued in her dissertation, the appearance of a regular pulse, not unlike the rhythmic drive of many Afro-Cuban musics, is a primitivist take on the music he en-

countered through Carpentier, Villa-Lobos, and PAAC concerts: in other words, the composer's appropriation of Latin rhythms is intended to create a "universal exoticism" that is removed from a specific time or place.<sup>27</sup> Further evidence of the influence of Latin composers on Varèse's new compositional direction is the work's instrumentation; in addition to typical Western orchestral instruments, various Chinese-derived instruments, and machine-like instruments including the anvil and siren, Varèse also employed many of the same Afro-Cuban instruments as Roldán. Varèse employed a güiro in *Arcana*, but *Ionisation* was his first work to include cowbell, bongos, claves, and maracas. His employment of a lion's roar also suggests a link to Afro-Cuban percussion technique; like the sound created by the rubbing technique in Roldán's bongó part in *Ritmicas V*, the lion's roar also uses friction to produce a similar timbre. Although a friction drum appeared in Varèse's compositions written prior to *Ionisation*, it is featured more prominently in this later work.

Despite their indisputable influence on *Ionisation*, Varèse was highly critical of the Afro-Cuban popular music styles that served as the primary motivator behind the *afrocubanismo* movement. As demonstrated by the prevalence of *son* and *rumba* rhythms in *Ritmicas V and VI*, Roldán and other Cuban composers understood the rhythms and instruments of popular music as an essential symbol of Cuban identity that could be applied and altered in various musical contexts. Varèse, however, believed that Cuban popular dance, with its connections to entertainment and black Cuban culture, was unsuitable as a musical source within the "high art" milieu of musical modernism. He later articulated his rigid understanding of the boundaries between low and high art in an article, writing that composers, "must draw a line between entertainment and art. Art is from the shoulders up. The other is from the hips down."<sup>28</sup> Although Varèse asserted in 1931 that Roldán handled "percussion with amazing skill," his

conceptions of low versus high art made it fairly easy to overlook the significance of *Ritmicas V and VI*, and insist that his own *Ionisation* was superior in its abstraction and avoidance of explicit folk rhythms.<sup>29</sup> Indeed, Varèse's biographer Odile Vivier claimed that he once remarked to her many decades later, "I know I am really the first to have written compositions for solo percussion."<sup>30</sup>

Other musicologists and percussionists throughout the twentieth century echoed Varèse's dismissal of Roldán's music on the basis of its folkloristic origins.<sup>31</sup> One of the only exceptions was the American music critic Alfred Frankenstein, who acknowledged the significance and primacy of Roldán's *Ritmicas V and VI* in a positive review of John Cage's performance of the work at Mills College in 1939 or 1940.<sup>32</sup> In his 1966 biography of Varèse, Fernand Ouellette references the affirmations made by Frankenstein, but reassures his readers that *Ritmicas V and VI* are "very minor" and "quite primitive pieces on folkloric rhythms," while *Ionisation* is "of course, the first work of pure music for percussion alone born in the West and not referring to any folklore."<sup>33</sup> Georges Charbonnier, another Varèse scholar, copies Ouellette's exact statement, in his 1970 *Entretiens avec Edgard Varèse*, again emphasizing why *Ionisation* should be recognized as the first legitimate percussion ensemble.<sup>34</sup> The first percussionist to analyze and discuss *Ritmicas V and VI* was Larry Dean Vanlandingham in his 1971 DMA dissertation, writing that they are "possibly the earliest extant works written for an ensemble of percussion instruments."<sup>35</sup> Two pages later, Vanlandingham admits that there is "little revolutionary about the instrumentation" because the timpani and bass drum were the only two orchestral instruments, while the remaining instruments were indigenous to Latin American music.<sup>36</sup> Matthew George, in his 1991 DMA dissertation, similarly criticizes *Ritmicas V and VI*, declaring the rhythms in the pieces "not difficult," and therefore unworthy of thorough analysis.<sup>37</sup>

Graciela Paraskevaïdis was one of the first scholars to thoroughly investigate the colonialist notions at play in the historiography of *Ritmicas V and VI* within Western music scholarship. In her 2002/2004 article “Edgard Varèse and His Relationships with Latin American Musicians and Intellectuals of His Time,” Paraskevaïdis argued that Eurocentrism was the primary motive behind the scholarly dismissal of Roldán’s percussion pieces:

Although under such a north-centric vision of the world, it is not possible even to imagine that something could have happened or could have been produced, created, invented, by ‘the other’ outside the boundaries of cultural centralism, and, although it seems perhaps meaningless for cultural purposes to find out who arrived at a goal first, it is simply a question of accepting a historical fact and of explaining to the cultural centralism of the northern hemisphere—always very eager to demonstrate it—that this fact took place in the ‘periphery.’<sup>38</sup>

Aesthetic characteristics of the two compositions aside, Paraskevaïdis insisted that Western scholars overlooked *Ritmicas V and VI* mainly because an “othered” composer on the periphery of the Western world wrote them. Richard Hall reiterated a similar sentiment in his 2008 DMA dissertation, but also pointed to the failure of Latin scholars to recognize *Ritmicas V and VI* as the true “first” percussion ensemble compositions as an additional problem.<sup>39</sup> He mentions that Alejo Carpentier was the first to write about *Ritmicas V and VI* as percussion-only pieces in his 1934 book, *La música en Cuba*, but Carpentier did not use words like “first” or “percussion ensemble.” Hall argued that the lack of such terminology was likely due to the Cuban’s unfamiliarity with the genre as a separate entity.<sup>40</sup> To build upon Hall’s argument, I contend that Carpentier, like other proponents of art music on the periphery of the Western world, was far less concerned with

the issue of primacy than his European modernist counterparts: pointing out whether or not a piece was the first of its kind was typically not a priority and thus not worthy of mention.

The timing and nature of both works’ premieres are also telling. Paraskevaïdis notes that *Ionisation* was premiered first, at New York’s Carnegie Hall on March 6, 1933, and in Havana, Cuba a month later.<sup>41</sup> Nicolas Slonimsky, an avid supporter of modernist musical developments in the United States and a close friend of Varèse, conducted the premiere. His autobiography contains an eloquent summary of the immense difficulty of the composition:

Dealing with the world of infinitesimal particles, *Ionisation* presented considerable problems to musicians unaccustomed to differential calculus. The metrical divisions were simple, but the rhythmic segments within them were asymmetric, and the players had a difficult time in encapsulating groups of five sixteenth-notes within the metrical unit of a single quarter-note, particularly where Varèse inserted sixteenth-note rests to replace certain notes of the quintol.<sup>42</sup>

Although percussionists with varying levels of professionalism played the premiere and subsequent performances of the work across the United States in the following months, the first recording project of *Ionisation* during May 1934 was executed by American composers rather than trained percussionists.<sup>43</sup> Varèse had originally enlisted members of the New York Philharmonic, but they deemed the piece too difficult, forcing the composer to acquire the assistance of emerging composers of new music affiliated with the PAAC who could quickly master the complex rhythms and unusual orchestration. This “star-studded ensemble” included Carlos Salzedo, Paul Creston, Wallingford Riegger, Henry Cowell, William Schuman, Albert Stoessel, Georges Barrère, Adolph Weiss, and Egon Krenton, with Varèse managing the sirens.<sup>44</sup> Despite their lack of percussion train-

ing, Slonimsky writes that the “Vare-sian asymmetry was child’s play” for the professional ensemble; fellow performer Schuman later commented that the success of the recording session launched Varèse international musical career.<sup>45</sup>

As Carol Oja has argued, Varèse had achieved a powerful, “god-like” status in New York by the mid-1920s as an icon of American, “high art” modernism, a reputation largely constructed and legitimized by music critic Paul Rosenfeld.<sup>46</sup> Although his public reception diminished somewhat when he relocated to France in 1928, many successful composers of the American contemporary music scene continued to revere Varèse for his legendary impact on modernism and were eager to support his latest endeavors upon his return.<sup>47</sup> With his image as a modernist genius already in place, Varèse was in an advantageous position to publicize *Ionisation* as a cornerstone of musical modernism, as well as a pioneering piece of percussion ensemble repertoire. By involving a group of powerful, skilled professionals in a recording of one of the first all-percussion compositions in Western music, Varèse solidified *Ionisation*’s ability to prosper within the milieu of serious, legitimate, “high art” culture.

In contrast, although *Ritmicas I* through *IV* were premiered in a PAAC concert in New York on March 10, 1931, the two percussion-only movements were not performed until 1939, the same year as Roldán’s death, in a concert that John Cage presented at the Cornish School in Seattle.<sup>48</sup> Unlike the distinguished composers who performed *Ionisation* in Carnegie Hall, Cage’s ensemble consisted of modern dancers, mostly women, who lacked professional musical training. The two pieces would then remain unheard until Paul Price included them on his University of Illinois percussion ensemble program on March 4, 1954.<sup>49</sup> The Cuban premiere of *Ritmicas V and VI* did not occur until 1960, a year after the Cuban Revolution and three decades after the works were completed.<sup>50</sup>

*Ionisation*, on the other hand, has been

performed frequently for eighty-five years and remains one of the most analyzed and well-documented compositions of percussion ensemble repertoire. It is available in four published versions and has been professionally recorded at least fifteen times in the last thirty years by various collegiate and professional percussion ensembles worldwide.<sup>51</sup> Despite Varèse's explicit borrowing of folk instruments and rhythms from the Afro-Cuban tradition, many twenty-first century percussionists have nuanced their analyses of *Ionisation* in ways that further downplay the authority of any one single culture on Varèse's compositional aesthetic. In his 2006 analysis of the piece, Steven Schick demonstrated that *Ionisation* was a demonstration of universal multiculturalism because it was composed at a time when "definitions of culture and society were meant to be inclusive and universalizing."<sup>52</sup> By combining instruments into three "groups of affinity" based on timbral similarities, Schick argued that instruments from different cultures can aptly speak each other's languages, in a way analogous to America's melting-pot of various cultural groups.<sup>53</sup> Although Schick's analysis is meant to be a celebration of American diversity and musical exploration, he negates Varèse's cultural context, particularly his close relationships with Latin intellectuals while he was composing *Ionisation* in Paris.

More recently, percussionist Michael Rosen has argued that the instruments in *Ionisation* are not culturally identifiable with Latin America, Asia, or Western Europe at all, but are simply "sound sources without cultural reference" that "ionize" in rhythmic, textural, and timbral ways to create forward motion throughout the piece.<sup>54</sup> While Rosen's analysis is an admirable attempt to further align Varèse's compositional style with musical Futurism and the scientific process of ionization, it presents the composer with too much autonomy, as if the piece were composed in a cultural vacuum. Varèse should certainly be recognized for his contribution to the burgeoning percus-

sion ensemble genre, but the similarities between *Ionisation* and *Ritmicas V and VI* in their instrumentation and rhythmic basis are not simply a coincidence. Because of Varèse's international influence as a French American composer and his assertion that Roldán was merely a folk composer of "low" art, subsequent scholars have maintained a similarly Eurocentric stance in discussions and analyses of both works. Such efforts have made it difficult for Roldán to posthumously attain sufficient recognition within music scholarship. For *Ritmicas V and VI* to be properly acknowledged as a progenitor of the percussion ensemble, a rethinking of historical circumstances that acknowledges the roles and effects of Eurocentrism, power, and privilege is necessary.

The kinds of racial and political issues surrounding the historiography of *Ritmicas V and VI* and *Ionisation* are a common thread throughout the nearly centennial history of the Western percussion ensemble. As I discuss in my dissertation, the stylistic and social norms of the genre have been dictated and governed by various powerful Western, white men throughout the twentieth and twenty-first centuries, leaving limited space for women or people of color to effectively contribute to the genre as performers, composers, or educators.<sup>55</sup> Although the percussion ensemble has developed into a legitimate institutionalized entity that is recognized by the larger Western art music community today, some would argue that it lacks the spirit of diversity and experimentation upon which the genre originally flourished. I hope that my attempt to illuminate and reinterpret historical circumstances, here and in my larger dissertation project, encourages percussionists and scholars to celebrate the stylistic, social, and cultural diversity of the percussive art form, both as it has existed in the past and manifests in various cultural forms around the globe today. I believe that a revised history that equally recognizes the contributions of Roldán and Varèse aligns with, and even strengthens, the percussion community's continued efforts to become more diverse

and inclusive.

## END NOTES

1. The concept of Pan-Americanism as it relates to Mexican, Cuban, and U.S. composers within the PAAC was first explored by Stephanie Stallings in her dissertation, "Collective Difference: The Pan-American Association of Composers and Pan-American Ideology in Music, 1925-1945." Her investigation of 1930s percussion ensemble repertoire composed and performed by the PAAC contributed significantly to my own understanding of the genre's earliest styles and functions. Stephanie Stallings, "Collective Difference: The Pan-American Association of Composers and Pan-American Ideology in Music, 1925-1945," (PhD diss., Florida State University, 2009).
2. My understanding of modernism was primarily persuaded by arguments made in the following texts: Joseph Auner, *Music in the Twentieth and Twenty-First Centuries* (New York: W.W. Norton and Company, 2013); Carol Oja, *Making Music Modern: New York in the 1920s* (Oxford: Oxford University Press, 2000).
3. Although "highbrow" and "lowbrow" were the original terms in use by the early 1900s, both refer to phrenology and are thus bound up in problematic and false understandings of race and human physiology. Therefore, the terms I will use in the remainder of this paper are simply "low art" and "high art." For more background regarding modernism and the cultural hierarchies of high and low art, see: Ronald Schleifer and Benjamin Levy, "The Condition of Music": Modernism and Music in the New Twentieth Century" in *The Cambridge History of Modernism*, ed. By Vincent Sherry (Cambridge: Cambridge University Press, 2017), 289-306; Lawrence W. Levine, *The Emergence of Cultural Hierarchy in America* (Cambridge: Harvard University Press, 1990).
4. Futurism was a radical offshoot of modernism associated with Italian artists and philosophers in the 1910s. Many percussionists know Luigi Russolo, an Italian Futurist painter, whose *intonarumori*, or noise-intoners, were created in an attempt to incorporate the powerful, noise-filled soundscapes

- of modernity, machinery, and war into musical compositions. Although the movement was short-lived, Russolo's desire to move beyond the timbral and rhythmic capabilities of preexisting instruments was immensely influential on later Western composers. The *afrocubanismo* movement is discussed at length in: Robin Moore, "Poetic, Visual, and Symphonic Interpretations of the Cuban Rumba: Toward a Model of Integrative Studies," *Lenox Avenue: A Journal of Interarts Inquiry* 4 (1998): 98–9.
5. I recognize that *afrocubanismo* arose from problematic conceptualizations of black Cuban culture by white Cubans in a country with racist policies and various political and economic disparities between the two ethnic groups. While I intend to investigate these circumstances further in future research, this article will mostly focus on the reception and understanding of Cuban modernism in the United States. Stallings, "Collective Difference," 20–1.
  6. Robin Moore, *Nationalizing Blackness: Afrocubanismo and Artistic Revolution in Havana, 1920–1940* (Pittsburgh: University of Pittsburgh Press, 1997), 203.
  7. While many Latin American composers and critics attempted to resist nationalist sentiments in favor of cosmopolitan universalism, the *afrocubanismo* was a unique ideology within Pan-Americanism that worked to legitimize a new Cuban identity across the Americas and internationally. Carol A. Hess, *Representing the Good Neighbor: Music, Difference, and the Pan American Dream* (Oxford: Oxford University Press, 2013), 5–6.
  8. Hall, "Development of the Percussion Ensemble," 11.
  9. Moore, *Nationalizing Blackness*, 203–4.
  10. Moore, *Nationalizing Blackness*, 204.
  11. Alejo Carpentier, *Music in Cuba*, ed. Timothy Brennan, trans. Alan West-Durán, Cultural Studies of the Americas, Volume 5 (Minneapolis: University of Minnesota Press, 2001), 271.
  12. Hall, "Development of the Percussion Ensemble," 12–3.
  13. Moore, *Nationalizing Blackness*, 204.
  14. Amadeo Roldán, *Ritmica No. 5 and Ritmica No. 6* (New York: Southern Music Publishing Co. Inc, 1967), 3.
  15. Roldán, *Ritmica No. 5 and Ritmica No. 6*, 3.
  16. Helio Oravio, *Cuban Music from A to Z* (Durham: Duke University Press, 2004), 141.
  17. Stallings, "Collective Difference," 31.
  18. Hall, "Development of the Percussion Ensemble," 13.
  19. Hall, "Development of the Percussion Ensemble," 13; Moore, *Nationalizing Blackness*, 204.
  20. Deane L. Root, "The Pan American Association of Composers (1928–1934)," *Anuario Interamericano de Investigacion Musical* 8 (1972): 51.
  21. Root, "The Pan American Association of Composers," 52–9.
  22. Root, "The Pan American Association of Composers," 52.
  23. There is a possibility that Varèse also corresponded with Roldán via letters, but such evidence is only briefly mentioned in passing by Italian composer Luigi Nono in a 1950 interview. Alejo Carpentier, *Varèse Vivant* (Paris: Le Nouveau Commerce), 21. Laurent Fenyrou, *Luigi Nono: écrits* (Paris: Christian Bourgeois, 1993), 49.
  24. Alejo Carpentier, *Varèse Vivant*, 21. Quoted in Graciela Paraskevaïdis, "Edgard Varèse and His Relationships With Latin American Musicians and Intellectuals of His Time," *Contemporary Music Review* 23, no. 2 (June 2004): 7–8.
  25. It is difficult to specify exactly when Varèse and Villa-Lobos first met. Villa-Lobos' first trip to Paris took place between July 1923 and December 1924, and the second from December 1926 to July 1929. Although Varèse spent the majority of the decade in the United States, he did take short trips to Paris, so it is possible that the two crossed paths during Villa-Lobos' first Parisian stay. David P. Appleby, *Heitor Villa-Lobos: A Life (1887–1959)* (Lanham, Maryland: The Scarecrow Press, 2002), 65–78.
  26. Carpentier, *Varèse Vivant*, 21–3.
  27. Stallings, "Collective Difference," 34.
  28. Dieter A. Nanz, *Edgard Varèse: die Orchesterwerke* (Berlin: Lukas Verlag, 2003), 57. Quoted in Stallings, "Collective Difference," 33.
  29. Zoila Gómez, *Amadeo Roldán* (La Habana, Cuba: Editorial Arte y Literatura, 1977), 85. Quoted in English by Paraskevaïdis, "Varèse," 11.
  30. Odile Vivier, *Varèse* (Paris: Editions du Seuil, 1973), 93. Quoted in Paraskevaïdis, "Varèse," 11 and Stallings, "Collective Difference," 33.
  31. Fernand Ouellette, *Edgard Varèse* (Paris: Segher, 1966); Georges Charbonnier, *Entretiens avec Edgard Varèse* (Paris: Pierre Belfond, 1970); Larry Dean Vanlandingham, "The Percussion Ensemble: 1930–1945" (DMA diss. Florida State University, 1971); Matthew George, "An Examination of Performance Aspects of Two Major Works for Percussion Ensemble: *Toccata* by Carlos Chávez and *Cantata para América mágica* by Alberto Ginastera: a Lecture Recital, Together with Four Recitals of selected works by I. Stravinsky, R. Vaughan Williams, W.A. Mozart, V. Persichetti, and P. Hindemith," (DMA diss., University of North Texas, 1991).
  32. Paraskevaïdis cites Frankenstein as one of the earliest individuals to recognize *Ritmicas V and VI* as the first percussion ensemble but does not provide a source. Alfred Frankenstein wrote reviews in the *San Francisco Chronicle* of Cage's concerts on July 27, 1939 and July 18, 1940, and it is likely that one or both of these concerts included the movements. Paraskevaïdis, "Edgard Varèse," 11; Lita E. Miller, "Cultural Intersections: John Cage in Seattle (1938–1940)," *John Cage: Music, Philosophy, and Intention, 1933–1950*, edited by David W. Patterson (New York: Routledge, 2002), 71–2, 80.
  33. Ouellette, *Edgard Varèse*, 119. Quoted in Paraskevaïdis, "Edgard Varèse," 12.
  34. Charbonnier, *Entretiens avec Edgard Varèse*, 145. Quoted in Paraskevaïdis, "Edgard Varèse," 12.
  35. Vanlandingham refers to the *bombó* as an orchestral drum, even though they are two separate instruments. Vanlandingham, "The Percussion Ensemble: 1930–1945," 7.
  36. Vanlandingham, "The Percussion Ensemble: 1930–1945," 9.
  37. George, "An Examination of Performance Aspects of Two Major Works for Percussion Ensemble," 8.
  38. The article was originally published in Spanish in *Revista musical chilena* in December 2002 and translated into English in June 2004. Paraskevaïdis, "Edgard Varèse," 11.
  39. Hall, "Development of the Percussion En-

- semble," 15.
40. Carpentier, *Music in Cuba*, 274.
41. Paraskevaïdis, "Edgard Varèse," 9.
42. Nicolas Slonimsky, *Perfect Pitch: An Autobiography*, edited by Electra Slonimsky Yourke (New York: Schirmer Trade Books, 2002), 125.
43. Heine and Steffens, "'Ionisation,'" 52.
44. Slonimsky, *Perfect Pitch*, 125; Heine and Steffens, "'Ionisation,'" 52.
45. Slonimsky, *Perfect Pitch*, 138–9; Nicholas Martinez, "To the Beat of His Own Drum: The Reception and Influence of Edgard Varèse's Ionisation," *The Classic Journal*, November 4, 2016, accessed June 19, 2019, <http://theclassicjournal.uga.edu/index.php/2016/11/04/to-the-beat-of-his-own-drum-the-reception-and-influence-of-edgard-vareses-ionisation/>.
46. Oja, "Creating a God: The Reception of Edgard Varèse," in *Making Music Modern*, 25–44.
47. As Oja discusses at the end of her chapter, the coverage of *Ionisation's* premiere by music critics was slight and less than favorable. This is perhaps another reason that Varèse looked to his composer colleagues to produce a high-quality recording that could preserve and uphold his agenda. Oja, "Creating a God," 43–4.
48. Stallings, "Collective Difference," 31; Miller "Cultural Intersections," 61.
49. Paraskevaïdis, "Edgard Varèse," 9.
50. Paraskevaïdis, "Edgard Varèse," 9.
51. Editions include the 1934 New Music Orchestra Series version, the 1955 version included in Morris Goldenberg's *Modern school for Snare Drum* (Alfred Publishing), the 1958 Recordi version, and the 1967 Colfranc version. All four editions are available for purchase. Fifteen recordings of *Ionisation* are discussed and analyzed in Erik Heine and David Steffens 2009 *Percussive Notes* article. Erik Heine and David Steffens, "'Ionisation': A Comparative Analysis of Published Editions and Recordings," *Percussive Notes* 47, no. 3 (June 2009): 52.
52. Steven Schick, *The Percussionist's Art: Same Bed, Different Dreams* (Rochester, NY: University of Rochester Press, 2006), 36..
53. Schick, *The Percussionist's Art*, 39–41.
54. Michael Rosen, "Terms Used in Percussion: 'Ionisation,'" *Percussive Notes* 53, no. 3 (July 2015): 62.
55. Haley J. Nutt, "The Collegiate Percussion Ensemble: Institutional and Gendered Practices in the American Academy" (PhD Diss., Florida State University, 2020).

## REFERENCES

- Appleby, David P. *Heitor Villa-Lobos: A Life (1887–1959)*. Lanham, Maryland: The Scarecrow Press, 2002.
- Auner, Joseph. *Music in the Twentieth and Twenty-First Centuries*. New York: W.W. Norton and Company, 2013.
- Carpentier, Alejo. *Music in Cuba*, edited by Timothy Brennan. Translated by Alan West-Durán. Cultural Studies of the Americas, Volume 5. Minneapolis: University of Minnesota Press, 2001.
- Fenyrou, Laurent. *Luigi Nono: écrits*. Paris: Christian Bourgois, 1993.
- George, Matthew. "An Examination of Performance Aspects of Two Major Works for Percussion Ensemble: *Toccata* by Carlos Chávez and *Cantata para América mágica* by Alberto Ginastera: a Lecture Recital, Together with Four Recitals of selected works by I. Stravinsky, R. Vaughan Williams, W.A. Mozart, V. Persichetti, and P. Hindemith." DMA diss. University of North Texas, 1991.
- Hall, John Richard. "Development of the Percussion Ensemble through the Contributions of the Latin American Composers Amadeo Roldán, José Aldévol, Carlos Chávez, and Alberto Ginastera." DMA diss. Ohio State University, 2008.
- Heine, Erik and David Steffens. "'Ionisation': A Comparative Analysis of Published Editions and Recordings." *Percussive Notes* 47, no. 3 (June 2009): 52–6.
- Hess, Carol A. *Representing the Good Neighbor: Music, Difference, and the Pan American Dream*. Oxford: Oxford University Press, 2013.
- Levine, Lawrence W. *The Emergence of Cultural Hierarchy in America*. Cambridge: Harvard University Press, 1990.
- Martinez, Nicholas. "To the Beat of His Own Drum: The Reception and Influence of Edgard Varèse's Ionisation." *The Classic Journal*, November 4, 2016. Accessed June 19, 2019, <http://theclassicjournal.uga.edu/index.php/2016/11/04/to-the-beat-of-his-own-drum-the-reception-and-influence-of-edgard-vareses-ionisation/>.
- Miller, Lita E. "Cultural Intersections: John Cage in Seattle (1938–1940)." *John Cage: Music, Philosophy, and Intention, 1933–1950*, edited by David W. Patterson. New York: Routledge, 2002.
- Moore, Robin. *Nationalizing Blackness: Afro-cubanismo and Artistic Revolution in Havana, 1920–1940*. Pittsburgh: University of Pittsburgh Press, 1997.
- Moore, Robin. "Poetic, Visual, and Symphonic Interpretations of the Cuban Rumba: Toward a Model of Integrative Studies." *Lenox Avenue: A Journal of Interarts Inquiry* 4 (1998): 93–112.
- Nutt, Haley Jo. "The Collegiate Percussion Ensemble: Institutional and Gendered Practices in the American Academy." PhD diss. Florida State University, 2020.
- Oja, Carol. *Making Music Modern: New York in the 1920s*. Oxford: Oxford University Press, 2000.
- Oravio, Helio. *Cuban Music from A to Z*. Durham: Duke University Press, 2004.
- Paraskevaïdis, Graciela. "Edgard Varèse and His Relationships With Latin American Musicians and Intellectuals of His Time." *Contemporary Music Review* 23, no. 2 (June 2004): 3–17.
- Root, Deane L. "The Pan American Association of Composers (1928–1934)." *Anuario Interamericano de Investigacion Musical* 8 (1972): 49–70.
- Rosen, Michael. "Terms Used in Percussion: 'Ionisation.'" *Percussive Notes* 53, no. 3 (July 2015): 58–63.
- Schick, Steven. *The Percussionist's Art: Same Bed, Different Dreams*. Rochester, NY: University of Rochester Press, 2006.
- Schleifer, Ronald, and Benjamin Levy. "The Condition of Music": Modernism and Music in the New Twentieth Century." *The Cambridge History of Modernism*, edited by Vincent Sherry. Cambridge: Cambridge University Press, 2017.
- Slonimsky, Nicholas. *Perfect Pitch: An Autobiography*. Edited by Electra Slonimsky Yourke. New York: Schirmer Trade Books, 2002.
- Stallings, Stephanie. "Collective Difference:

The Pan-American Association of Composers and Pan-American Ideology in Music, 1925-1945." PhD diss. Florida State University, 2009.

Vanlandingham, Larry Dean. "The Percussion Ensemble: 1930-1945." DMA diss. Florida State University, 1971. ●



# Percussive Notes Online Research Edition

## GUIDELINES FOR SUBMISSION

- The Editorial Board will accept submissions for papers that address topics relating to scholarly areas including, but not limited to, historical musicology, critical theory, aesthetics, musical analysis, performance practice, interdisciplinary studies, ethnomusicology, and interviews. Submissions must have a primary focus on percussion music, performance, or instruments in order to be considered.

- Essays should be of a broader scope than those published in *Percussive Notes* and must make substantial and original contributions to the existing literature of their subject areas. A word count of at least 5,000 words (excluding notes and references) is suggested; however, the Editorial Board also welcomes submissions in creative formats that instead substantiate advanced perspectives by innovative means (e.g. graphics, multi-media, etc.).

- Authors are invited to explore the benefits that electronic publication provides in the presentation of research, and supplementary media, such as audio or visual examples, are encouraged when applicable; however, the author must supply source material that is able to be embedded in a PDF file—internet links are not acceptable. It is the responsibility of the author to secure all rights for the use of borrowed materials.

- Though exceptions may be made in rare circumstances, submissions should not be previously published. Adaptations of theses/dissertations are acceptable; however, unrevised academic documents will not be considered and should instead be submitted to the PAS Online Thesis/Dissertation Repository.

- Essays should be formatted according to *The Chicago Manual of Style*. For detailed instructions on the preferred formatting for papers, [click here](#).

- Submissions will be blind-reviewed by the Editorial Board and outside referees. *Please do not include any indicators in the essay that may compromise the anonymity of the author.*

- The Editorial Board will not review submissions currently under consideration by other journals or publishers.

To submit an essay for consideration, send a Microsoft Word file of the essay, a 200-300 word abstract, and any media to be included to Sean Millman, Editor-in-Chief at [scmillman00@gmail.com](mailto:scmillman00@gmail.com).