

10-10-2020

## Examination of the evolution of multi-percussion

Thomas Alexander Robertson  
*Edith Cowan University*

Follow this and additional works at: <https://ro.ecu.edu.au/theses>



Part of the [Music Commons](#)

---

### Recommended Citation

Robertson, T. A. (2020). *Examination of the evolution of multi-percussion*. <https://ro.ecu.edu.au/theses/2366>

This Thesis is posted at Research Online.  
<https://ro.ecu.edu.au/theses/2366>

# Edith Cowan University

## Copyright Warning

You may print or download ONE copy of this document for the purpose of your own research or study.

The University does not authorize you to copy, communicate or otherwise make available electronically to any other person any copyright material contained on this site.

You are reminded of the following:

- Copyright owners are entitled to take legal action against persons who infringe their copyright.
- A reproduction of material that is protected by copyright may be a copyright infringement. Where the reproduction of such material is done without attribution of authorship, with false attribution of authorship or the authorship is treated in a derogatory manner, this may be a breach of the author's moral rights contained in Part IX of the Copyright Act 1968 (Cth).
- Courts have the power to impose a wide range of civil and criminal sanctions for infringement of copyright, infringement of moral rights and other offences under the Copyright Act 1968 (Cth). Higher penalties may apply, and higher damages may be awarded, for offences and infringements involving the conversion of material into digital or electronic form.

# **Examination of the Evolution of Multi-percussion**

This dissertation is presented for the degree of  
Master of Arts (Performing Arts)

**Thomas Alexander Michael Robertson**

Supervisors: Helen Rusak (Principal) Philip Everall (Associate) Tim White (Assistant)

Western Australian Academy of Performing Arts  
Edith Cowan University

**2020**

# Declaration Page

I certify that this thesis does not, to the best of my knowledge and belief:

- incorporate without acknowledgment any material previously submitted for a degree or diploma in any institution of higher education;
- contain any material previously published or written by another person except where due reference is made in the text of this thesis; or
- contain any defamatory material;



Date: 20/10/2020

# Acknowledgments

I would like to express my sincere appreciation to the many persons who so generously contributed their time, knowledge, and support during the preparation and completion of this thesis. Special thanks are extended to my supervisors Helen Rusak, Philip Everall and Tim White.

Special appreciation is given to Brian Maloney and Alex Timcke who helped me prepare for my recital and performances surrounding this masters.

Lastly, I am extremely thankful to my parents for encouraging my musical and educational pursuits and all the support they have given me over the many years of my studies.

# Table of Contents

Acknowledgments.....	ii
Table of Contents.....	iii
Abstract.....	1
1. Introduction .....	2
1.1 Topic overview .....	2
1.2 Aims of the project.....	4
2. Methodology.....	5
3. Early use of percussion .....	9
3.1 The use of percussion in the orchestra before the start of the twentieth century.....	9
3.1.1 New uses of percussion in orchestral works.....	10
3.1.2 Percussion as a feature in orchestral works .....	12
3.2 Early drum kit and its influence .....	14
3.2.1 New Orleans brass bands.....	14
3.2.2 First semblance of a drum kit .....	15
3.3 Influence on the writing of multi-percussion .....	16
4. Multi-percussion in chamber music works .....	17
4.1 Multi-percussion as a part of a chamber work.....	17
4.1.1 The first multi-percussion setups.....	17
4.1.2 Alternative ways of writing for multi-percussion .....	20
4.2 Percussion ensemble music .....	21
4.2.1 <i>Ritmica No.5 and No.6</i> (1930).....	21
4.2.2 <i>Ionisation</i> (1931) .....	22
4.2.3 John Cage's percussion ensemble.....	24
4.3 Soloistic multi-percussion works .....	25
4.3.1 <i>Concerto for Percussion and Small Orchestra</i> (1932) .....	25
4.3.2 <i>Sonata for Two Pianos and Percussion</i> (1937).....	26
5. First generation of solo multi-percussion works .....	28
5.1 John Cage .....	28
5.2 The start of solo multi-percussion .....	29
5.2.1 Cage's <i>27' 10.554" for a Percussionist</i> (1955).....	29
5.2.2 Stockhausen's <i>Zyklus</i> (1959) .....	30
5.2.3 Morton Feldman's <i>The King of Denmark</i> (1965).....	32

5.2.4 Wuorinen's <i>Janissary Music</i> (1966) .....	34
5.3 Percussionist's influence .....	35
6. Emergence of virtuosi .....	36
6.1 Max Neuhaus .....	36
6.2 Jean-Pierre Drouet .....	37
6.2.1 Vinko Globokar's <i>Toucher</i> (1973) .....	38
6.3 Sumire Yoshihara .....	39
6.3.1 Norio Fukushi's <i>Ground</i> (1973) .....	40
6.4 Sylvio Gualda .....	41
6.4.1 Xenakis's <i>Psappha</i> (1975) .....	41
6.4.2 Xenakis's <i>Rebonds</i> (1987-89) .....	42
6.5 Issues with the first generation .....	43
7. The second generation of solo multi-percussion works .....	44
7.1 Exhaustive works .....	44
7.1.1 Per Nørgård's <i>I Ching</i> (1982) .....	45
7.2 Limited instrumentation works .....	47
7.2.1 Frederic Rzewski's <i>To the Earth</i> (1985) .....	47
7.2.2 Brian Ferneyhough's <i>Bone Alphabet</i> (1991) .....	49
7.3 Multi-drum works .....	51
7.3.1 Ishii Maki's <i>Thirteen Drums</i> (1985) .....	52
7.3.1.1 Atsushi Sugahara .....	53
7.3.2 Michael Gordon's <i>XY</i> (1997) .....	53
7.4 Influence of the second generation of multi-percussion works .....	54
8 Conclusion .....	56
Appendix 1 .....	59
Bibliography .....	61

# Abstract

The twentieth century belonged to percussion. In previous centuries, percussion performed a supporting function with its primary role being to accentuate chordal changes and reinforce the beat. By the late nineteenth and early twentieth centuries orchestras expanded in size and instrumentation with percussion taking on a more prominent role, particularly in the works of composers such as Debussy, Stravinsky, and Mahler. It was at this moment in time that percussion assumed a new and unique role to express changes in colour and timbre, alongside its rhythmic function. The percussion repertoire of the twentieth century reflected the *Zeitgeist*, and composers exploited the creative potential of this sonic and textural palette. This led to the development of various settings of multi-percussion; orchestral, chamber, percussion ensembles, and solo multi-percussion works. This thesis will examine this development throughout the twentieth century focusing on, and clearly defining, the impetus of each setting of multi-percussion composition. It questions the assumption that *L'histoire du soldat* was the flashpoint in the development of multi-percussion and finds that there were a myriad of factors that contributed to the rapid expansion of the art form.



# 1. Introduction

## 1.1 Topic overview

Percussion dominated the musical fabric of Western Art Music in the twentieth century. Previously used to punctuate harmony and reinforce rhythm in orchestral music, the vast array of textures and timbres that percussion can produce saw this family of instruments develop a new distinctive voice. Composers such as Stravinsky, Cage, and Edgard Varese plumbed the depths of possibilities inherent in the percussion section and thrust it into the spotlight.

This new era required a new mindset; a different approach to writing for percussion. Rather than limiting individual players to single instruments, an array of percussion instruments could be grouped together and played by one musician. In Stravinsky's *L'histoire du soldat*<sup>1</sup> (referred from here on as *L'histoire*), the percussionist was required to play bass drum, snare drum, marching drum, tambourine, triangle, and cymbals concurrently. This unprecedented scoring necessitated new approaches to notation, instrument setup, playing technique, and conceptualisation of the percussionist's role. Thus "multi-percussion" as its own entity was born.

Following this work multi-percussion writing began to evolve outside of chamber music due to a variety of influences including:

- New roles for percussion
- Access to instruments
- New percussionists and percussion education
- Processional multi-percussionists
- Changes in compositional process

These influences combined to create a new world to explore for the next generation of composers and percussionists which led to countless new works written for orchestra, opera, ballet, and even solo repertoire for multi-percussion. Although *L'histoire* is the first work to contain such a setup, it was not as significant an influence on the development of percussion compositions as it originally appears to be. This raises a clear question, if the development of

---

<sup>1</sup> Igor Stravinsky, *Histoire du Soldat* (London: J. & W. Chester, Ltd, 1918)

multi-percussion does not stem directly from *L'histoire* and its effect on multi-percussion works then how and why did it develop at such a rapid pace over twentieth century to become a core part of modern percussion repertoire alongside timpani, snare drum and keyboard percussion.

## 1.2 Aims of the project

To address the thesis question, I will explore how the genre of multi-percussion developed into one of the cornerstones of percussion literature alongside keyboard instruments, snare drum, and timpani. In addition to this I will address the key influences that surround the development of multi-percussion to fully explore this art style. There are four clear settings that multi-percussion was being written for throughout the century:

- Orchestral works.
- Chamber works.
- Ensemble works.
- Solo works.

These will be thoroughly examined, to identify how the following influences helped shape the different settings of multi-percussion:

- Late nineteenth and early twentieth century composers use of percussion in the orchestra.
- Jazz and the drum kit.
- Percussion ensemble works of Roldan, Varese, and John Cage.
- Percussion virtuosi; Neuhaus, Drouet, and Steven Schick.

This project will identify how these major influences in the development of multi-percussion came together to launch multi-percussion to the forefront of creativity.<sup>2</sup> The aim is to combine the research in the field to thoroughly explore the impetus behind these different settings and how that has led to the world of multi-percussion that is present in the twenty-first century.

---

<sup>2</sup> Colby Snider, "Suggested Audition Repertoire," The University of Tennessee at Martin, accessed April 4, 2018, [https://www.utm.edu/departments/percussion/audition\\_repertoire.php](https://www.utm.edu/departments/percussion/audition_repertoire.php).

## 2. Methodology

The original hypothesis was to explore how significant an impact *L'histoire* made on the development of multi-percussion throughout the twentieth century. However, early in the research process it became clear that this work was not as influential on the rest of this style as was originally hypothesised. (This will be explored in 4.1.1.1). Once the realisation that *L'histoire* did not continue to directly influence multi-percussion's growth an important question was raised: why did this style of writing develop in such a substantial way through the twentieth century?

This question has caused the research to become focused on the overarching influences that dramatically affected the way multi-percussion was being written throughout the century. Database research and a literature review unearthed the range of secondary sources available on the topic, however, although there is a significant body of literature it became evident that academic research on the topic was patchy and sometimes non-existent. Seminal scholarship in the field was found in Steve Schick's *The Percussionist's Art: Same Bed Different Dreams*,<sup>3</sup> *The Modern Percussion Revolution: Journeys of the Progressive Artist* edited by Kevin Lewis,<sup>4</sup> *The Cambridge Companion to Percussion* edited by Russell Hartenberger,<sup>5</sup> and Louise Devenish's *Global Percussion Innovations: the Australian Perspective*.<sup>6</sup>

In the process of exploring the works throughout the twentieth century, again the sources were limited. Whilst not entirely credible as peer reviewed articles Percussive Arts Society (PAS) articles, program notes, and biographies provide excellent ephemeral and contemporaneous debates on the multi-percussion compositions. Many of the PAS articles are written by leaders in the percussion field, including Jan Williams, and provide insights into the mindset of percussionists and composers during the twentieth century.

---

<sup>3</sup> Steven Schick, *The Percussionist's Art: Same Bed Different Dreams* (New York: University of Rochester Press, 2006).

<sup>4</sup> Kevin Lewis and Gustavo Aguilar, eds., *The Modern Percussion Revolution: Journeys of the Progressive Artist* (New York: Routledge, 2014).

<sup>5</sup> Russell Hartenberger, ed., *The Cambridge Companion to Percussion* (United Kingdom: Cambridge University Press, 2016).

<sup>6</sup> Louise Devenish, *Global Percussion Innovations: The Australian Perspective* (United Kingdom: Routledge, 2018).

The sources by Schick, Lewis and Hartenberger, in addition to the PAS articles have clearly pointed towards the works and soloists that should be discussed in relation to this topic. The works selected to be explored in this dissertation are the first works to be composed in the seminal trends that occurred during the development of the genre, this method was chosen as it was the most effective way to focus the topic in this thesis.

The key works that have been identified by the sources are:

- *L'histoire du soldat* by Igor Stravinsky (1918)
- *La création du monde* by Darius Milhaud (1922)
- *Concerto for Percussion and Small Orchestra* by Darius Milhaud (1932)
- *27' 10.554" for a Percussionist* by John Cage (1956)
- *Zyklus* by Karlheinz Stockhausen (1962)
- *The King of Denmark* by Morton Feldman (1964)
- *Janissary Music* by Charles Wuorinen (1966)
- *Ground* by Norio Fukushi (1973)
- *Toucher* by Vinko Globokar (1973)
- *Psappha* by Iannis Xenakis (1975)
- *Rebonds* By Iannis Xenakis (1987)
- *I Ching* by Per Nørgård (1982)
- *Thirteen Drums* by Ishii Maki (1985)
- *To the Earth* by Frederic Rzewski (1985)
- *Bone Alphabet* by Brian Ferneyhough (1991)
- *XY* by Michael Gordan (1999)

The method for choosing works to explore in this thesis has many positives regarding refining the scope of the thesis. However, there are some negatives which need to be highlighted regarding the accidental omission of some significant figures throughout the twentieth century. These include important female composers such as Lucia Dlugoszewski, who has been identified by Lloyd-Jones<sup>7</sup>, and percussionists such as Micheal Askill<sup>8</sup> and Jean-Charles François.<sup>9</sup> The people mentioned here are only a few of the names that have

---

<sup>7</sup> Rebecca Lloyd-Jones, "A Space for Women as Women Exploring a Gendered Feminine Percussion Practice through the work of Lucia Dlugoszewski" (paper presented at Transplanted Roots Research Symposium 2019, Universidad de Guanajuato, 12-14 September 2019), <https://rebeccalloydjones.files.wordpress.com/2020/03/a-space-for-women-as-women-exploring-a-gendered-feminine-percussion-practice-through-the-work-of-lucia-dlugoszewski.pdf>.

<sup>8</sup> Devenish, *Global Percussion Innovations: The Australian Perspective*, 52.

<sup>9</sup> "Jean-Charles François" Dare Conferences, accessed September 20, 2020. [https://dareconferences.org/dare\\_author/jean-charles-francois/](https://dareconferences.org/dare_author/jean-charles-francois/).

been omitted due to them being outside the scope of this thesis. However, there should be more research done, similarly to the work done by Lloyd-Jones, to explore how each person has specifically influence the areas that will be highlighted in this thesis.

Part of this research was to perform a recital of works that showcases how multi-percussion as a style of writing has developed. A recital was chosen to be performed as part of this research as information regarding the works and their place in the repertoire were discussed during the performance. The research also informed specific performance practise in the preparation for the recital. Five works were chosen to represent the different trends in multi-percussion writing during the twentieth century.

- *Cha-Cha-Cha* by Poul Ruders
  - A one-person Latin band and was chosen to represent percussion ensemble works.
- *I Ching*, "III. The Gentle, the Penetrating (hexagram no. 57)" by Per Nørgård
  - Represents the later generations of works, highlighting the significance of it being the first work to have multiple movements.
  - As there was not enough time to perform the entire work in this recital the third movement was chosen as it is the smallest setup out of the four movements.
- *Cadenza for 6 Pauken* by Peter Sadlo
  - Represents jazz's influence on the field of multi-percussion, as this work predominantly features boogie woogie jazz, as well as the *Saints Come Marching in*.
- *To the Earth* by Fredric Rzewski
  - Represents the limited instrumentation works (explored in 7.2) part of the second generation of multi-percussion works involving smaller setups.
  - Is representative of the first work in the generation (*Toucher*) as it has commonalities in its use of limited instrumentation and speech.
- *Psappha* by Iannis Xenakis
  - Considered to be one of the masterworks of multi-percussion by many major writers and percussionists, including Steven Schick.

Although the choice of a timpani work is unusual in a multi-percussion recital the choice was made as it was the most effective way of expressing the influence jazz had on the field of multi-percussion.

It is clear through the research on the field that there is substantial information on the works, composers, and percussionists that will be discussed. However, it has become evident that there is little research done on the impetus that led to the creation of the different setting of multi-percussion throughout the twentieth century. This dissertation aims to fill this gap of knowledge and will focus purely on the impetus that led to creation of an incredibly varied catalogue of works for multi-percussion that have emerged over the course of the twentieth century.

## 3. Early use of percussion

This chapter explores the development and varied uses of percussion in the orchestra and marching bands in the early twentieth century. The focus will be on the changing roles of percussion in the orchestra as well as the rise of the drum kit in American marching bands. It is proposed that these new roles were substantially influential on the development of multi-percussion as they allowed composers to see the expressive and soloistic potential of these instruments.

Throughout this chapter there will be a distinction between timpani and percussion in the orchestra. These instruments developed at different times as timpani has been a part of the orchestra for much longer than percussion, this suggests that the development of timpani does not correlate with the rise of multi-percussion works. Therefore, the development of timpani is beyond the scope of this research. This excludes discussing the use of timpani by Berlioz, Beethoven, and Wagner despite their importance to the development of timpani in the orchestra. When discussing percussion in the orchestra it will be specifically referring to the percussion section, which differs from the timpanist and the timpani section.

### 3.1 The use of percussion in the orchestra before the start of the twentieth century

The most common orchestral percussion instruments came from the Turkish military bands (Janissary music) where the army would march with bass drums, cymbals, triangles, and the Turkish crescent (an instrument that didn't transition well into orchestral percussion). Mozart uses these instruments in *The Abduction from the Seraglio* (1782) to evoke the exotic atmosphere of the Turkish Seraglio.<sup>10</sup> Beethoven also makes a reference to Janissary bands in the fourth movement of his *9th Symphony*, where he uses bass drum, cymbals, and triangle, to represent a Turkish march.<sup>11</sup> The expectation for a percussionist in these works was for them to play one instrument each; three players would be required for Beethoven's *9th Symphony* (bass drum, cymbals, and triangle).<sup>12</sup>

---

<sup>10</sup> John Beck, *Encyclopedia of Percussion* (New York: Garland Publishing, Inc, 1995), 257.

<sup>11</sup> D. Doran Bugg, "The role of Turkish percussion in the history and development of the orchestral percussion section" (DMA Major Paper, Louisiana State University, 2003), 31, [https://digitalcommons.lsu.edu/gradschool\\_majorpapers/27](https://digitalcommons.lsu.edu/gradschool_majorpapers/27).

<sup>12</sup> James Blades, *Percussion Instruments and their History* (Wesport: The Bold Strummer, Ltd., 2005), 266-267.



These works highlight the the role of the percussionist and percussion instruments before the twentieth century which was to accentuate and emphasise the “structural harmonic movements”,this was achieved by using rhythmic and colouristic effects.<sup>13</sup> Percussion was used this way for a significant portion of orchestral music leading up to the end of the nineteenth century where things would begin to change. Percussion began to receive more significant roles in the music which in turn led to an increase in the number of percussionists and instruments that were being used.<sup>14</sup>

### 3.1.1 New uses of percussion in orchestral works

Significant changes in the number of percussionists needed, the types of instruments, and their uses were central to the new roles for percussion in the orchestra. This can be found in such works as Rimsky-Korsakov’s *Capriccio Espagnol* (1887) and Debussy’s *La Mer* (1903-5).<sup>15</sup> Opposed to many of the works written in the eighteenth and nineteenth century, these works required a greater number of percussionists, in addition to using new, exotic, and strange instruments that were yet to be used in a purely orchestral setting. These changes were stepping beyond the uses of the instruments from the Turkish military bands as new cultures and sound worlds began to emerge.

*Capriccio Espagnol*<sup>16</sup> uses percussion to create new and exotic sounds worlds, as Nikolai Rimsky-Korsakov uses percussion in new and interesting ways. The first example is his use of castanets, to evoke an exotic Spanish sound. He uses these instruments throughout his work to accentuate changes and colour the sound created with his use of melody and harmony, which makes the work overflow with the Spanish culture. Another significant way that he wrote for percussion was by increasing and changing its role in the orchestra by writing for timpani, triangle, and snare drum rolls to underpin various solos in other instruments throughout the fourth movement of this work.<sup>17</sup>

There were many composers who also experimented with new and non-traditional uses for percussion instruments including Strauss in *Eine Alpensinfonie* (1911-1915) and Mahler in his 4<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> *Symphonies* written in 1900, 1904, and 1905 respectively. In *Eine Alpensinfonie* Strauss uses multiple cowbells to musically illustrate cows grazing on the

---

<sup>13</sup> Beck, Encyclopedia of Percussion, 257.

<sup>14</sup> Blades, Percussion Instruments and their History, 418.

<sup>15</sup> Blades, Percussion Instruments and their History, 336.

<sup>16</sup> Nikolai Rimsky-Korsakov, *Capriccio espagnol* (Leipzig: M.P. Belaieff, 1888).

<sup>17</sup> Nikolai Rimsky-Korsakov, Mvt. IV, “Scena e canto gitano,” *Capriccio espagnol* (Leipzig: M.P. Belaieff, 1888).

mountain plateau. In addition to this he wrote for two thunder sheets and wind machines to represent the “storm”, which is believed to be the first example of these instruments being used in a concert hall outside of an operatic setting.<sup>18</sup>

Mahler also employs unusual instruments in his symphonies such as sleighbells opening his 4<sup>th</sup> *Symphony* to conjure horses pulling a cart in the minds of the audience, the hammer sound in his 6<sup>th</sup> *Symphony* to illustrate the three blows of Fate on his life,<sup>19</sup> and multiple cowbells in his 7<sup>th</sup> *Symphony*<sup>20</sup> to represent cows in a meadow, similar to Strauss’ *Eine Alpensinfonie*. These two composers show that the role of percussion instruments was beginning to change as they were starting to be acknowledged for their sonic potential instead of just their rhythmical qualities.

There were countless composers at this time who were writing percussion in new and interesting ways such as Debussy’s use of antique cymbals in *Afternoon of the Faun* (1894) and Igor Stravinsky use of snare drum and timpani interludes in *Petrushka*. Works like these allowed many composers to begin experimenting with the role of percussion and subsequently the technical challenges for percussionists were expanding. One example of a work that shows the new choices a percussionist was expected to make is *La Mer*, by Debussy as it features a cymbal part which focuses on the orchestral colours and timbres that are possible out of cymbals, parts like this adds to the potential musical decisions that the percussionist can and were being expected to make.<sup>21</sup>

As these parts were being written percussionists were expected to make more musical choices in the parts they were playing. The cymbal parts being written are a clear representation of this as there are countless sounds that one person can make with a single pair of cymbals. This can be seen in Frank Epstein’s book *Cymbalisms*,<sup>22</sup> which discusses twenty-two different strokes, each being used for a different purpose.<sup>23</sup> The twenty-two strokes combined with countless choices in sizes, makes, and weights of cymbals creates almost infinite choices one player can make with a single crash cymbal note at mezzo-forte.

---

<sup>18</sup> Jonathan Minnick, “Richard Strauss’s *Eine Alpensinfonie*: An Analysis of Origins, Topics, and Symphonic Characteristics” (Honour’s Thesis, University of North Carolina, 2016), 20, [https://cdr.lib.unc.edu/concern/honors\\_theses/8623j276t](https://cdr.lib.unc.edu/concern/honors_theses/8623j276t).

<sup>19</sup> Naill O’Loughlin, “Interconnection Musicologies Decoding Mahler sixth Symphony,” *Musicological Annual* 39, no. 1 (January 2003): 38, <https://doi.org/10.4312/mz.39.1.31-49>.

<sup>20</sup> Blades, *Percussion Instruments and their History*, 392.

<sup>21</sup> Frank Epstein, *Cymbalism* (Milwaukee: Hal Leonard, 2007), 58

<sup>22</sup> Epstein, *Cymbalism*, iii.

<sup>23</sup> Epstein, *Cymbalism*, v.

John Beck states percussion instruments have a great “timbre efficiency” as they are instruments that can produce an enormous variety of sounds in the hands of only a few players. This became a major focus of composers in the twentieth century as composers started making music that was focusing on timbre change instead of just focusing on melody and harmony.<sup>24</sup> Since percussion instruments were so efficient and effective at changing timbre they were an obvious choice for these composers to experiment with.<sup>25</sup>

In addition to the works discussed in this chapter there are many notable works that also show the extended use of percussion in the twentieth century, (see Appendix 1).

### 3.1.2 Percussion as a feature in orchestral works

As the roles of percussion instruments began developing more composers started experimenting with new and radical using these instruments. Alexander Tcherpnin was one of these composers who made a radical change regarding the use of percussion in the orchestra.<sup>26</sup> In 1927 he began to write his *Symphony No.1* and would expand upon the role of percussion in a more radical and soloistic way. This radical use of percussion appears in his symphony’s second movement which he wrote “to be treated like a concerto for percussion instruments”<sup>27</sup> the first time in the history of the orchestral music where percussion was used in this way.<sup>28</sup>

Using percussion in this way was Tcherpnin’s attempt to separate the orchestra and himself from the conventions that had been set in the history of Western Art Music. This work did not receive critical acclaim for its use of percussion, it was instead shunned and dismissed by audience members, who at the premier of this work called him a “barbarian”.<sup>29</sup> After its premier this work only received a few subsequent performances, and it was not until 1999 that the work was recorded in its entirety by the Singapore Symphony Orchestra.

---

<sup>24</sup> Beck, Encyclopedia of Percussion, 257.

<sup>25</sup> Schick, The Percussionist’s Art, 2.

<sup>26</sup> Benjamin Andrew Charles, “Multi-Percussion in Undergraduate Percussion Curriculum” (Doctoral Essay, University of Miami, 2014), 1, [https://scholarlyrepository.miami.edu/cgi/viewcontent.cgi?article=2342&context=oa\\_dissertations](https://scholarlyrepository.miami.edu/cgi/viewcontent.cgi?article=2342&context=oa_dissertations).

<sup>27</sup> Ludmila Korabelnikova, Alexander Tcherpnin: The Saga of a Russian Emigré Composer, trans. Anna Winestein, ed. Sue Ellen Hershman-Tcherpnin (Bloomington and Indianapolis: Indiana University Press, 2008), 93

<sup>28</sup> Korabelnikova, Alexander Tcherpnin, 84.

<sup>29</sup> Willi Reich, Alexander Tcherpnin (Bonn: M.P. Belaieff, 1970), 33.

This work may have fallen out of the musical canon<sup>30</sup> however it is important to mention as it shows how a multitude of composers at this time were attempting to write for percussion. Another composer who was experimenting with more radical uses of percussion was Shostakovich in his ballet *The Nose* (1928).<sup>31</sup> He features percussion in a musical interlude where they are the only family of instruments playing.<sup>32</sup>

There is little to no evidence suggesting that these works were influential on each other or any works that followed in the development of multi-percussion, therefore a deeper analysis of these works is beyond the scope of the research. However, a brief discussion of these works is important as they show how writing for percussion was reaching the forefront of composers creative thought, which hints at a new setting for percussion, which will be explored in 4.2 (the percussion ensemble).

---

<sup>30</sup> Joshua Lee Bedford, "Alexander Tcherepnin's Symphony No.1: Validating the Work Within the Canon of Symphonic Composition" (Master's Thesis, Indiana State University, 2011), 1, <https://pdfs.semanticscholar.org/d5f8/c419420e7c53cb5a8826c3315efc7b26bc27.pdf>.

<sup>31</sup> Dimitri Shostakovich, "Interlude No. 4," *Die Nase* (Austria: Universal Edition, 1930), 46-60.

<sup>32</sup> "Dmitri Shostakovich The Nose," Boosey & Hawkes, accessed December 14, 2019, <https://www.boosey.com/cr/music/Dmitri-Shostakovich-The-Nose/15661>.

## 3.2 Early drum kit and its influence

The growth of the percussion section into an early drum kit in the New Orleans brass bands during the late nineteenth century also had a significant effect on the development of multi-percussion.

### 3.2.1 New Orleans brass bands

Major brass bands were scattered throughout most cities in America in the late nineteenth century, and each of these major bands had different ways of playing due to the variety of influences they received from the different migration cultures that were present in various states. The European military bands were a major influence in the development of percussion in the American brass bands leading to innovative approaches to writing and performing percussion. Throughout America these European military bands featured brass and percussion instruments performing in a marching style.<sup>33</sup>

Each of these bands had their own distinct voice reflecting the cultural characteristic of the region. Some of the most prominent and influential bands upon the development of percussion were the New Orleans brass bands, as there was a strong tradition of African music and dance in the city.<sup>34</sup> This blend of military bands and the traditional African music created a unique style that became incredibly popular. This music was a combination of ragtime, blues, spirituals, marches, European dances, Latin American rhythms, and American popular song.<sup>35</sup> When these styles combined, they became linked with everyday life playing at public events, such as funerals, baseball games, and business gatherings.<sup>36</sup>

The early and most enduring groups in the New Orleans brass bands scene were Excelsior (1880-1930), Onward (1885-1930), Reliance (1892-1918), Tuxedo (1917-25), and Eureka (1920-75).<sup>37</sup> Reimer states that these bands were made up of eight to fifteen players, the standard instruments included, but were not limited to, cornets, trombones, alto, baritone horn, sousaphone, snare drums, and bass drums (with attached cymbal). He also mentions

---

<sup>33</sup> Benjamin N. Reimer, "Defining the Role of Drumset Performance in Contemporary Music" (PhD diss., McGill University, 2013), 10, [https://www.pas.org/docs/default-source/thesisdissertations/Reimer\\_-\\_Defining\\_the\\_Role\\_of\\_Drumset\\_Performance\\_in\\_Contemporary\\_Music.pdf](https://www.pas.org/docs/default-source/thesisdissertations/Reimer_-_Defining_the_Role_of_Drumset_Performance_in_Contemporary_Music.pdf).

<sup>34</sup> Reimer, "Defining the Role of Drumset," 11.

<sup>35</sup> Driscoll, "New Orleans Brass Band," 31.

<sup>36</sup> Matthew Thomas Driscoll, "New Orleans brass band traditions and popular music: elements of style in the music of mama digdown 's brass band and youngblood brass band" (Doctor of Musical Arts, University of Iowa, 2012), 31, <https://ir.uiowa.edu/cgi/viewcontent.cgi?article=3288&context=etd>.

<sup>37</sup> Driscoll, "New Orleans Brass Band," 24.

that the early history of these bands would typically have two or more percussionists playing either a snare drum or a bass drum with cymbal attachment, there are some occasions where there would be a specific cymbal player however that was not common.<sup>38</sup> The development and rise of these New Orleans brass bands are directly linked to the emergence of jazz.

### 3.2.2 First semblance of a drum kit

As the popularity of these bands increased so did the performance opportunities. Many of these opportunities were no longer outdoors in a marching setting, they were in theatre pits. The transition from a marching band to indoor performances created major issues for the number of performers that could fit in the limited space in these venues.<sup>39</sup> The solution was to cut the number of performers and since percussion instruments took up the most space it was a logical choice to reduce the size of the percussion section in the band.<sup>40</sup> As this section was still necessary to recreate the now popular sound of the brass bands, a tradition of double drumming developed, where a single player would play bass drum on the floor to the right and snare drum resting on a chair to the left.<sup>41</sup> Due to this setup the percussionists rhythms were unable to be overly complicated.

Double drumming became commonplace in these bands; however, both the music and percussionists began to require more complicated rhythms and freedom to play these instruments. After much experimentation to achieve more control, in 1909 the bass drum pedal was invented by the Ludwig Drum Company. This development allowed the drummers to play the bass drum with their feet while keeping their hands free to play these complicated passages on the snare or other instruments.<sup>42</sup> The combination of snare drum, bass drum, and cymbals would become the basis of what would become the drum kit.

The drum kit started to expand beyond the snare drum, bass drum, and cymbals setup, to add other instruments including; woodblocks, cow bells, tam-tam, toms/Chinese toms, high-hats, low-hats. The drum kit is a prime example of early multi-percussion, however it is not often referred to as multi-percussion as this setup has become standardised.<sup>43</sup> This setup

---

<sup>38</sup> Reimer, "Defining the Role of Drumset," 11.

<sup>39</sup> Georges Paczynski, *Une Histoire de la Batterie de Jazz*, 3 vols., vol. 1 (Paris: Outre Mesure, 1999), 44.

<sup>40</sup> Paczynski, *Une Histoire de la Batterie de Jazz*, 44.

<sup>41</sup> Geoff Nicholls, *The Drum Book: A History of the Rock Drum Kit*, 2nd ed. (New York: Backbeat Book, 2008), 12.

<sup>42</sup> Reimer, "Defining the Role of Drumset," 13.

<sup>43</sup> Reimer, "Defining the Role of Drumset," 5.

would remain consistent throughout the century with each drummer adding their own personal flavour to their version of it.

### **3.3 Influence on the writing of multi-percussion**

The development of percussion in orchestral and brass band music has made a significant impact on the writing of percussion throughout the twentieth century. Composers began to absorb the new sounds that were developing in percussion and turned their attention to engaging some of the new instrumental options available to them. The drum kit had more of a direct impact on the world of multi-percussion, which will be explored in 4.1, as it acts like a catalyst triggering a reaction from composers such as Stravinsky and Milhaud. In addition to these influences, another key influence that will be explored in 4.2 is the new experimental compositional ideas present in the works by Varese and Cage.

## 4. Multi-percussion in chamber music works

The new and expanded uses of percussion in orchestral music and creation of the drum kit, allowed composers to see the potential of these instruments and led to the emergence of percussion being used in the setting of chamber works. Igor Stravinsky, Darius Milhaud, Amadeo Roldan, Edgard Varese, Béla Bartók, and John Cage were some of the composers who experimented with writing for multi-percussion, as the interest in percussion was gaining significant traction.

### 4.1 Multi-percussion as a part of a chamber work

There were two ways that percussion was being written in chamber works; firstly as a multi-percussion setup featuring percussionists playing multiple instruments concurrently, the other is a percussionist moving between instruments in the work. The first style is of more interest to this topic however there will be a brief discussion into the second style of writing. Both styles were heavily influenced by jazz and the drum kit, highlighting its importance in this early phase of multi-percussion.<sup>44</sup> The following section is devoted to the early works that feature multi-percussion parts in various settings.

#### 4.1.1 The first multi-percussion setups

##### 4.1.1.1 *L'histoire du soldat* (1918)

1918 was a ground-breaking moment in the composition of percussion when Stravinsky wrote *L'histoire*, a chamber work for seven instrumentalists and a narrator.<sup>45</sup> One of the instrumental parts is for multi-percussion setup, the very first of its kind. Stravinsky's choice to write for multi-percussion is heavily influenced by jazz and the drum kit.

---

<sup>44</sup> Benjamin Andrew Charles, "Multi-Percussion in Undergraduate Percussion Curriculum" (Doctoral Essay, University of Miami, 2014), 2, [https://scholarlyrepository.miami.edu/cgi/viewcontent.cgi?article=2342&context=oa\\_dissertations](https://scholarlyrepository.miami.edu/cgi/viewcontent.cgi?article=2342&context=oa_dissertations).

<sup>45</sup> Eric Walter White, *Stravinsky: The Composer and his Works* (Berkeley, Los Angeles: University of California Press, 1966), 225.



Ernest Ansermet, a close friend who conducted many of Stravinsky's works,<sup>46</sup> brought ragtime scores to Stravinsky after the Russian Ballet's second American tour in 1917.<sup>47</sup> Ansermet acquired these scores in New Orleans where he experienced the New Orleans brass bands and the drum kit in action. This sparked his interest in this style of writing which he wanted to share with Stravinsky.<sup>48</sup>

Stravinsky upon seeing these parts became so engrossed in jazz that he instantly started composing "the ragtime part in *L'histoire*".<sup>49</sup> His obsession continued after completing *L'histoire* as he instantly started another work in a similar style, *Ragtime with 11 Instruments*, which also includes a multi-percussion setup.<sup>50</sup> Even though he wrote these two works in a ragtime style, he was yet to hear jazz played live, and his entire knowledge on the field was based on the sheet music he had received.<sup>51</sup>

Other than the drum kit and jazz heavily influencing the creation of the multi-percussion part there are two other factors that could have influenced Stravinsky's writing. Firstly, it was written during Stravinsky's exile to Switzerland creating an issue of available players.<sup>52</sup> Secondly, this was composed in the years of following the First World War, when Stravinsky and much of the world was in poverty.<sup>53</sup> To survive through this time financially Charles-Ferdinand Ramuz (author of the text in *L'histoire*) and Stravinsky decided to create *L'histoire* as a show that would tour around Europe.<sup>54</sup>

In creating such a revolutionary multi-percussion part there were countless issues that Stravinsky had to overcome. The two main issues were the notation and the setup.<sup>55</sup> Stravinsky was required to create his own notational system as there were no conventions set

---

<sup>46</sup> Benjamin Andrew Charles, "Multi-Percussion in Undergraduate Percussion Curriculum" (Doctoral Essay, University of Miami, 2014), 2,

[https://scholarlyrepository.miami.edu/cgi/viewcontent.cgi?article=2342&context=oa\\_dissertations](https://scholarlyrepository.miami.edu/cgi/viewcontent.cgi?article=2342&context=oa_dissertations).

<sup>47</sup> "Timeline of Ballet Russes," Library of Congress, accessed December 18, 2019,

<https://www.loc.gov/collections/ballets-russes-de-serge-diaghilev/articles-and-essays/timeline-of-ballets-russes/>.

<sup>48</sup> Igor Stravinsky & Robert Craft, *Dialogues and a Diary* (United Kingdom: Faber & Faber, 1963), 87.

<sup>49</sup> Igor Stravinsky & Robert Craft, *Dialogues and a Diary* (United Kingdom: Faber & Faber, 1963), 87.

<sup>50</sup> Barbara B. Heyman, "Stravinsky and Ragtime," *The Musical Quarterly* 68, no. 4 (October 1982): 547, [www.jstor.org/stable/742157](http://www.jstor.org/stable/742157).

<sup>51</sup> White, *Stravinsky: The Composer and his Works*, 232.

<sup>52</sup> White, *Stravinsky: The Composer and his Works*, 226-227.

<sup>53</sup> Heyman, "Stravinsky and Ragtime," 544.

<sup>54</sup> Al Payson, "Multiple Percussion at the School Level By Al Payson," *Percussive Notes* 11, no. 3 (1973): 16-17, accessed April 24, 2017, <http://publications.pas.org/Archive/pnv11n3/articles/pnv11n3.16-17.pdf>.

<sup>55</sup> Stravinsky, *Histoire du Soldat*

in place for him to follow.<sup>56</sup> This led him to create a part that is in many ways almost impossible to read at first.<sup>57</sup>

The setup was also of great concern as he was required to discover the best way of arranging the instruments and an effective way of notating it for future performers. The desire to write the part led him to begin experimenting with playing these instruments in different combinations and setups. These experiments were done in his kitchen using drums that he had bought from a local store in Lausanne.<sup>58</sup>

The style of playing in this work is similar to double drumming (3.2.2) the style of drumming that was done before the invention of the bass drum pedal. One possible reason for this is that he potentially would not have had access to a pedal although he would have heard of it.

These experiments in setup and playing approach caused Stravinsky to write many unusual and counter intuitive performance notes for the percussionist.<sup>59</sup> One such instruction is for the percussionist to position the field drum and snare drum very close together and play semi-quavers by moving one hand between them (horizontally). A modern percussionist would just simply use two hands to play the two separate drums, potentially the setup that Stravinsky used had made that option impossible.<sup>60</sup> The modern way that this work is played generally avoids using Stravinsky's original music or setup design as technological and notational improvements have made them obsolete outside of historical interest.<sup>61</sup>

Although Ramuz and Stravinsky had planned for this work to tour around Europe it was not to be, as its tour was stopped short after its first performance. The Spanish influenza had struck Stravinsky and members of the cast and the musicians which stopped any chance of continuing the tour at this time. It was not performed again for another five years, after the next few works featuring multi-percussion setups began to emerge. As this tour was cut short, it changes this work from being the watershed moment it should have been. *L'histoire* is still important due to it being the first work written, however there is little to no evidence suggesting it would go on to influence the later works in this field.

---

<sup>56</sup> David Early, "Percussion Performance Issues in Stravinsky's *Histoire du Soldat*," *Percussive Notes* 31, No. 5 (June 1993): 69, <http://publications.pas.org/archive/pnv31n5/articles/pnv31n5.69-75.pdf#search=%22histor%20du%20soldat%22>.

<sup>57</sup> Early, "Percussion Performance Issues" 71.

<sup>58</sup> Heyman, "Stravinsky and Ragtime," 552.

<sup>59</sup> Early, "Percussion Performance Issues"

<sup>60</sup> Early, "Percussion Performance Issues" 71.

<sup>61</sup> Early, "Percussion Performance Issues," 69

#### 4.1.1.2 *La création du monde* (1922)

Darius Milhaud is similarly influenced by jazz music and the drum kit as *La création du monde* is overflowing with musical ideas that are direct references to this style.<sup>62</sup> References range from Milhaud's choice of chords, musical ideas, as well as the multi-percussion part, which resembles a drum kit, with the addition of a tambourine.<sup>63</sup>

Milhaud had direct contact with jazz as he travelled to America in 1922, part of his trip was to find the "Authentic" sounds of jazz.<sup>64</sup> One of the places he travelled to was Harlem and it was here that he saw the brass bands and more importantly the drum kit in action.<sup>65</sup> Milhaud was always interested in the "problems of percussion"; this combined with experiencing the drum kit inspired Milhaud to start writing *La création du monde* as soon as he had arrived back in France.<sup>66</sup>

*La création du monde* and *L'histoire*'s percussion parts have many commonalities however there are some key differences in the instrumentation and setups. One of these major differences is the inclusion of the bass drum pedal in *La création du monde*, which could also simultaneously strike a cymbal attached to the bass drum.<sup>67</sup> This difference could have occurred as Milhaud would have had access to a pedal and Stravinsky either didn't or chose not to write for it.

### 4.1.2 Alternative ways of writing for multi-percussion

Both Stravinsky and Milhaud were writing works that involve percussionists playing an array of instruments concurrently. At the same time there were also composers such as William Walton and Aaron Copland, in *Façade* (1922) and *Music for the Theatre* (1925),<sup>68</sup> who were writing multi-percussion parts that require players to move between different instruments, and only rarely play multiple instruments at the same time. Although there is a major

---

<sup>62</sup> Reimer, "Defining the Role of Drumset," 39-48.

<sup>63</sup> Reimer, "Defining the Role of Drumset," 40-41.

<sup>64</sup> Darius Milhaud, *Notes Without Music*, trans. Donald Evans, ed. Rollo H. Myers (London: Dennis Dobson Ltd., 1952), 118.

<sup>65</sup> Darius Milhaud, *My Happy Life*, Trans. Donald Evans, George Hall, and Christopher Palmer (London, New York: Marion Boyars, 1987, 1995), 109.

<sup>66</sup> Warren Howe, "The Percussionist's Guide to Darius Milhaud's *La Création du Monde*," *Percussionist* 17, no. 1 (Fall 1979): 38, <http://publications.pas.org/archive/resfal79/articles/resfal79.37-48.pdf#search=%22creation%20du%20monde%22>.

<sup>67</sup> Russ Girsberger, "Darius Milhaud's 'La Création du Monde': The Problems with the Parts," *Percussive Notes* 38, no. 3 (June 2000): 55, <http://publications.pas.org/archive/Jun00/articles/00.06.55-59.pdf#search=%22creation%20du%20monde%22>.

<sup>68</sup> "Aaron Copland *Music for the Theatre*," Boosey & Hawkes, access December 1, 2019, <https://www.boosey.com/cr/music/Aaron-Copland-Music-for-the-Theatre/6728>.

difference in the way the percussion parts have been written<sup>69</sup> a commonality that they share with *L'histoire* and *La création du monde* is the influence of jazz.<sup>70</sup> An in-depth discussion of these works is out of the range of this dissertation as the focus is on multi-percussion where multiple instruments are played concurrently.

## 4.2 Percussion ensemble music

The percussion ensemble was the next major setting in the writing of multi-percussion. The writing in this setting is a continuation of the works by Tcherepnin and Shostakovich who were discussed in 3.1.2, as it is the first evidence of percussion instruments existing in Western Art Music without any support of harmony or melody. The major composers who began to write in this setting were Roldan, Varese, and Cage.

### 4.2.1 *Ritmica No.5 and No.6 (1930)*

Amadeo Roldan's works *Ritmica No.5* and *No.6* are the first known works for percussion ensemble to be fully notated in Western Art Music.<sup>71</sup> Roldan is one of Cuba's most celebrated composers with many of his major orchestral works featuring a large number of percussion parts, in particular traditional Cuban instruments.<sup>72</sup> This is due to him finding the voice of his compositional style to be inspired by Cuban nationalism.<sup>73</sup> A large part of Cuban music was focused on the many percussion instruments that are native to that area. Examples of these instruments are claves, cenerros (cowbells), maracas, quijada (jawbone), guiro, bongo, timbales, and marimbula all of which appear in both *Ritmica No.5*<sup>74</sup> and *No.6*.<sup>75</sup> The only instruments in these works that are not directly from a Cuban background are the

---

<sup>69</sup> Howard Pollack, *Aaron Copland: The Life and Work of An Uncommon Man* (Urbana: University of Illinois Press, 1999), 113.

<sup>70</sup> Brett Andrew Richardson, "Aaron Copland's Music for the Theatre: A Transcription for Wind Band" (PhD Diss., Indiana University, 2014), 14, <https://scholarworks.iu.edu/dspace/bitstream/handle/2022/18474/Richardson%2C%20Brett%20%28DM%20Wind%20Cond%29.pdf?sequence=1&isAllowed=y>.

<sup>71</sup> John Richard Hall, "Development of the Percussion Ensemble Through the Contributions of the Latin American Composers Amadeo Roldan, Jose Ardevol, Carlos Chavez and Alberto Ginastera" (DMA Document, Ohio State University, 2008), ii, [https://etd.ohiolink.edu/!etd.send\\_file?accession=osu1211553990&disposition=inline](https://etd.ohiolink.edu/!etd.send_file?accession=osu1211553990&disposition=inline).

<sup>72</sup> Hall, "Development of the Percussion Ensemble," 23, 27.

<sup>73</sup> Hall, "Development of the Percussion Ensemble," 8.

<sup>74</sup> Amadeo Roldan, *Ritmica No.5* (New York & Hamburg: Peer Music, 1967)

<sup>75</sup> Amadeo Roldan, *Ritmica No.6* (New York & Hamburg: Peer Music, 1967).

timpani and bass drum, although the bass drum could be representing a low drum from Cuban traditional music.<sup>76</sup>

This work does not feature any multi-percussion parts however it is of great interest to this topic as it signifies the first time in which western audiences could have experienced a chamber ensemble music made entirely of percussionists. This work is often overlooked and is generally not considered to be the first work for percussion ensemble even though it was written one year before Varese's *Ionisation* (1931).<sup>77</sup> There are some scholars who suggest that Roldan's friendship with Varese influenced some of the instrumentation in *Ionisation* as Varese received a package from Roldan while he was writing *Ionisation* which contained "a guiro, a pair of maracas, two claves, and a cowbell"<sup>78</sup> all which appear in the score of *Ionisation*.<sup>79</sup>

#### 4.2.2 *Ionisation* (1931)

*Ionisation*, written in 1931 by Varese is another work for percussion ensemble and is generally credited with being the first work of this genre for two reasons. Firstly, he started writing it in 1929 only to finish it in 1931,<sup>80</sup> which leads to the speculation that the ideas of a percussion ensemble were circulating with Varese before Roldan's work was created.<sup>81</sup> The other reason is that Varese was a very well-known composer, due to him being the head and one of the founding members of the International Composers' Guild, suggesting more people would have heard of *Ionisation* and not of *Ritmica No.5* or *No.6*.<sup>82</sup>

Whether it is the first work for percussion ensemble or not is unimportant in this discussion as the focus on these works is the influence that they had on the many composers and music critics that experienced them. Nicholas Martnez suggested that the Western Art Music was not sufficiently prepared for a work that was written for unpitched percussion instruments.<sup>83</sup> The premier of *Ionisation* led to discussions on whether music without any pitch should be considered to be music at all, with the New York Times stating that it "could

---

<sup>76</sup> Larry Dean Vanlandingham, "The Percussion Ensemble: 1930-1945." (PhD diss., Florida State University, 1971), 7-9.

<sup>77</sup> Hall, "Development of the Percussion Ensemble," 4.

<sup>78</sup> Hall, "Development of the Percussion Ensemble," 32-33.

<sup>79</sup> Hall, "Development of the Percussion Ensemble," 32.

<sup>80</sup> Hall, "Development of the Percussion Ensemble," 16-17.

<sup>81</sup> Odile Vivier, *Varèse* (Paris: Éditions du Seuil, 1973), 93.

<sup>82</sup> Hall, "Development of the Percussion Ensemble," 49-50.

<sup>83</sup> Fernand Ouellette, *Edgard Varese*, trans. Derek Coltman (New York: Da Capo Press, 1981), 124.

hardly be called music”.<sup>84</sup> Although Varese received considerable disapproval and disgust from conservative audience members he was praised by many of the “musical elite”.<sup>85</sup>

*Ionisation* is written for thirteen percussionists who together play forty different instruments including; bass drums, tenor drums, snare drums, tarole (piccolo snare drum), bongos, tambourine, field drum, crash cymbal, suspended cymbals, tam-tams, gongs, anvils, triangles, sleigh bells, cowbell, chimes, glockenspiel, pinnao, temple blocks, claves, maracas, castanets, whip, guiro, high and low sirens, and a lion's roar.<sup>86</sup> There are a few reasons why Varese could have chosen to write a work which only featured percussion instruments, the main one being that it was a continuation ideas that appear in many of his earlier compositions, which were focused on rhythms and percussion. This can be seen most clearly in his orchestral works, *Ameriques* (1921) and *Arcana* (1927), which the New York Times states as being strongly influenced by Debussy, Stravinsky, and the sounds of Varese's “adopted home, New York”.<sup>87</sup> They also state that no composer until Varese had approached writing for percussion with this level of sophistication and subtly.<sup>88</sup>

*Ionisation* was also the first work that Varese had written that was going to be recorded.<sup>89</sup> It was originally planned to be recorded by the percussionists of the New York Philharmonic but, as Nicolas Slonimsky states in his biography *Perfect Pitch*,<sup>90</sup> “it soon became clear that they could never master the rhythms” that Varese had written. This led to the recording being done in 1933 by Carlo Salzedo, Paul Creston, Wallingford Riegger, and William Schuman,<sup>91</sup> which suggests that this work alone increased the skill level that was needed of a percussionist in the twentieth century.<sup>92</sup>

This recording would go on to influence many major composers and performers to follow, some of these are Pierre Boulez, who said “it was like an object coming from Mars”<sup>93</sup> as well as Morton Feldman and John Cage, who point out that “*Ionisation*” startled “even the

---

<sup>84</sup>Howard Thompson, “New Music Given by Pan-Americans,” *The New York Times*, April 16, 1934, <https://www.nytimes.com/1934/04/16/archives/new-music-given-by-panamericans-compositions-by-varese-ives-and.html>.

<sup>85</sup> Fernand Ouellette, *Edgard Varese*, trans. Derek Coltman (New York: Da Capo Press, 1981), 124

<sup>86</sup> Edgard Varese, *Ionisation* (New York: Edgar Varese, 1934).

<sup>87</sup> Steve Smith, “Banging Out a Revolution in 91 Mearsures,” *The New York Times*, July 16, 2010, <https://www.nytimes.com/2010/07/18/arts/music/18varese.html>.

<sup>88</sup> Smith, “Banging Out a Revolution in 91 Mearsures.”

<sup>89</sup> Jed Distler, “The First Recordings of Edgard Varèse and Charles Ives,” *Classical Net*, accessed November 8, 2019, <http://www.classical.net/music/recs/reviews/distler/slonimsky.php>.

<sup>90</sup> Distler, “The First Recordings of Edgard Varèse and Charles Ives.”

<sup>91</sup> “1933 Premiere and First Recording of Varese's *Ionisation*,” *Nexus percussion*, accessed January 26, 2020, <http://www.nexuspercussion.com/2010/02/1933-world-premiere-of-vareses-ionisation/>.

<sup>92</sup> Distler, “The First Recordings of Edgard Varèse and Charles Ives.”

<sup>93</sup> *The One All Alone*, Directed by Frank Scheffer (2009; Netherlands: Kasander Film Company 2009), DVD.

most sophisticated musical thinkers”.<sup>94</sup> The New York Times article states that the world of percussion and “the explosive proliferation of percussion music that came after “*Ionisation*” owes nearly everything to Varèse’s mysterious masterpiece”.<sup>95</sup>

### 4.2.3 John Cage’s percussion ensemble

John Cage is one of the most influential composers in the evolution of multi-percussion and percussion in general<sup>96</sup> and will be discussed in more detail in 5.1. Cage was exceptionally influential in the percussion ensemble, between 1930-1950 as he wrote sixteen percussion ensemble works. The more well-known works from this time are Cage’s *Constructions*, the *First*, *Second* and *Third Constructions in Metal* written in 1939, 1940, and 1941 respectively.<sup>97</sup> The most popular work in this series is his *Third Construction* which is for four players each playing a multi-percussion setup of uncommon instruments, and is filled with complicated rhythmic ideas.<sup>98</sup>

Many of these works would not be performed until the 1950s as they contained extremely difficult rhythms and were a challenge to play for technically untrained percussionists.<sup>99</sup> This changed in 1950s as percussionists began to receive a more official education as a percussion curriculum was created and implemented at the University of Illinois and the Manhattan School of Music.<sup>100</sup> The department at the University of Illinois, under the guidance of Paul Price created the first percussion ensemble that was counted as an accredited unit. Price would then continue this work at Manhattan School of Music where he would lead many of his students, in particular Max Neuhaus (6.1) and Jan Williams (7.2.1.1), down the path to become extremely influential on the world of multi-percussion as will be explored in later chapters. At this time the percussion curriculum did not contain multi-percussion solo works as the first solo work for multi-percussion was yet to be written.<sup>101</sup>

---

<sup>94</sup> Smith, “Banging Out a Revolution in 91 Measures.”

<sup>95</sup> Smith, “Banging Out a Revolution in 91 Measures.”

<sup>96</sup> David Revill, “John Cage Hall of Fame,” Percussive Arts Society, accessed December 13, 2019, <https://www.pas.org/about/hall-of-fame/john-cage>.

<sup>97</sup> Cage, *Third Construction*.

<sup>98</sup> Cage, *Third Construction*.

<sup>99</sup> Hall, “Development of the Percussion Ensemble,” 35.

<sup>100</sup> Frederick D. Fairchild, “Paul Price Hall of Fame,” Percussive Arts Society, accessed November 20, 2019, <https://www.pas.org/about/hall-of-fame/paul-price>.

<sup>101</sup> Charles, “Multi-Percussion in Undergraduate Percussion Curriculum,” 7.

## 4.3 Soloistic multi-percussion works

Multi-percussion writing was on the cusp of exploding into the solo music scene due to the success of multi-percussion in chamber works and percussion ensembles. There are two works that show this transition to solo writing; these works are Milhaud's *Concerto for Percussion and Small Orchestra* (1929) and Béla Bartók's *Sonata for Two Pianos and Percussion* (1937).

### 4.3.1 *Concerto for Percussion and Small Orchestra* (1932)

The success of works such as *La création du monde* led to the first opportunity for this style of writing to be used as a soloist rather than just a part of the ensemble.

Milhaud was asked by Theo Coutelier to write a percussion concerto as a test piece for Coutelier's percussion classes.<sup>102</sup> This composition became known as *Concerto for Percussion and Small Orchestra* (1929) and was the first work that began to use percussion as more of a soloistic feature.<sup>103</sup> This work is the first multi-percussion concerto to be written and was a benchmark of what was to come in the field of multi-percussion writing as it requires the use of over 19 instruments (4 timpani and 15 percussion instruments).

Unlike *La création du monde*, Milhaud made a decision to write this work in a way that it wouldn't be reminiscent of jazz.<sup>104</sup> This is especially interesting as it was written during the peak of early jazz and more importantly all the works featuring multi-percussion parts up until then had a jazz influence.<sup>105</sup> Although this is technically a solo multi-percussion work there are many moments that Milhaud wrote the percussion part to resemble one player playing all the instruments in an orchestral percussion section rather being purely soloistic.<sup>106</sup> This could be the case as the art form was not yet developed to a point where percussion could exist without melody or harmony.

---

<sup>102</sup> "Darius Milhaud: Konzert for percussion and small orchestra," Universal Edition, accessed December 6, 2019, <https://www.universaledition.com/darius-milhaud-480/works/konzert-3188>.

<sup>103</sup> "Concerto for Percussion and Small Orchestra," Perc Tek, accessed December 18, 2019, [http://www.perctek.com/index.php?title=Concerto\\_for\\_Percussion\\_and\\_Small\\_Orchestra](http://www.perctek.com/index.php?title=Concerto_for_Percussion_and_Small_Orchestra).

<sup>104</sup> Micheal Thomas Roeder, *A History of the Concerto* (United Kingdom: Amadeus Press, 1994), 365.

<sup>105</sup> Perc Tek, "Concerto for Percussion and Small Orchestra."

<sup>106</sup> Perc Tek, "Concerto for Percussion and Small Orchestra."



### 4.3.2 *Sonata for Two Pianos and Percussion (1937)*

Another masterwork which shows how percussion was developing into more of a soloistic instrument is Béla Bartók's *Sonata for Two Pianos and Percussion (1937)*.<sup>107</sup> He wrote this work following a highly successful commission from the Basel Chamber Orchestra which led to him writing *Music for Strings, Percussion and Celesta*, the instrumentation of which was given to him by the Orchestra when they commissioned the work.<sup>108</sup> The organisers were so delighted with this composition that they quickly requested another work from him however, this time they left the instrumentation open, which gave him the opportunity to be more creative.<sup>109</sup> He quickly settled on the idea of writing a quartet for two pianos and two percussionists, and began writing for these instruments as if they were equals.<sup>110</sup>

In *Sonata for Two Pianos and Percussion* Bartók only uses seven percussion instruments; timpani, bass drum, cymbals, gong, snare drum, tenor drum, and xylophone.<sup>111</sup> This work was written in such a way that only two people would be needed.<sup>112</sup> Bartók states that this is only possible if one player never plays the xylophone and one player never plays the timpani, which creates two different multi-percussion setups. One of the most groundbreaking parts of this writing is, as Bartók discusses, the percussion instruments have been written to be equal in rank to the piano.<sup>113</sup> The percussion part constantly changes its role within the music accentuating important passages, introducing musical ideas against the piano lines, as well as playing the themes as solos throughout the work.<sup>114</sup>

Haley Simons suggests that Bartók's use of percussion expanded what it was capable of which allows it to equal, if not surpass, the musical capabilities of the piano.<sup>115</sup> This work is emblematic of this moment in the evolution of multi-percussion as it shows these setups taking equal stage presence with the piano, which was and continues to be one of the dominating instruments in solo playing.<sup>116</sup>

The works in this chapter outline how percussion was developing from being a part of chamber works to be a major feature, and eventually soloist. These changes show how

---

<sup>107</sup> Haley A. Simons, "Béla Bartók's Sonata for Two Pianos and Percussion" (Phd diss., University of Alberta), 2, <http://www.collectionscanada.gc.ca/obj/s4/f2/dsk2/ftp02/NQ59918.pdf>.

<sup>108</sup> Simons, "Béla Bartók's Sonata for Two Pianos and Percussion," 18.

<sup>109</sup> Simons, "Béla Bartók's Sonata for Two Pianos and Percussion," 18.

<sup>110</sup> Simons, "Béla Bartók's Sonata for Two Pianos and Percussion," 20.

<sup>111</sup> Béla Bartók, *Sonata for 2 Pianos and Percussion* (London: Hawkes & Son, 1942).

<sup>112</sup> Simons, "Béla Bartók's Sonata for Two Pianos and Percussion," 19.

<sup>113</sup> Béla Bartók, *Béla Bartók Essays*, ed. Benjamin Suchoff (Nebraska: University of Nebraska Press, 1992), 417.

<sup>114</sup> Béla Bartók, *Béla Bartók* 417.

<sup>115</sup> Simons, "Béla Bartók's Sonata for Two Pianos and Percussion," 21.

<sup>116</sup> Charles, "Multi-Percussion in Undergraduate Percussion Curriculum," 2.

percussion was coming into its own as a solo instrument and opened the door for the first generation of solo multi-percussion works.

## 5. First generation of solo multi-percussion works

The writing of percussion was evolving in complexity and scale as more composers were becoming interested in the possibilities of percussion. These composers wrote what is known as the first generation of multi-percussion solos. John Cage, Karlheinz Stockhausen, and Morton Feldman all wrote major percussion solos which changed what was being expected from percussionists.

### 5.1 John Cage

John Cage is one of the most influential composers in the evolution of percussion, as explored in 4.2.3 he wrote many important percussion ensemble works. In addition to this his experiments in percussion made him the first person to write a work for solo multi-percussion.<sup>117</sup>

Before Cage began to write extensively for percussion, he was one of Schoenberg's students and attempting to extend his dodecaphonic serial method. However, this didn't keep his interest for long as he turned away from Schoenberg's school of composition after Schoenberg told his students that his compositional rules were "trying to make it impossible for them (anyone) to write music".<sup>118</sup> Hearing this from Schoenberg caused Cage to leave his studies as he decided to revolt against these ideas and made him more than ever determined to write new music.<sup>119</sup>

While finding his new way of writing music he began to work at the University of California.<sup>120</sup> His work at this university was to accompany dance classes, write music for dance choreographies, and teaching a course on "Musical Accompaniments for Rhythmic Expression" all of which culminated to create a profound interest in rhythm, percussion, and sound.<sup>121</sup>

---

<sup>117</sup> David Revill, "John Cage Hall of Fame," Percussive Arts Society, accessed December 13, 2019, <https://www.pas.org/about/hall-of-fame/john-cage>.

<sup>118</sup> Micheal Broyles, *Mavericks and Other Traditions in American Music* (New Haven & London: Yale University Press, 2004), 177.

<sup>119</sup> Broyles, *Mavericks and Other Traditions in American Music*, 177.

<sup>120</sup> David Revill, *The Roaring Silence: John Cage, a Life* (New York: Arcade Publishing, 1992), 55.

<sup>121</sup> Revill, *The Roaring Silence*, 55.

Cage became attracted to the use of unorthodox instruments such as metal sheets and household items, as he was interested in sound in its most basic state.<sup>122</sup> While experimenting with these unorthodox instruments he was also writing his percussion ensemble music (4.2.3), as can be seen in the instrumentation of *Third Construction* using tin cans.

Revill states that following his newly acquired focus in dance and percussion he moved to San Francisco in 1938 so he could work with fellow composer Lou Harrison, who was also fascinated by the music of percussion and dance. Soon after this Cage moved to the Cornish College of the Arts in Seattle, where he first began performing his percussion ensemble works, with an ensemble he created at his school that toured the West Coast. This ensemble was mainly made up of percussionists who were trained dancers/composers. There were not many orchestral percussionists who were working with Cage as, allegedly, these musicians looked down on Cage and what he was trying to accomplish.<sup>123</sup>

## 5.2 The start of solo multi-percussion

Following these performances by his universities ensemble in the 1950's Cage began to experiment in chance music which led to him to write a series known as the "10 000 things project".<sup>124</sup> This project is made up of six solos for a variety of instruments with the notation and musical ideas being chance based. His fascination with chance and percussion culminated in his final work in the series *27' 10.554" for a Percussionist* (1956).<sup>125</sup> In this work Cage created a new way of writing for percussion, the first piece for an unaccompanied solo for multi-percussion. This innovative work and those that followed will be examined in this next section.

### 5.2.1 Cage's *27' 10.554" for a Percussionist* (1955)

It may be said that the world of solo multi-percussion music started in 1956 with Cage's *27' 10.554" for a Percussionist*. Written as part of the 10,000 things project, other works written in this series were; *Six Short Pieces for a String Player*, *An Unfinished Work for Magnetic Tape*, *45' for a Speaker*, *34' 46.776" for a Pianist*, *31' 57.9864" for a Pianist*,

---

<sup>122</sup> Stuart Saunders, "Having Words with John Cage Interview," *Percussive Notes* 30, no. 3 (1992): Page, <http://publications.pas.org/Archive/pnv30n3/articles/pnv30n3.48-53.pdf>. 48

<sup>123</sup> Revill, "John Cage."

<sup>124</sup> "27' 10.554" for a percussionist," John Cage, accessed November 24, 2019, [https://johncage.org/pp/John-Cage-Work-Detail.cfm?work\\_ID=14](https://johncage.org/pp/John-Cage-Work-Detail.cfm?work_ID=14).

<sup>125</sup> Charles, "Multi-Percussion in Undergraduate Percussion Curriculum," 13.

and 26' 1.1499 for a String Player.<sup>126</sup> All the works in the 10,000 things project are written in graphic notation and contain many indeterminate factors. Cage's plan in this series was to write for a range of instruments which have the possibility to be played as solos or simultaneously play these works in any combination to create a new work. The first recording of these works is a performance containing 45' for a Speaker, 34' 46.776" for a Pianist, 31' 57.9864" for a Pianist, 27' 10.554" for a Percussionist, and 26' 1.1499" for a String Player all being performed simultaneously.<sup>127</sup>

Unlike Milhaud's *Concerto for Percussion and Small Orchestra*, Cage's work doesn't require any melodic instruments to make the performance a success. It is entirely a solo work, with nothing required other than the percussionist and some thought.<sup>128</sup> Another significant difference in this work is the indeterminacy in its writing, as the notation, setup, and instrument selection are all unspecified and this is a drastic change from what has had seen earlier in the field of multi-percussion.<sup>129</sup>

27' 10.554" was not written for a performance that Cage had in mind, as it was one of Cage's experiments. This caused 27' 10.554" to not be premiered until February 2<sup>nd</sup> 1962<sup>130</sup> where it was performed in a limited capacity by Siegfried Rockstroh in Munich, who performed a shortened version named 7' 7.614. The entire work was not performed until 2<sup>nd</sup> of June 1964 by Max Neuhaus (who will be explored in 6.1) at Carnegie Hall.<sup>131</sup> Due to 27' 10.554's delayed premier the honour of the first work for multi-percussion that was performed goes to Stockhausen in 1959.

### 5.2.2 Stockhausen's *Zyklus* (1959)

Stockhausen's work *Zyklus* (1959) was the second work to be written for solo multi-percussion, the first work of solo multi-percussion by a European composer, and the first solo multi-percussion work to be performed. This work was premiered by Christoph Caskell on the 25<sup>th</sup> of August 1959 at Darmstadt.<sup>132</sup> There were many influences that led to the creation of this work. Firstly, he was trying to raise the skill level of percussionists as it was not where

---

<sup>126</sup> Samuel Solomon, "John Cage – 27'10.554" for a percussionist (1956)," Samuel z. Solomon, access November 20, 2019, <http://szsolomon.com/john-cage-27-10-554-percussionist-1956/>.

<sup>127</sup> Solomon, "John Cage – 27'10.554" for a percussionist (1956)."

<sup>128</sup> Revill, "John Cage."

<sup>129</sup> Charles, "Multi-Percussion in Undergraduate Percussion Curriculum," 14.

<sup>130</sup> John Cage, "27' 10.554" for a percussionist."

<sup>131</sup> "10000 things notes," MicroFest Record, accessed September 21, 2020, <https://microfestrecords.com/10000-things-notes/>.

<sup>132</sup> Martin Iddon, *New Music at Darmstadt* (United Kingdom: Cambridge University Press, 2013) 235.

he wanted them to be and, secondly, there is a small possibility that this is a response to Cage and his multi-percussion work.

Although there is no direct evidence, this possible influence from John Cage could have occurred during Cage's trip to Europe in 1958 where he did a series of talks in Darmstadt. Before Cage had arrived in Europe Pierre Boulez had written his infamous essay titled "*Schoenberg is Dead*" where he discusses that any composer not writing works in a surrealist style were wasting their time<sup>133</sup> as they are "useless".<sup>134</sup> The timing of this essay was not an accident as it was Boulez throwing the gauntlet at Cage just before his arrival. Cage had taken this as a personal attack (as was intended), and caused Cage to change his second talk in Darmstadt which he called "composition as a process".<sup>135</sup> These talks were Cage's attempts at attacking the serialism style of composition and the major European composers who wrote those works such as Boulez and, in particular, Stockhausen.

Cage's second talk was primarily focused on "indeterminacy." During the lecture Cage gave many examples of music that was written in Europe, and in particular German composers, that he considered to have works that are in an indeterminate style or have aspects that were indeterminate. The composers that Cage discussed ranged from Bach to Stockhausen, to demonstrate his point. Cage used Bach to add historical depth to his topic and Stockhausen was used to "criticizes modern European appropriation of his (Cage's) works".<sup>136</sup>

Cage's criticism of Stockhausen is pointed, as he considered Stockhausen's use of "indeterminacy to be unnecessary since it is ineffective" when discussing Stockhausen's work *Klavierstück XI* (1956). Cage states that it should have been written in a completely determinate style, as the indeterminate parts served no purpose. He also went on to attack Stockhausen further as he mentioned that the most interesting aspect of the work was that it was "written on an unusually large sheet of paper".<sup>137</sup> This was a significant criticism of Stockhausen's music as Stockhausen had prided himself on his passion for innovation and newness, which was, in fact, comparable to Cage and his music.<sup>138</sup>

---

<sup>133</sup> David Nicholls and Jonathan Cross, eds. *John Cage the Cambridge companion* (United Kingdom: Cambridge University Press, 2002), 36.

<sup>134</sup> Pierre Boulez, "Schoenberg Is Dead," In *Stock takings of an apprenticeship*, ed. Paule Thevenin, trans. Steven Walsh, (New York: Oxford University Press, 1991), 214.

<sup>135</sup> Revill, *The Roaring Silence*, 36.

<sup>136</sup> Revill, *The Roaring Silence*, 36.

<sup>137</sup> Revill, *The Roaring Silence*, 36.

<sup>138</sup> Revill, *The Roaring Silence*, 36.

Despite this information there is no direct evidence that has been found which suggests that Cage's criticism of *Klavierstück XI* has influenced Stockhausen writing of *Zyklus*. There are however many sources that compare the indeterminacy within *Zyklus* with *Klavierstück XI*.<sup>139</sup> This along with the fact that it is a work for multi-percussion leads to the speculation that he wrote *Zyklus* as somewhat of a reaction to 27' 10.554".

In addition to Cage's attack on his musical ideas, the other possible moment that led to Stockhausen writing a multi-percussion solo work were the challenges that arose in the percussion parts in his work *Gruppen III*. A massive work requiring three orchestras and 109 musicians, twelve of which are percussionists who play fifty-seven different instruments in total, requiring a skill level higher than was typically expected.<sup>140</sup> This may have led Stockhausen to realise that percussionists needed a more exclusive and higher level of training.

Stockhausen stated that "percussion players must become as important as the pianists."<sup>141</sup> As an attempt to raise the skill level and importance of percussionists Stockhausen approached Wolfgang Steinecke, the Director of the Darmstadt courses at the time,<sup>142</sup> to request that he start a percussion competition. As there were no percussion works to use in a competition Stockhausen offered to write one,<sup>143</sup> which led to the creation of *Zyklus*.<sup>144</sup>

### 5.2.3 Morton Feldman's *The King of Denmark* (1965)

*The King of Denmark* is an important work in the field as it has been described as an "anti-percussion" work<sup>145</sup> as it is unlike all works that have previously been written that include percussion and multi-percussion. Anti-percussion is a perfect description of this work as it is

---

<sup>139</sup> Elliot Antokoletz, *A History of Twentieth-Century Music in a Theoretic-Analytical Context* (New York: Routledge, 2014), 398-399.

<sup>140</sup> "Instrumentation works for Orchestra Gruppen," Karlheinz Stockhausen, accessed January 17, 2020, [http://www.karlheinzstockhausen.org/gruppen\\_english.htm](http://www.karlheinzstockhausen.org/gruppen_english.htm).

<sup>141</sup> Michael Udow, "An Interview With Karlheinz Stockhausen," *Percussive Notes Research Edition* 23, no. 4 (September 1985): 17, <http://publications.pas.org/archive/ressept85/articles/ressept85.04-47.pdf#search=%22zyklus%20how%20and%20why%22>.

<sup>142</sup> Stuart W. Gerber, "Karlheinz Stockhausen's Solo Percussion Music: A Comprehensive Study" (DMA thesis, 2003), 10, [https://etd.ohiolink.edu/pg\\_10?::NO:10:P10\\_ETD\\_SUBID:79364#abstract-files](https://etd.ohiolink.edu/pg_10?::NO:10:P10_ETD_SUBID:79364#abstract-files).

<sup>143</sup> Paul Griffith, *Modern Music and After* (New York: Oxford University Press, 2011), 210.

<sup>144</sup> Udow, "An Interview With Karlheinz Stockhausen," 17.

<sup>145</sup> Steven Schick, "The King of Denmark," Chris Villars, accessed November 26, 2019, <https://www.cnvill.net/mfschick.htm>.

revolting against the idea of what percussion is; by avoiding the classic loud bangs and crashes for which percussion had been known up until then.<sup>146</sup>

Feldman used unconventional notation and planning which contributed to his unique compositional style based on gesture, timbre, and non-metric relationships.<sup>147</sup> He first studied composition with Wallingford Riegger and Stefan Wolpe in the 1950's.<sup>148</sup> However, as he began composing his aesthetic was strongly influenced by abstract expressionist painters, such as Mark Rothko, Jackson Pollock, Franz Kline and his great friend at the time Philip Guston.<sup>149</sup> These artists helped him to create a sound world like nothing that had come before, this also one of the reasons that many of his earlier works were in graphic notation.<sup>150</sup>

In the early 1950's people started comparing and associating him with composers such as Earle Brown, Christian Wolff, David Tudor, and John Cage,<sup>151</sup> many of whom Feldman was friends with, and had a strong influence on his compositional process. Especially Cage's exploration in "chance music" led Feldman to experiment with the idea of indeterminacy however this was later given up for music that was more specifically notated.<sup>152</sup> This change in his writing happened before *The King of Denmark* was written, however he returned to write in an indeterminate setting for this work. There are suggestions that this decision was made to continue the tradition of indeterminate writing in multi-percussion works by Cage and Stockhausen.<sup>153</sup>

Feldman calls this work "the American answer to *Zyklus*"<sup>154</sup> as *Zyklus* is sometimes "frenzied and often loud"<sup>155</sup> and *The King of Denmark* is "calm and always quiet".<sup>156</sup> The way that this work answers *Zyklus* is through a "silent resistance to Stockhausen's expressivity".<sup>157</sup> These two works can be seen as a reflection of each other. In *Zyklus* Stockhausen is very specific in which instruments are required, the setup and sticks. There are only a few moments that are unclear and up to the performer to decide.<sup>158</sup> However, *The*

---

<sup>146</sup> Schick, "The King of Denmark."

<sup>147</sup> Cline, *The Graph Music of Morton Feldman*, 66-67.

<sup>148</sup> "Morton Feldman," Chris Villars, accessed November 26, 2019, <https://www.cnvill.net/mfbio.htm>.

<sup>149</sup> Jan Williams, "An interview with Morton Feldman, Jan Williams," Chris Villars, accessed December 3, 2019, <https://www.cnvill.net/mfjw1.htm>.

<sup>150</sup> Cline, *The Graph Music of Morton Feldman*, 293.

<sup>151</sup> Chris Villars, "Morton Feldman."

<sup>152</sup> Chris Villars, "Morton Feldman."

<sup>153</sup> Eberhard Blum, "Notes on Morton Feldman's 'The King of Denmark' by Eberhard Blum," trans. Peter Soderberg, Chris Villars, accessed December 4, 2019, [https://www.cnvill.net/mfblumking\\_eng.pdf](https://www.cnvill.net/mfblumking_eng.pdf).

<sup>154</sup> Blum, "Notes on Morton Feldman's 'The King of Denmark.'"

<sup>155</sup> David Cline, *The Graph Music of Morton Feldman* (United Kingdom: Cambridge university Press, 2016), 67.

<sup>156</sup> Cline, *The Graph Music of Morton Feldman*, 67.

<sup>157</sup> Blum, "Notes on Morton Feldman's 'The King of Denmark.'"

<sup>158</sup> Karlheinz Stockhausen, No. 9: *Zyklus* (London: Universal Edition, 1961).



*King of Denmark* is incredibly vague on all these fronts, the instrumentation, and notation are very ambiguous which allows the performer to come up with their own ideas, while preparing to play this work.<sup>159</sup>

Feldman does however control the way the performer interprets the score through specific instructions in the score to explain what symbols mean and how to measure time through the piece. Two of these rules that oppose the pre-constructed notions of what was expected of percussion instruments; these are to play without sticks as he requests the performer to create sounds only using the hands, fingers or arms, and that the dynamic range be as “soft as possible”.<sup>160</sup>

This work is also incredibly important to the field as it was the first work to be written for a specific percussionist as the work was dedicated to Max Neuhaus (to be explored in 6.1). During the writing of this work Neuhaus and Feldman met on many occasions to work out different rules and ways of making Feldman’s image of a “percussion soundscape” come to life.<sup>161</sup> Feldman was dogmatically asking Neuhaus to find different ways of playing the piece as quietly as possible until one meeting, Neuhaus tried to only use his fingers.

as percussion students, we used to practice our parts on stage just before a concert started. In order that the audience not hear us, we used our fingers instead of sticks, so I put my sticks down and started to play with just my fingers. Morty was dumbstruck, ‘that’s it, that’s it!’ he yelled<sup>162</sup>

This shows how percussionists were beginning to have more of an influence on the compositional process.

### **5.2.4 Wuorinen’s *Janissary Music* (1966)**

Another new work from this emerging world of solo multi-percussion is Wuorinen’s *Janissary Music*, premiered by Raymond DesRoches in 1966. This work is important for several reasons, one is that it is the first work that breaks from the idea of indeterminacy in the writing and to be written in traditional notation.<sup>163</sup>

---

<sup>159</sup> Morton Feldman, *King of Denmark* (New York: Peters Corporation, 1965).

<sup>160</sup>Feldman, *King of Denmark*.

<sup>161</sup> Blum, “Notes on Morton Feldman’s “The King of Denmark.”

<sup>162</sup> Max Neuhaus, “Morton Feldman, The King of Denmark (Realization date, 1964),” Chris Villars, accessed September 19, 2019, <https://www.cnvill.net/mfneuhaus.htm>.

<sup>163</sup> Charles, “Multi-Percussion in Undergraduate Percussion Curriculum,” 15.

It is the first multi-percussion work to be written in an entirely determinate style through a fully notated score in a traditional style, and the use of the twelve-tone row system of writing. The setup and instrumentation is also entirely set: marimba, vibraphone, twelve metal instruments, and twelve drums surround the performer.

These key changes in this work show that the development of multi-percussion solos has moved to the point where the composers does not need to invent their own notation system, as everything can be accomplished in traditional notation.<sup>164</sup>

### **5.3 Percussionist's influence**

These four works make up the beginnings of the first generation of solo works. These works were generally written as experiments of the composer, without any significant influence from a percussionist, with *The King of Denmark* being the one exception. Cage wrote his work as an experimentation, Stockhausen to improve the general skill level of percussionists, and Feldman to react to Stockhausen.

A major change that was to occur in the latter half of the first generation is the percussionist becoming more involved in the works that were being written. This involves the first virtuosi in the field coming to the forefront of the development of multi-percussion.

---

<sup>164</sup> Charles, "Multi-Percussion in Undergraduate Percussion Curriculum," 15.

## 6. Emergence of virtuosi

Solo multi-percussion continued to develop beyond their early stages of exploration and started to become a core part of the repertoire for percussionists. As these works approached the latter half of their first generation they began to be dedicated to specific percussionists. Max Neuhaus, Jean-Pierre Drouet, Sumire Yoshihara, Sylvio Gualda are some of the major percussionists who had works dedicated to them which helped push the art style forward. Many of these compositions foreshadow the second generation of multi-percussion works as percussionist were beginning to have more of an influence over the works being written.

### 6.1 Max Neuhaus

Max Neuhaus is considered to be the first and one of the most prominent early American solo percussionists. He was the first percussionist to champion these early works. His studies involved drumming with Gene Krupa, an American jazz drummer who was influential in the jazz drumming world.<sup>165</sup> His other main teacher was Paul Price at Manhattan School of Music, who introduced Neuhaus to many of the influential composers he would work with throughout his career.<sup>166</sup>

The contact that he had with leading composers of the time caused him to play many of the early multi-percussion works including *Zyklus* and *The King of Denmark*. One of his first performances was after he joined Pierre Boulez's contemporary chamber music ensemble. As part of this ensemble he was able to give solo recitals at Carnegie Hall and to tour Europe playing many of Stockhausen's works including the "impossible" *Zyklus*. These opportunities meant he performed over forty-five shows between 1959 and 1969 including solos and ensembles works.<sup>167</sup>

As stated in 5.2.3 *The King of Denmark* was dedicated to Neuhaus due to his influence on the work.<sup>168</sup> In addition to Feldman, Neuhaus worked with a large number of

---

<sup>165</sup> Stuart Morgan, "Max Neuhaus," *Frieze* 25, November – December, 1995, <https://frieze.com/article/max-neuhaus>.

<sup>166</sup> "Biography," *Bard Faculty News*, accessed December 19, 2019, <http://www.bard.edu/faculty/details/?id=2897>.

<sup>167</sup> Megan Murph, "Max Neuhaus and the Musical Avant-Garde" (Master's Thesis, Louisiana State University, 2013), 14, <https://pdfs.semanticscholar.org/2f29/382f35d1abf402bac238f1ca8ac96715ab7a.pdf>.

<sup>168</sup> Murph, "Max Neuhaus and the Musical Avant-Garde," 43.

composers and was leading the field of solo percussion until 1969 when Neuhaus had a major shift in career.<sup>169</sup> Neuhaus began to focus on sound installations over percussion performance, one of the possible reasons he decided to change his career direction is due to the logistics of transporting “2,000 pounds of gear” for each performance.<sup>170</sup> This was particularly challenging and frustrating for Neuhaus on his European tour.<sup>171</sup>

The challenge of moving gear and instruments required for exhaustive works in the first generation is incredibly influential. This problem is one that nearly every solo percussionist that followed Neuhaus would have to deal with. Which makes it a clear trigger into the creation of the second generation’s category of limited instrumentation works which will be explored in detail in 7.2

## 6.2 Jean-Pierre Drouet

Jean-Pierre Drouet is a French born multi-instrumentalist and composer. The work *Toucher* (1989) by Vinko Globokar<sup>172</sup> was written for him and is the first work to involve a limited instrumentation and human voice, which is symbolic of the changing of the generations.

Drouet originally was intending to be a concert pianist however due to an accident at a young age he had to deviate from this and started to explore percussion, trumpet, and composition.<sup>173</sup> He studied percussion with Felix Passerone, and composition with André Hodeir.<sup>174</sup> Following his studies in France he moved to India to learn how to play traditional Indian instruments such as the tabla and tumbek.<sup>175</sup> At this point in his musical journey he wasn't looking for a career in classical percussion as he was more interested in jazz and other improvised art forms.

A chance encounter with Luciano Berio changed his plan and turned him from this path and down the way of contemporary percussion. As part of his work in this field he began work with many leading composers of the time including Berio, Stockhausen, and Globokar.<sup>176</sup> Eventually his journey lead him to perform and record Bartok’s *Sonata for Two*

---

<sup>169</sup> Murph, “Max Neuhaus and the Musical Avant-Garde,” 62.

<sup>170</sup> Murph, “Max Neuhaus and the Musical Avant-Garde,” 62.

<sup>171</sup> Murph, “Max Neuhaus and the Musical Avant-Garde,” 62.

<sup>172</sup> Vinko Globokar, *Toucher* (New York: Edition Peters, 1973)

<sup>173</sup> “Jean-Pierre Drouet Biography,” Cdmc, accessed December 4, 2019, <http://www.cdmc.asso.fr/en/ressources/compositeurs/biographies/drouet-jean-pierre-1935>.

<sup>174</sup> Cdmc, “Jean-Pierre Drouet Biography.”

<sup>175</sup> Cdmc, “Jean-Pierre Drouet Biography.”

<sup>176</sup> Cdmc, “Jean-Pierre Drouet Biography.”

*Pianos and Percussion* with another French percussion/timpani virtuoso Sylvio Gualda (who will be discussed in 6.4).

This experience and new focus on contemporary percussion playing did not stop him from playing jazz and improvised music. He became a member of New Phonic Art alongside fellow performers Michel Portal, Vinko Globokar, and Carlos Roqué Alsina.<sup>177</sup> This group's mission was to perform music in a "completely unrestricted improvisation" style, it was also used as an opportunity for these performers/composers to have their music played.<sup>178</sup>

### 6.2.1 Vinko Globokar's *Toucher* (1973)

*Toucher* was written while Globokar and Drouet were working together in the New Phonic Art ensemble.<sup>179</sup> *Toucher* was written as part of a larger collection of solo and chamber works for ten players and a variety of instruments called *Laboratorium*. This collection also includes *Corporel* (1985),<sup>180</sup> which is another major percussion work which features a percussionists using voice and their own body. Although this work is important in the evolution of percussion it is out of the scope of this thesis as it fits outside the definition of multi-percussion.<sup>181</sup> *Toucher* is written for a relatively small number of instruments and voice with the instruments representing the vowels in the French language.<sup>182</sup> These two aspects make this work ground-breaking as it is the first work to be written for a small number of instruments (limited instrumentation) to make a setup that doesn't engulf the performer.<sup>183</sup>

The other aspect is that it is the first work to be published that features a speaking percussionist.<sup>184</sup> The use of speech and playing are entwined in this work in such a way to make the sounds of the instruments appear to be an extension of the voice as they are intended to sound like French vowels.<sup>185</sup> *Toucher* is the first in line of works that start pointing towards the second generation of multi-percussion works which generally uses smaller setups which will be explored fully in 7.2.

---

<sup>177</sup> Miguel Ficher, Martha Furman Schleifer, John M. Furman, *Latin American Classical Composers: A Biographical Dictionary* (Lanham: Scarecrow Press, 2002), 24.

<sup>178</sup> Miguel Ficher, Martha Furman Schleifer, John M. Furman, *Latin American Classical Composers: A Biographical Dictionary* (Lanham: Scarecrow Press, 2002), 24.

<sup>179</sup> Cdmc, "Jean-Pierre Drouet Biography."

<sup>180</sup> Bonnie Whiting, "The Speaking Percussionist as Story teller," *The Modern Percussion Revolution: Journeys of the Progressive Artist*, ed. Kevin Lewis and Gustavo Aguilar (New York: Routledge, 2014) 103.

<sup>181</sup> Whiting, "The Speaking Percussionist as Story teller," 106.

<sup>182</sup> Whiting, "The Speaking Percussionist as Story teller," 106.

<sup>183</sup> Schick, *The Percussionist's Art*, 25.

<sup>184</sup> Schick, *The Percussionist's Art*, 149.

<sup>185</sup> Globokar, *Toucher*

### 6.3 Sumire Yoshihara

Sumire Yoshihara (born 1949) is considered by some as one of the most well-known and well-rounded freelance percussionists in Japan. Her career has spanned five decades, and she can still be seen working. In the 1970's she appeared on nearly every recording of chamber music that included percussion,<sup>186</sup> as well as premiering numerous works for solo percussion. In an article on the Percussive Arts Society journal database she is accredited with giving seven premiers out of the eighteen solo percussion works that were written between 1971 and 1982.<sup>187</sup>

At a young age Yoshihara started playing mallet percussion instruments as she was following in a growing trend in Japan due to marimba virtuosos such as Keiko Abe.<sup>188</sup> This was until she saw a performance in early high school by Yamaguchi where he performed *Zyklus* as well as two works by Japanese composers, Yoshirō Irino and Makoto Moroi. After seeing the concert Yoshihara said that she “decided, forget the marimba, I’m going to be a percussionist. I can’t deny the fact that the marimba was the hottest thing, Michiko was there, Keiko Abe, it was like everyone was pursuing the marimba, I also wanted to do something different.”<sup>189</sup>

In 1972 Yoshihara won several awards at the Geneva International Music Competition including First Prize, the Prix American, and the Grand Prize. These awards led to her emerging as an active soloist in Europe and America.<sup>190</sup> Soon after this competition she came to the realisation, as many other solo percussionists did at the time, that it was immensely difficult to find enough repertoire to keep up with her performance demands.

She mentions that she “had just graduated, quickly won the competition, made a splashy debut, and found (herself) out of repertoire instantly”. There were only a couple of works that were at a high enough performance standard, so her life became a cycle of commissioning new works and performing them. Many of these commissions were from major Japanese composers, such as Fukushi (*Ground*), Kitazume (*Shadows IIIa*), Takahashi (*Turn the Corner of the Morning*), Ichiyanagi (*Arrangements*), and Kondo, (*Pendulums*). The

---

<sup>186</sup> Ryan C. W. Scott, “The Art of Marimba in Tokyo: Emergence in the Twentieth Century” (DMA thesis, University of Toronto, 2015), 65, <https://tspace.library.utoronto.ca/handle/1807/71624>.

<sup>187</sup> Keiko Abe, “Japanese Percussion and Marimba Music,” *Percussive Notes* 22, no. 3 (April 1984): 51, <http://publications.pas.org/archive/8404/articles/84.04.51-60.pdf#search=%22norio%22>.

<sup>188</sup> Scott, “The Art of Marimba in Tokyo,” 123.

<sup>189</sup> Scott, “The Art of Marimba in Tokyo,” 67.

<sup>190</sup> Scott, “The Art of Marimba in Tokyo,” 68.

instrumentation of these works varied as some were for marimba while many others were multi-percussion pieces.<sup>191</sup>

Yoshihara is important as she represents how percussionists were running out of repertoire after they performed the early works in the first generation. Many of them played *Zyklus* and *The King of Denmark* and then ran out of repertoire, this highlights a trend that emerges in the second generation of multi-percussion solos, percussionists commissioning works for themselves to perform. This will be explored in detail in 7.

### 6.3.1 Norio Fukushi's *Ground* (1973)

Out of all the works Yoshihara had commissioned the one that will be explored is *Ground* by Norio Fukushi as it uses one of the largest number of instruments written for a solo performance at this point. Fukushi originally studied composition at Tokyo University of the Arts before moving to France where he was taught by Olivier Messiaen (1973).<sup>192</sup> He was a composer who had already written for a large number of mediums before writing for multi-percussion. Many of these works were for orchestra, chamber, vocals, and solo instrumental works, with a number including traditional Japanese instruments alongside more standard European instruments.

He was commissioned to write *Ground* by Yoshihara in 1973, which he saw as a chance to write for a large range of instruments from both Japanese and European cultures as mixing these two cultures sounds was a major interest of his. *Ground* follows the trend of many of the first generation of multi-percussion solos to surround the soloist with gear. This work does however take it to another extreme as the work contains forty-four different percussion instruments, to make it one of the largest solo multi-percussion work to date.<sup>193</sup>

These forty-four different instruments include multiple bass drums, cymbals, cow bells, woodblocks, temple blocks multiple snare drums, tam tams, wind chimes, crotales, harmonica and a marimba.<sup>194</sup> This number of instruments come with a significant number of negatives as the performer would need to commit a significant amount of time to find all the instruments and to design a setup for this work, let alone learn the work. Any way this work

---

<sup>191</sup> Scott, "The Art of Marimba in Tokyo," 68.

<sup>192</sup> "Norio Fukushi," Music From Japan, accessed November 4, 2019, <http://www.musicfromjapan.org/cgi-bin/new/composer.py/composer/62>.

<sup>193</sup> Charles, "Multi-Percussion in Undergraduate Percussion Curriculum," 16.

<sup>194</sup> Norio Fukushi, *Ground* (Tokyo: Ongaku No Tomo Sha Corp, 1970).

is set up it makes the performer appear to be trapped in a cage of percussion instruments, which can be an issue of space and ability to perform.

## 6.4 Sylvio Gualda

Sylvio Gualda was another influential percussionist in the latter half of the first generation of multi-percussion works. He was appointed as the solo timpanist of Paris Opera Orchestra in 1968 and, soon after he won this position, he also started his career as a soloist with a performance of *Zyklus*.<sup>195</sup> However, this wasn't a typical performance of *Zyklus* as Gualda's playing was accompanied by ballet dancers, choreographed by Michel Descomby, who was the main choreographer of the ballet in Paris at the time.<sup>196</sup>

In 1970 Gualda began working with Jean-Pierre Drouet, and pianists Katia and Merielle Labeque (sisters). This ensemble premiered works by Marius Constant and Berio, in addition to numerous performances of Bartok's *Sonata for Two Pianos and Percussion*.<sup>197</sup> From this moment on Gualda worked closely with many composers with one of the most important being Xenakis whose works Gualda frequently performed.

### 6.4.1 Xenakis's *Psappha* (1975)

Xenakis is a Greek French composer who was interested in music from a young age, however it wasn't until he was in France in the 1950's that he started looking for a composition teacher. His efforts however were in vain as he was rejected by numerous teachers in Paris as his music was too unconventional.<sup>198</sup>

After countless rejections Xenakis was told to meet with Messiaen who, after seeing his music, noticed that he was not like the other students he had come across.<sup>199</sup> Messiaen told Xenakis he should take advantage of his strengths, being his Greek heritage, mathematics, and architecture. This led him to base many of his compositions on mathematical formulas as well as writing a significant number of compositions for percussion.<sup>200</sup>

---

<sup>195</sup> Sylvio Gualda, "The academy for creation," accessed September 20, 2019, [https://acanthus.ircam.fr/centre\\_2009/bio\\_2009/gualda\\_gb.htm](https://acanthus.ircam.fr/centre_2009/bio_2009/gualda_gb.htm).

<sup>196</sup> "Biography of Michel Descombey," The Biography, accessed January 11, 2020, <https://thebiography.us/en/descombey-michel>.

<sup>197</sup> The academy for creation, "Sylvio Gualda."

<sup>198</sup> "Iannis Xenakis," Hellenica world, accessed January 1, 2020, <http://hellenicaworld.com/Greece////Person/en/IannisXenakis.html>.

<sup>199</sup> Hellenica world, "Iannis Xenakis."

<sup>200</sup> Hellenica world, "Iannis Xenakis."



*Psappha* in many ways is one of the master works in the field of percussion, its writing and subsequent worldwide touring with Gualda made sure that the work would reach many percussionists. Xenakis wrote this work in 1975 and dedicated it to Gualda, who performed the world premiere later that year in London.<sup>201</sup> In the years that followed Gualda toured the world, championing this work and many others like it. This tour included a visit to Australia where he performed in Melbourne and Sydney. Schick, a major percussionist to be discussed in 7.2.2.1, states that:

*Psappha*, as we now know, is savage and frightening. The sheer loudness of it, the naked rhythms, the brutal mechanics of composition—the implications were staggering. It has been so widely played, taught, and discussed that it is very nearly a piece of classical music. There are even schools of thought about interpretative approaches. *Psappha* has become a principal model with which to compare all other percussion solos. It changed everything about how we listened to and played percussion music from *Zyklus* onward.<sup>202</sup>

This work follows the trend in the first generation of writing an exhaustive work that engulfs the performer. There are at least nineteen instruments required for this work after being separated into six different groups, A-F.<sup>203</sup> An area in which this work is very original is that it leaves the instrument choice very open leaving the performer to select instruments with, pitch, sound and colours being the only requirement. Another aspect of this work is it being written in a purely grid format.<sup>204</sup>

The work's name comes from "Sappho", a Greek poet. Sappho had a very clear style, which is sensual and melodic, strangely enough neither of these words would be used to describe *Psappha*.<sup>205</sup> However, the name allegedly comes from the idea that her works have a distinct rhythmic structures and passages, which *Psappha* shares.<sup>206</sup>

### 6.4.2 Xenakis's *Rebonds* (1987-89)

Xenakis wrote another major work for percussion, *Rebonds* (1987-89), also dedicated to Gualda. This work is also considered one of his masterpieces and was premiered in 1988 by Gualda. *Rebonds* was written in two parts (*a* and *b*) and can be performed in either order,

---

<sup>201</sup> Charles, "Multi-Per percussion in Undergraduate Percussion Curriculum," 16.

<sup>202</sup> Schick, *The Percussionist's Art*, 193.

<sup>203</sup> Iannis Xenakis, *Psappha* (Paris: Editions Salabert, 1976).

<sup>204</sup> Xenakis, *Psappha*.

<sup>205</sup> Samuel Solomon, "Iannis Xenakis, *Psappha* (1975)," Samuel z. Solomon, access November 20, 2019, <http://szsolomon.com/iannis-xenakis-psappha-1975/>.

<sup>206</sup> Solomon, "Iannis Xenakis, *Psappha* (1975)."

*ab* or *ba*. It is a work that pushed what was technically thought as possible to play on percussion instruments.<sup>207</sup> *Rebonds a* is focused on rhythms and gradually increase in intensity through increasing the number of notes that are being played in quick succession.<sup>208</sup> *Rebonds b* is much groovier through the use of repeated ideas and is driven with sixteenth notes on the high bongo.<sup>209</sup> Unlike *Psappha* the notation is written in a traditional way and the instrument choice is more standard, which makes *Rebonds* easier to follow.<sup>210</sup>

## 6.5 Issues with the first generation

Many of the works written in the first generation of multi-percussion solos follow a similar trend of being written in an exhaustive mind set, where the focus is on quantity of sounds rather than quality of sounds. This became a major issue for many of the early percussionists such as Neuhaus, due to the logistics of traveling with these works becoming too immense to deal with. Other problems that this caused were sourcing the instruments; finding a space large enough to practice the works; and then traveling with the setups.<sup>211</sup>

This combined with the limited number of high level works available to touring performers created a need to commission new works which would fill this gap in the repertoire.<sup>212</sup> These changes would lead to the second generation of works which are similar to *Toucher's* use of limited instrumentation.<sup>213</sup>

The key factors that make up the second generation are the percussionists commissioning new works that fit their needs for travel, and the new categories of multi-percussion works being limited instrumentation (7.2) and multi-drum (7.3).

---

<sup>207</sup> Schick, *The Percussionist's Art*, 203- 213.

<sup>208</sup> James Harley, *Xenakis: His Life in Music* (Nebraska: Psychology Press, 2004), 192-193.

<sup>209</sup> xenakis: *His Life in Music*, 192-193.

<sup>210</sup> Iannis Xenakis, *Rebonds* (Paris: Editions Salabert, 1991).

<sup>211</sup> "Max Neuhaus," *Monoskop*, accessed November 14, 2019, [https://monoskop.org/Max\\_Neuhaus](https://monoskop.org/Max_Neuhaus).

<sup>212</sup> Schick, *The Percussionist's Art*, 25.

<sup>213</sup> Charles, "Multi-Percussion in Undergraduate Percussion Curriculum," 16.

## 7. The second generation of solo multi-percussion works

The first generation features the trend of composers who reached out and wrote works for specific percussionists, the one of the second generation of solo multi-percussion most significant change is that this is now inverted and percussionists started to start the conversation with composers and began commissioning works. These commissions led to more varied types of compositions, which required new ways of categorisation.

All works discussed throughout this dissertation can fit into three categories exhaustive, limited instrumentation, and multi-drum works. The table below outlines how they are separated. (Works in bold are yet to be discussed in detail)

Exhaustive	Limited Instrumentation	Multi-drum
Milhaud's Concerto for percussion and small orchestra (1932) Cage's 27' 10.553" (1955) Stockhausen Zyklus (1959) Feldman's King of Denmark (1965) Wuorinen's Janissary music (1966) Tircuit's Percussion concerto (1969) Fukushi's Ground (1973) Xenakis' Psappha (1975) <b>Per Nørgård's I Ching (1982)</b>	Globokar Toucher (1973) <b>Frederic Rzewski's To The Earth (1985)</b> <b>Brian Ferneyhough's Bone Alphabet (1991)</b> <b>Michael Gordon's XY (1997)</b>	<b>Maki Ishi's Thirteen Drums (1985)</b> <b>Kevin Volans' She who sleeps with a small blanket (1985)</b>

This table show that the majority of works written after the 1980's are placed in the limited instrumentation category as the ability to travel with a setup was becoming increasingly important.

### 7.1 Exhaustive works

Exhaustive works focus on the sounds coming from a large quantity of instruments, for example multiple drums, metal and wooden instrument.<sup>214</sup> These works surrounded and engulfed the performer entirely, sometimes the set up for these works could take longer than

<sup>214</sup> Charles, "Multi-Percussion in Undergraduate Percussion Curriculum," 17.

performing them. This category of work was most common throughout the first generation of multi-percussion works. (*27' 10.554"*, *Zyklus*, and *Psappha*). While this category is less popular throughout the second generation of works, there are still a few works that can be classified as exhaustive.

### 7.1.1 Per Nørgård's *I Ching* (1982)

*I Ching* was commissioned by Gert Mortenson (explored in 7.1.1.1). It is exceptionally important for two reasons: it is the first multi-percussion solo to last for longer than 30 minutes, as well as being the first multi-percussion solo to be written over multiple movements.

Per Nørgård (born 1932), began studying with Danish composer Vagn Holmboe, a major figure in the Danish music scene, at the age of seventeen. Nørgård is considered by many as potentially the most prominent and influential composer from Denmark since Carl Nielsen.<sup>215</sup> Many of his compositions are evenly distributed between all forms of writing; chamber, orchestral, solo, opera, theatre, and soundtracks.

*I Ching* (1982), is not the first work that Per Nørgård wrote for percussion, the first work is *Waves* written in 1969, some of the ideas that he uses in *Waves* are reinvented in *I Ching*. One of these ideas was his compositional technique, which he refers to as the 'infinity series' and is used extensively in both of the works that he wrote for percussion.<sup>216</sup>

There are many reasons why this work is influential, one of these being that it is the first work of solo multi-percussion to be written over multiple movements.<sup>217</sup>

- I. Thunder Repeated: The Image of Shock (hexagram no. 51)
- II. The Taming Power of the Small - 9 sounds (hexagram no. 9)
- III. The Gentle, the Penetrating (hexagram no. 57)
- IV. Towards Completion: Fire over Water (hexagram no. 64)

Each of these movements have substantially different setups,<sup>218</sup> leading it to be an exhaustive work. The vast array of instruments in these four different setups results in there being an enormous number of instruments on the stage in a performance of the entire work. In some performances of this work percussionists pick a selection of movements to perform,

<sup>215</sup> "Per Nørgård Biography," Musical Sales Classical, accessed November 2, 2019, <http://www.musicalsclassical.com/composer/short-bio/Per-N%C3%B8rg%C3%A5rd>.

<sup>216</sup> Musical Sales Classical, "Per Nørgård Biography."

<sup>217</sup> Charles, "Multi-Percussion in Undergraduate Percussion Curriculum," 48.

<sup>218</sup> Per Nørgård, *I Ching*, (Copenhagen: Edition Wilhelm Hansen, 1982).

purely due to the instrumentation of the movements. The first movement in particular is hard to perform as it is difficult to obtain all the instruments especially the multiple tuned nipple gongs, which can be quite rare.<sup>219</sup> The third movement is one of the most popular as it only uses timpani, two temple bowls, a kalimba, and ankle bells, making it a movement that is of limited instrumentation.

As this work is written over four movements it also makes it the longest multi-percussion solo written since *27'10.554"*, which is a significant outlier as the majority of solo percussion works are less than 15 minutes. As can be seen in the following table.

Works Examined	Average Duration (mins)
<i>27' 10.554"</i>	27:10.554
<i>Zyklus</i>	11:00
<i>King of Denmark</i>	6:00
<i>Janissary music</i>	12:30
<i>Toucher</i>	9:30
<i>Ground</i>	15:40
<i>Psappha</i>	10:00-14:00
<b><i>I Ching</i></b>	<b>35:00-40:00</b>  <b>1st 10:00-11:00</b> <b>2nd 10:00-11:00</b> <b>3rd 5:00-6:00</b> <b>4th 10:00-11:00</b>

This begins to show that multi-percussion has continued to develop as it has become an instrument that can sustain interest over a longer performance.

#### *7.1.1.1 Gert Mortensen*

This work was commissioned by Gert Mortensen (born in Denmark in 1958) who studied at the Royal Academy of Music in Copenhagen, as part of the soloist program. Following this time he became the principal percussionist with the Royal Danish Orchestra and held this position for twenty-five years. As he became more interested in being a soloist, he began to

---

<sup>219</sup> Samuel Z. Solomon, *How to Write for Percussion: A Comprehensive Guide to Percussion Composition*, 2nd ed. (United Kingdom: Oxford University Press, 2016), 154.

perform in Europe, USA, Japan, Australia, and China. He is currently the head of Timpani and Percussion at the Royal Academy of Music, and he still has a very active role touring especially around China.<sup>220</sup>

As part of his career as a touring performer he needed there to be more works that were up to an elite enough standard to perform, which led him to commission a large number of works from various leading Scandinavian composers. Per Nørgård, Sven-david Sandström, Pelle Gudmundsen-Holmgreen, Poul Ruders, and Áskell Másson., among those who were commissioned.<sup>221</sup>

*I Ching* is the most important of these works in the development of multi-percussion, and Mortenson had a significant effect on the writing of this work in particular the third movement. When commissioning the work Mortensen approached Nørgård with some ideas, including using kalimba, Tibetan cup bells, and a drum as a resonating platform to make the kalimba louder, which directly led to the creation of the third movement of *I Ching*.<sup>222</sup>

## 7.2 Limited instrumentation works

Almost as a reaction to the works that fit into the category of exhaustive, countless works that fit into the category of limited instrumentation started to be written in the 1980's. These works follow in the footsteps of *Toucher* by Globokar, the works that fit into this category focus on the quality of the sounds from a relatively small number of instruments rather than the sheer quantity of sounds through the use of a large number of instruments.<sup>223</sup> These works were being requested by percussionists who wanted and needed works that would be easy to travel with. Steven Schick suggests that these changes are the tell-tale signs of the second generation of multi-percussion works.<sup>224</sup>

### 7.2.1 Frederic Rzewski's *To the Earth* (1985)

This work is symbolic of the rise of limited instrumentation works and the influence that percussionists were having on the field. The first work being explored in this category is *To the Earth* by Frederic Rzewski and is very similar to *Toucher*.

---

<sup>220</sup> "Biography," Gert Mortenson, accessed November 1, 2019, <https://gertmortensen.com/biography/>.

<sup>221</sup> Gert Mortenson, "Biography."

<sup>222</sup> Gert Mortensen, "I Ching Kalimba," Kalimba Magic, accessed November 2, 2019, <https://www.kalimbamagic.com/newsletters/newsletter10.01/iching.shtml>.

<sup>223</sup> Charles, "Multi-Percussion in Undergraduate Percussion Curriculum," 17.

<sup>224</sup> Schick, *The Percussionist's Art*, 25

Although these two works are very similar there does not appear to be any direct connection between these two composers. Both of these works share: the setup being written for a small number of instruments and the performer speaking while playing. *To the Earth* approaches these two features in a very different way to *Toucher*, which combines the voice and the instruments to create a unified sound. Compared to *To the Earth* which is an ancient prayer to the goddess of the earth and the percussion instruments are used to support the atmosphere created in the text. The text in this work is a pseudo-Homeric hymn that was potentially written during the 7th century titled “*The Earth Mother of All*” and uses four flowerpots as part of this prayer to create the atmosphere of an ancient ritual.<sup>225</sup>

*To the Earth* was created after percussionist Jan Williams requested that Frederic Rzewski compose a work that used a small number of instruments that could be easily transported while on tour. Rzewski decided to use flower pots as his instrument as “Not only do they have a beautiful sound but they don’t have to be carried around at all: in every place where one plays the piece, they can be bought for a total cost of about one dollar”.<sup>226</sup> The choice in this instrumentation made it very easy for Williams to travel with.

Another work that Rzewski wrote for Jan Williams at this time is *Lost and Found*, which is a piece where the performer is asked to be as close to naked as possible, while performing actions on a table, chair, and reciting a text from a soldier in the Vietnam war.<sup>227</sup> This is another work that would have been very easy to travel with.

### 7.2.1.1 Jan Williams

Jan Williams was in the same generation of players as Max Neuhaus; they were both students under Paul Price at the Manhattan School of Music.<sup>228</sup> Here they played in the percussion ensemble and created links with many major composers which helped their careers. This ensemble was the first group to perform the early percussion ensemble music including the works Cage wrote in the 1930’s, as well as commissioning new works from significant composers of the time.<sup>229</sup>

---

<sup>225</sup> “Focus day 2010 Ecology of Percussion Concert Program,” Percussive Arts Society, accessed December 4, 2019, <https://www.pas.org/docs/default-source/web-extras-audio-files/2010FocusDay.pdf?sfvrsn=0&sfvrsn=0>.

<sup>226</sup> Percussive Arts Society, “Focus day 2010 Ecology of Percussion Concert Program.”

<sup>227</sup> Frederic Rzewski, *Lost and Found* (Brussels: Sound Pool Music, 1985).

<sup>228</sup> “Biography,” Bard Faculty News, accessed December 19, 2019, <http://www.bard.edu/faculty/details/?id=2897>.

<sup>229</sup> Fairchild, “Paul Price Hall of Fame.”

Playing in this ensemble led the students (Neuhaus and Williams) to create strong connections with many of the leading composers of the time.<sup>230</sup> After his studies he was invited to be part of the Creative Associates for the Centre of the Creative and Performing Arts in 1964, as part of the Buffalo University.<sup>231</sup> It was here that he started the Buffalo University Percussion Ensemble, which he ran in similar way to Price's. Williams was one of the most influential early percussionists due to his connections with many of the major composers of the time.<sup>232</sup>

### 7.2.2 Brian Ferneyhough's *Bone Alphabet* (1991)

*Bone Alphabet* is a work written by Brian Ferneyhough in a style known as New Complexity,<sup>233</sup> which is achieved in this work by overlapping difficult cross-rhythms. This work was commissioned by Steven Schick, who commissioned over 150 solos for percussion throughout his career. This work is so complex that it took Schick multiple days to learn the first bar of the work when he was preparing for the premier.

Schick met Ferneyhough in 1991, on his first day on staff at the University of California, and on this day he requested that Ferneyhough write a piece for him.<sup>234</sup> The only restriction being that the instruments are "small enough to be transportable as part of the performer's personal luggage when traveling by air".<sup>235</sup> Schick was performing around America so frequently it was very important for him to be able to easily travel by plane.

After playing around with multiple ideas Ferneyhough decided to write a piece for seven different instruments (can be non-traditional instruments).<sup>236</sup> Each of these instruments are to be chosen by the performer as they are unspecified. There are however a few rules that the performer must follow when choosing each instrument. These rules are;

- They must be able to have an extremely large dynamic range, match each other with "similar attack and decay characteristics".
- Instruments next to each other are not meant to be made of the same material.

---

<sup>230</sup> Fairchild, "Paul Price Hall of Fame."

<sup>231</sup> "Biography," Bard Faculty News, accessed December 19, 2019, <http://www.bard.edu/faculty/details/?id=2897>.

<sup>232</sup> Micheal Rosen, "Jan Williams: Pioneer and Visionary," *Percussive Notes* 56, No.5 (November 2018): 68, <http://publications.pas.org/archive/November2018/1811.68-71.pdf#search=%22jan%20williams%22>.

<sup>233</sup> Schick, *The Percussionist's Art*, 90.

<sup>234</sup> Lewis and Aguilar: *The Modern Percussion Revolution*, 208.

<sup>235</sup> Brian Ferneyhough, "Bone Alphabet Programme Note," Steve Weiss Music, accessed November 3, 2019, <https://www.steveweissmusic.com/product/bone-alphabet-ferneyhough/multi-percussion-solo>.

<sup>236</sup> Lewis and Aguilar: *The Modern Percussion Revolution*, 208.



This leaves the performers choice of instruments very open while restricting them enough so they can't deviating from the original intention of the work.<sup>237</sup>

### 7.2.2.1 *Steven Schick*

Schick is known by many as one of the most influential percussionists of his generation and by the time he was finishing his undergraduate recitals, he had performed nearly all the works written for percussion at the time.<sup>238</sup>

Schick has contributed extensively to the development of the field of multi-percussion due to his strong interest in contemporary music, which started from very early on in his time at university. As a student he was part of the Centre for New Music, a performance organisation devoted to modern repertoire. This organisation gave composers at the university a chance to test their music and perform them for the general public.<sup>239</sup> At one of these performances he saw a percussionist perform a work by Stockhausen and he realised he was at the beginning of a new and special art form involving percussion (multi-percussion). He realised that he “related to the idea that something important was being invented and discovered, and I could be a part of that”.<sup>240</sup>

After finishing his studies at the University of Iowa he travelled to Germany, on a Fulbright Scholarship, to study under Bernhard Wulff, which allowed him to be thrown into the German percussion scene.<sup>241</sup> Schick states Wulff was the “Photographic Negative” of his old teacher in Iowa. He mentions both his teachers had a focus on fundamental technique, which also became the foundation of his ideologies. The most important lesson was one he received from Wulff who instilled the idea that “contemporary music was never this crazy you-could-do-whatever-you-want-to thing; it mattered whether or not you could play a decent roll.”<sup>242</sup>

When Schick returned to the America, he joined the staff at the California State University-Fresno. He brought many major contemporary ensemble works back from Europe so he would be able to play them with his students including Xenakis' *Persephassa*.<sup>243</sup> The California State University-Fresno did not focus on performing or teaching contemporary

---

<sup>237</sup> Schick, *The Percussionist's Art*, 98.

<sup>238</sup> Lauren Vogel Weiss, “Steven Schick Hall of Fame,” Percussive Arts Society, accessed December 13, 2019, <https://www.pas.org/about/hall-of-fame/steven-schick>.

<sup>239</sup> Weiss, “Steven Schick.”

<sup>240</sup> Weiss, “Steven Schick.”

<sup>241</sup> Weiss, “Steven Schick.”

<sup>242</sup> Weiss, “Steven Schick.”

<sup>243</sup> Weiss, “Steven Schick.”

music, regardless of this Schick still decided to play this work and ones like it with his students. Schick realised while playing these works with students, who were not purely focused on contemporary music, that this music was for everyone not just the “musical elite”.<sup>244</sup>

Around this same time Schick began a six weeks assignment with a not-for-profit organisation which put new up and coming performers into performance spaces that were public and very unconventional. Over these 6 weeks he would perform *Zyklus* during lunch breaks at a fruit packing plant, at a Kiwanis Club, in libraries, and old-folks homes, basically to anyone who would be willing to listen. These experiences with musically untrained audiences led to him to the understanding that this modern repertoire could be for everyone, and the only difference was “whether you intended it for them or not”.<sup>245</sup>

In 1991 Schick accepted a position at the University of California-San Diego where he still teaches. A university that commits a large amount of its time and resources into new music works and performances. As part of this he has created an ensemble known as Red Fish Blue Fish, which performs many works for percussion ensemble.<sup>246</sup> He has taught a large number students who have become major members of the solo percussion scene. These include Terry Longshore, Vanessa Tomlinson, Brett Reed, Ivan Manzanilla, Aiyun Huang, Morris Palter, and Fiona Digney.

Throughout his career he has commissioned and premiered more than 150 different works for solo percussion. Some of the more notable works are *Anvil Chorus* (1991) by David Lang, and *Bone Alphabet* by Brian Ferneyhough (1992).

### 7.3 Multi-drum works

This category is used to explore works that only use drums (Membranophones), the most significant works that fit into this category are Ishii Maki’s *Thirteen Drums* (1985) and Michael Gordan’s *XY* (1999). Unlike the previous two categories this one can be considered a sub-category as works within this category can also be either limited Instrumentation or exhaustive. For example, *XY* is a multi-drum work that uses four small drums which means it technically fits into limited instrumentation, while *Thirteen Drum* could also be considered an exhaustive work.<sup>247</sup>

---

<sup>244</sup> Weiss, “Steven Schick.”

<sup>245</sup> Weiss, “Steven Schick.”

<sup>246</sup> Weiss, “Steven Schick.”

<sup>247</sup> Charles, “Multi-Percussion in Undergraduate Percussion Curriculum,” 17.

### 7.3.1 Ishii Maki's *Thirteen Drums* (1985)

Ishii Maki is a Japanese composer who wrote works which combined classic European and Japanese musical styles. Some of his most famous works are *Monochrome*,<sup>248</sup> a work for orchestra and Taiko drumming (a Japanese style of drumming), and works for Kodo, which is Japan's premier taiko group. Maki was very interested in drumming of all types as he was aware that it was a relatively new world of music to explore that has only gained full recognition in the twentieth century.<sup>249</sup>

Maki was of the opinion that percussion was an underdeveloped field, especially when compared with the writing and playing of other traditional Western classical instruments, with violin and piano being two of the most developed.<sup>250</sup> Maki also felt that percussion was unconnected with the history of Western Art Music, which meant he could achieve something new when he wrote for those instruments.<sup>251</sup> This made Maki a great advocate for percussion and, in his research into the field, he found that it was a naturally powerful instrument that was full of expressivity which he tried to bring out in his writing.

In an attempt to further develop the style, he wrote many works for percussion and percussion ensemble, a great number were for solo works for multi-percussion. These works are *Gray* (1978), *Afro-Concerto* (1982), *Thirteen Drums* (1985), *For Lily* (1988), *Percussion Concerto -- South - Fire – Summer* (1992), and *Fourteen Percussions* (2000).<sup>252</sup> Through these compositions it can be seen that his style of writing percussion works features many ideas and characteristics of taiko drumming and combines them with the world of Western classical percussion. In development of these pieces Maki worked with many major Japanese percussionists including Keiko Abe, Sumire Yoshihara, Yasunori Yamaguchi, and Atsushi Sugahara.<sup>253</sup> Out of all of these works *Thirteen Drums* is his most well-known and is the most frequently played worldwide.

---

<sup>248</sup> Yi-Jan Liu, "Temporality and Rhythmic Structure in Thirteen Drums by Makir Ishii and Rebonds A by Iannis Xenakis" (DMA diss., University of North Texas, 2014), 9, <https://pdfs.semanticscholar.org/8396/215afde6391293adb52f9bf628c467356590.pdf>.

<sup>249</sup> Liu, "Temporality and Rhythmic Structure," 9.

<sup>250</sup> Liu, "Temporality and Rhythmic Structure," 9.

<sup>251</sup> Liu, "Temporality and Rhythmic Structure," 9.

<sup>252</sup> "Ishi Maki Composition list," All music, accessed December 14, 2019, <https://www.allmusic.com/artist/maki-ishii-mn0001637615/compositions>.

<sup>253</sup> All music, "Ishi Maki Composition list."

### 7.3.1.1 Atsushi Sugahara

Atsushi Sugahara (born 1947) commissioned what was to become *Thirteen Drums*.<sup>254</sup> Sugahara is a Japanese percussionist and throughout his career he commissioned many works. In addition to performing as a soloist he formed two percussion ensembles (Percussion Museum and Percussion Gallery) and held the role of principal timpanist of the Yomiuri Nippon Symphony for many years.

When Sugahara commissioned *Thirteen Drums*, he requested Maki to write him a “simple piece” that had characteristics that are similar to taiko drumming.<sup>255</sup> However, when Maki had finished the work it was anything but simple as Sugahara had requested, as there were many passages in this work that were impossible to play, and Maki was forced to recompose it many times to make the work playable.<sup>256</sup>

Writing this work for Sugahara was of great interest to Maki due to his previous work in percussion and expertise on taiko instruments, which allowed him the space to explore the potential of membranophones. Maki wrote for thirteen different drums as he based the compositional ideas on the chromatic scale, in an attempt to represent melody and harmony, musical aspects not generally explored in drum music.<sup>257</sup> Maki made the choice to write for membranophones as his understanding at the time is that multi-percussion solo required drums, cymbals, and gongs to create a world of colours and sounds, however he decided to fly in the face of this as he was trying to show the dynamic possibilities of drums.<sup>258</sup>

### 7.3.2 Michael Gordon’s *XY* (1997)

*XY* written by Michael Gordon in 1997 is a solo for five tuned drums and explores the sounds of the right and the left hand overlapping in dynamic and rhythmic complexity.<sup>259</sup> This work was commissioned by Evelyn Glennie in 1997 however, she generously let Schick premier the work after he asked to play it as part of an exploration on solo percussion works that had been written up to 1998.<sup>260</sup> This work can be seen as being both multi-drum as well as limited

---

<sup>254</sup> Liu, “Temporality and Rhythmic Structure,” 11.

<sup>255</sup> Liu, “Temporality and Rhythmic Structure,” 11.

<sup>256</sup> Liu, “Temporality and Rhythmic Structure,” 10.

<sup>257</sup> All music, “Ishi Maki Composition list.”

<sup>258</sup> Liu, “Temporality and Rhythmic Structure,” 10.

<sup>259</sup> “XY,” Michael Gordon, accessed January 3, 2020, <https://michaelgordonmusic.com/music/xy>.

<sup>260</sup> Schick, *The Percussionist’s Art*, 75.

instrumentation as there are only five drums that are used to explore complicated ideas of polyrhythmic structures.<sup>261</sup>

### *7.3.2.1 Dame Evelyn Glennie*

Dame Evelyn Glennie is the first person to create and sustain a full-time career as a solo percussionist.<sup>262</sup> Starting at the age of twelve she was hooked on percussion ,from the moment she first struck a snare drum.<sup>263</sup> From here her career expanded by performing with groups from “Bjork to Fred Frith” including a leading role at the 2012 London Olympics Games and working with the Gregory Dorna/The Royal Shakespeare Company.<sup>264</sup>

Unlike many of the percussionists who have been discussed throughout this paper she has successfully created a career that is made up almost entirely of performances with orchestras or part of an ensemble, there are some suggestions that she does over 100 concerts a year.<sup>265</sup> However earlier in her career, as many of the percussionists explored throughout this paper, she had to deal with people saying “you cannot be a solo percussionist”, as what would she play?<sup>266</sup> This lead her to commission over 200 works for solo percussion, many from leading composers.<sup>267</sup> A significant number of these works were for multi-percussion, with one of the most influential being *XY* by Micheal Gordon.

## **7.4 Influence of the second generation of multi-percussion works**

This chapter explored the influence that percussionists were having on the development of multi-percussion, as many of them were needing works that were easier to travel with, which was the predominant influence leading up until the end of the twentieth century. This started to put the compositional ideas and control of the art style into the hands of the percussionists. Which made the modern era of composition to be spearheaded by the percussionists themselves.

---

<sup>261</sup> Schick, *The Percussionist's Art*, 75.

<sup>262</sup> “Evelyn Glennie Biography 721 words,” Evelyn Glennie, accessed January 3, 2020, <https://www.evelyn.co.uk/biography/>.

<sup>263</sup> Evelyn Glennie, “Evelyn Glennie Biography 721 words.”

<sup>264</sup> “Evelyn Glennie Biography 721 words,” Evelyn Glennie, accessed January 3, 2020, <https://www.evelyn.co.uk/biography/>.

<sup>265</sup> Lauren Vogel Weiss, “Evelyn Glenni Hall of Fame,” Percussive Arts Society, accessed January 3, 2020, <https://www.pas.org/about/hall-of-fame/dame-evelyn-glennie>.

<sup>266</sup> Weiss, “Evelyn Glenni Hall of Fame.”

<sup>267</sup> Evelyn Glennie, “Evelyn Glennie Biography 721 words.”

There are many percussionists who have taken up the mantle of composer. Composers/Performers such as Casey Cangelosi<sup>268</sup> and Gene Koshinski<sup>269</sup> who are key examples of these new percussionist composers. When writing works in the field of multi-percussion they would create works that are reflections themselves. As more percussionists began writing works with each subsequent work becoming more diverse, as each composer had different interests or passages that they enjoyed playing. This creates an explosion of compositions that differ in size, instrumentation, and notation as the influence of previous generations has created an incredibly open art form.

---

<sup>268</sup> "Biography," Casey Cangelosi percussionist/composer, accessed January 4, 2020, <https://www.caseycangelosi.com/>.

<sup>269</sup> "About," Gene Koshinski, accessed January 3, 2020, <http://www.genekoshinski.com/about.php>.

## 8 Conclusion

The twentieth century belonged to percussion; the changes and development in the field of percussion rippled throughout all of the Western Art Music. Each subsequent change affected all composers who would follow, as music became more focused on textural and timbral change. Percussion has changed an enormous amount at the same time, as it has moved from being a part of the orchestra to being written in chamber, percussion ensemble and solo works.

In my view there is a popular misconception that the innovative multi-percussion part in *L'histoire du soldat* was the driving force in the development of multi-percussion in the twentieth century. I believe this not to be the case, for two reasons: firstly because *L'histoire* received only one public performance prior to 1923, and remained relatively unknown for several decades; and secondly because several more fundamental and impactful elements were at play. Elements which created a 'perfect storm' of conditions which led to a tectonic shift in composers' and performers' perception and use of percussion. In my view, the multi-percussion part in *L'histoire* is simply a manifestation of this broad-based change, rather than a key driver of it.

The fundamental drivers of change in the field of multi-percussion in the twentieth century can be seen as:

- The new roles of percussion in the orchestra.
- The development of multi-instrument percussion performance in the USA in the field of jazz music.
- Developments in percussion education and technique, which gave percussionists the skills necessary to work with multi-percussion setups, notation, mallet choice, and other issues.
- An exponential increase in the number and type of instruments available to Western percussionists and composers, and in particular, a growing awareness amongst Western composers and performers of percussion instruments, sounds, and aesthetics from other musical cultures.
- A broad-based view amongst twentieth century composers (particularly in the wake of the two world wars) that it was time to explore new musical ideas, concepts, and aesthetics.

- Percussion instruments and sounds opened the doors to a brave new world of musical possibilities, creating opportunities to explore the musical elements of rhythm and timbre, which resulted in the first Western works composed for percussion instruments alone.
- The appearance of fulltime professional multi-percussionists, whose enthusiasm for the genre and whose efforts to broaden its repertoire and build its public profile resulted in rapid developments in all aspects of the field of multi-percussion.
- The more recent emergence of several generations of percussionist composers; professional performers who have enthusiastically grasped the opportunity to create and compose new works for themselves and for others.

These influences combined to allow enough creative freedom for the composers throughout the century to be able write the major works in the field.

The changes in early twentieth century orchestral works changed how other composers saw the potential of percussion. Which allowed the role of percussion in orchestral music to reach new highs of expressive and sonic potential with the introduction of instruments such as wind machines, hammers, and castanets. This continued until composers were writing works that featured moments of only percussion instruments playing such as Tcherpnin and Shostakovich. Which points towards the creation of percussion ensemble music as these instruments were beginning to stand alone without any melodic or harmonic support.

The next major influence in the development of multi-percussion was jazz and the drum kit as it showed composers how successful using combinations of percussion instruments could be. These changes acted as a catalyst and directly influenced Stravinsky and Milhaud to write their chamber works that included a multi-percussion setup.

Jazz heavily influenced the first four chamber music works that were written that involve multi-percussion parts. The creation of these works would influence many composers to see the potential of percussion instruments to efficiently create significant timbre changes. The success of these works would lead to composers experimenting further with percussion music, until percussion ensemble works would begin to form.

John Cage experimented in the field of percussion writing many of these percussion ensemble works until his experimentation led to the creation of the first multi-percussion solo. This began the first generation of solo works with *27' 10.554"*, *Zyklus*, and *The King of*



*Denmark*. These works would make way for the rise of percussion education and soloists who would help shape the world of multi-percussion writing.

As the world of multi-percussion continued to develop so did the performers who would play these works. Which led to an enormous demand for more repertoire at an elite level, to satisfy a soloist's career. The works commissioned in the first generation of multi-percussion writing were not complicated or overly developed as these percussionists were merely looking for more works for them to add to their repertoire.

These commissions became more complicated and specific in the second generation of works as many of these players were dealing with similar issues of transporting gear for performances. As a reaction to this percussionists started commissioning works that can be easily transported or purchased at the venue. The tell-tale sign of the second generation was the percussionists having more control over the types of works that were being written for their craft.

Eventually this would lead to the most recent generation of percussionists who would become percussionist composers, professional performers who started writing works that would shape the medium of multi-percussion writing. These changes expanded the setting of percussion as it became a reflection of the percussionists and the kind of works they enjoyed performing.

All these influences have caused the world of multi-percussion to have a rich repertoire list to allow new percussionists to have a career in the field. Currently in 2020 the world of percussion is at a fantastic place as this style of writing is flourishing and many of the early composers and performers are still alive and willing to share their knowledge of living through the development of multi-percussion and their influence on it.

# Appendix 1

Composer	Work/Number of players T= Timpanists P= Percussionists	Instrument list
Nikolai Rimsky-Korsakov	<i>Capriccio Espagnol</i> (1887) T+5P	Orchestral bass drum, crash cymbals, suspended cymbal, castanets, triangle, tambourine, snare drum
Nikolai Rimsky-Korsakov	<i>Scheherazade</i> (1888) T+5P	Tam-tam, triangle, snare drum, clash cymbals, orchestral bass drum, tambourine
Nikolai Rimsky-Korsakov	<i>Russian Easter Festival Overture</i> (1888) T+5P	Tam-tam, glockenspiel, snare drum, orchestral bass drum, clash cymbals
Gustav Mahler	<i>Symphony No.1</i> (1888) 2T + 3P	Orchestral bass drum, clash cymbals, small orchestral bass drum with cymbals attached, triangle, tam tam
Gustav Mahler	<i>Symphony No.2</i> (1894) 2T+5P	Large tam tam, small tam tam, triangle, glockenspiel, 3 snare drums, 3 low bells (bass bells or bell plates), ruthe, orchestral bass drum, clash cymbals, suspended cymbal
Claude Debussy	<i>Afternoon of the Faun</i> (1894) 1P	Antique Cymbals
Gustav Mahler	<i>Symphony No.3</i> (1896) 2T+5P	3 pairs crash cymbals, 2 glockenspiel, triangle, tambourine, orchestral bass drum, small orchestral bass drum with cymbals attached, tubular bells + low Bb, ruthe, 3 snare drums off stage
Richard Strauss	<i>Don Quixote</i> (1896-7) T+3P	Wind machine, snare drum, glockenspiel, triangle, tambourine, orchestral bass drum, clash cymbals
Gustav Mahler	<i>Symphony No.4</i> (1900) T+4P	Orchestral bass drum, crash cymbals, triangle, sleighbells, glockenspiel, tam tam
Arnold Schoenberg	<i>Pelleas und Mélisande</i> (1902) 2T+4P	Tam-tam, crash cymbals, suspended cymbal, orchestral bass drum, glockenspiel, tenor drum, triangle

Claude Debussy	<i>La Mer</i> T+3P	Tam-tam, glockenspiel, orchestral bass drum, crash cymbals, suspended cymbal, triangle
Gustav Mahler	<i>Symphony No.6</i> (1904) 2T+4P	Orchestral bass drum, crash cymbals, triangle, tam tam, snare drum, 3 deep bells, xylophone, glockenspiel, suspended cymbal, ruthe, hammer effect, tuned cowbells
Claude Debussy	<i>Images</i> (1905) 1T+5P	Tubular bells, crash cymbals, suspended cymbal, tenor drum, triangle, tambourine, snare drum, castanets, xylophone, orchestral bass drum
Gustav Mahler	<i>Symphony No.7</i> (1905) T+5P	Snare drum, tambourine, triangle, tam tam, glockenspiel, keyed glockenspiel, orchestral bass drum, clash cymbals, suspended cymbal, ruthe, 3 deep bells, assorted tuned cowbells with clappers
Igor Stravinsky	<i>Firebird</i> (1910) T+5P	Crash cymbals, orchestral bass drum, xylophone, glockenspiel, tam-tam, triangle, suspended cymbal, tambourine, 2 offstage bells,
Igor Stravinsky	<i>Petrushka</i> (1911) T+6P	Xylophone, glockenspiel, tam-tam, tambourine, triangle, orchestral bass drum, small orchestral bass drum with crash cymbals attached, suspended cymbal, crash cymbals, snare drum
Richard Strauss	<i>Eine Alpensinfonie</i> (1911-15) 2T+4P	Thunder sheet, triangle, clash cymbals, orchestral bass drum, snare drum, suspended cymbal, assorted tuned cowbells with clappers, wind machine
Igor Stravinsky	<i>Rite of Spring</i> (1913) 2T+5P	Chains, 2 orchestral bass drums, 2 crash cymbals, tam tam, tambourine, triangle, 2 crotales, 2 washboards
Igor Stravinsky	<i>Les Noces</i> (1914-17) T+6P	Triangle, xylophone, 2 crotales, orchestral bass drum with crash cymbals attached, crash cymbals, 2 snare drums, 2 piccolo snare drums, orchestral bass drum, suspended cymbal, tambourine
Eric Satie	<i>Parade</i> (1913-1917) T+4P	2 octaves bottle phone (D to D in Bb major), orchestral bass drum, ship's siren, tambourine, starting pistol, snare drum, clash cymbals, suspended cymbal, ratchet, tenor drum, wood block, typewriter, xylophone, tam-tam, triangle, siren

# Bibliography

- Abe, Keiko. "Japanese Percussion and Marimba Music." *Percussive Notes* 22, no. 3 (April 1984): 51-60. <http://publications.pas.org/archive/8404/articles/84.04.51-60.pdf#search=%22norio%22>.
- All music. "Ishi Maki Composition list." Accessed December 14, 2019. <https://www.allmusic.com/artist/maki-ishii-mn0001637615/compositions>.
- Antokoletz, Elliot. *A History of Twentieth-Century Music in a Theoretic-Analytical Context*. New York: Routledge, 2014.
- Bard Faculty News. "Biography." Accessed December 19, 2019. <http://www.bard.edu/faculty/details/?id=2897>.
- Bartók, Béla. . *Béla Bartók Essays*, edited by Benjamin Suchoff. Nebraska: University of Nebraska Press, 1992.
- Bartok, Bela. *Sonata for 2 Pianos and Percussion*. London: Hawkes & Son, 1942.
- Beck, John. *Encyclopedia of Percussion*. New York: Garland Publishing, Inc, 1995.
- Bedford, Joshua Lee. "Alexander Tcherepnin's Symphony No.1: Validating the Work Within the Canon of Symphonic Composition." Master's Thesis, Indiana State University, 2011. <https://pdfs.semanticscholar.org/d5f8/c419420e7c53cb5a8826c3315efc7b26bc27.pdf>.
- Blades, James. *Percussion Instruments and their History*. Wesport: The Bold Strummer, Ltd., 2005.
- Blum, Eberhard. "Notes on Morton Feldman's "The King of Denmark" by Eberhard Blum." translated by Peter Soderberg. Chris Villars. Accessed December 4, 2019. [https://www.cnvill.net/mfblumking\\_eng.pdf](https://www.cnvill.net/mfblumking_eng.pdf).
- Boosey & Hawkes. "Aaron Copland Music for the Theatre." Access December 1, 2019. <https://www.boosey.com/cr/music/Aaron-Copland-Music-for-the-Theatre/6728>.
- Boosey & Hawkes. "Dmitri Shostakovich The Nose." Accessed December 14, 2019. <https://www.boosey.com/cr/music/Dmitri-Shostakovich-The-Nose/15661>.
- Boulez, Pierre. "Schoenberg Is Dead." In *Stock takings of an apprenticeship*. edited by Paule Thevenin. translated by Steven Walsh. New York: Oxford University Press, 1991.
- Broyles, Micheal. *Mavericks and Other Traditions in American Music*. New Haven & London: Yale University Press, 2004.
- Bugg, D. Doran, "The role of Turkish percussion in the history and development of the orchestral percussion section." DMA Major Paper, Louisiana State University, 2003. [https://digitalcommons.lsu.edu/gradschool\\_majorpapers/27](https://digitalcommons.lsu.edu/gradschool_majorpapers/27).
- Cage, John. "27' 10.554" for a percussionist." Accessed November 24, 2019. [https://johncage.org/pp/John-Cage-Work-Detail.cfm?work\\_ID=14](https://johncage.org/pp/John-Cage-Work-Detail.cfm?work_ID=14).

- Cage, John. *Third Constuction*, for 4 percussion players. New York: Henmar Press, 1960.
- Casey Cangelossi percussionist/composer. "Biography." Accessed January 4, 2020. <https://www.caseycangelosi.com/>.
- Cdmc. "Jean-Pierre Drouet Biography." Accessed December 4, 2019. <http://www.cdmc.asso.fr/en/ressources/compositeurs/biographies/drouet-jean-pierre-1935>.
- Charles, Benjamin Andrew. "Multi-Percussion in Undergraduate Percussion Curriculum." Doctoral Essay, University of Miami, 2014. [https://scholarlyrepository.miami.edu/cgi/viewcontent.cgi?article=2342&context=oa\\_dissertations](https://scholarlyrepository.miami.edu/cgi/viewcontent.cgi?article=2342&context=oa_dissertations)
- Chris Villars. "Morton Feldman." Accessed November 26, 2019. <https://www.cnvill.net/mfbio.htm>.
- Cline, David. *The Graph Music of Morton Feldman*. United Kingdom: Cambridge University Press, 2016.
- Dare Conferences. "Jean-Charles François." Accessed September 20, 2020. [https://dareconferences.org/dare\\_author/jean-charles-francois/](https://dareconferences.org/dare_author/jean-charles-francois/).
- Devenish, Louise. *Global Percussion Innovations: The Australian Perspective*. United Kingdom: Routledge, 2018.
- Distler, Jed. "The First Recordings of Edgard Varèse and Charles Ives." Classical Net. Accessed November 8, 2019. <http://www.classical.net/music/recs/reviews/distler/slonimsky.php>.
- Driscoll, Matthew Thomas. "New Orleans brass band traditions and popular music: elements of style in the music of mama digdown 's brass band and youngblood brass band." Doctor of Musical Arts, University of Iowa, 2012. <https://ir.uiowa.edu/cgi/viewcontent.cgi?article=3288&context=etd>.
- Early, David. "Percussion Performance Issues in Stravinsky's *Histoire du Soldat*." *Percussive Notes* 31, no. 5 (June 1993): 69-75 <http://publications.pas.org/archive/pnv31n5/articles/pnv31n5.69-75.pdf#search=%22histor%20du%20soldat%22>.
- Epstein, Frank. *Cymbalism*. Milwaukee: Hal Leonard, 2007.
- "Evelyn Glennie Biography 721 words." Evelyn Glennie. Accessed January 3, 2020. <https://www.evelyn.co.uk/biography/>.
- Fairchild, Frederick D. "Paul Price Hall of Fame." Percussive Arts Society. Accessed November 20, 2019. <https://www.pas.org/about/hall-of-fame/paul-price>.
- Feldman, Morton. *King of Denmark*. New York: Peters Edition, 1965.
- Ferneyhough, Brian. "Bone Alphabet Programme Note." Steve Weiss Music. Accessed November 3, 2019. <https://www.steveweissmusic.com/product/bone-alphabet-ferneyhough/multi-percussion-solo>.

- Ficher, Miguel, Martha Furman Schleifer and John M. Furman. *Latin American Classical Composers: A Biographical Dictionary*. Lanham: Scarecrow Press, 2002.
- Fukushi, Norio. *Ground*. Tokyo: Ongaku No Tomo Sha Corp, 1970.
- Gene Koshinski. "About." Accessed January 3, 2020. <http://www.genekoshinski.com/about.php>.
- Gerber, Stuart W. "Karlheinz Stockhausen's Solo Percussion Music: A Comprehensive Study." DMA thesis, 2003. [https://etd.ohiolink.edu/pg\\_10?::NO:10:P10\\_ETD\\_SUBID:79364#abstract-files](https://etd.ohiolink.edu/pg_10?::NO:10:P10_ETD_SUBID:79364#abstract-files).
- Girsberger, Russ. "Darius Milhaud's "La Cration du Monde": The Problems with the Parts." *Percussive Notes* 38, no. 3 (June 2000): 55-59.  
<http://publications.pas.org/archive/Jun00/articles/00.06.55-59.pdf#search=%22creation%20du%20monde%22>. Globokar, Vinko. *Toucher*. New York: Edition Peters, 1973.
- Gordon, Michael. "XY." Accessed January 3, 2020. <https://michaelgordonmusic.com/music/xy>.
- Griffith, Paul. *Modern Music and After*. New York: Oxford University Press, 2011.
- Hall, John Richard. "Development of the Percussion Ensemble Through the Contributions of the Latin American Composers Amadeo Roldan, Jose Ardevol, Carlos Chavez and Alberto Ginastera." DMA Document, Ohio State University, 2008.  
[https://etd.ohiolink.edu/!etd.send\\_file?accession=osu1211553990&disposition=inline](https://etd.ohiolink.edu/!etd.send_file?accession=osu1211553990&disposition=inline).
- Harley, James. *Xenakis: His Life in Music*. Nebraska: Psychology Press, 2004.
- Hartenberger, Russell, ed. *The Cambridge Companion to Percussion*. United Kingdom: Cambridge University Press, 2016.
- Hellenica world. "Iannis Xenakis." Accessed January 1, 2020.  
<http://hellenicaworld.com/Greece////Person/en/IannisXenakis.html>.
- Heyman, Barbara B. "Stravinsky and Ragtime." *The Musical Quarterly* 68, no. 4 (October 1982): 543-562. [www.jstor.org/stable/742157](http://www.jstor.org/stable/742157).
- Howe, Warren. "The Percussionist's Guide to Darius Milhaud's La Creation du Monde." *Percussionist* 17, no. 1 (Fall 1979): 37-48.  
<http://publications.pas.org/archive/resfal79/articles/resfal79.37-48.pdf#search=%22creation%20du%20monde%22>.
- Iddon, Martin. *New Music at Darmstadt*. United Kingdom: Cambridge University Press, 2013.
- Karlheinz Stockhausen. "Instrumentation works for Orchestra Gruppen." Accessed January 17, 2020. [http://www.karlheinzstockhausen.org/gruppen\\_english.htm](http://www.karlheinzstockhausen.org/gruppen_english.htm).
- Korabelnikova, Ludmila. *Alexander Tcherepnin: The Saga of a Russian Emigré Composer*, translated by Anna Winestein, edited by Sue Ellen Hershman-Tcherepnin. Bloomington and Indianapolis: Indiana University Press, 2008.
- Kostelanetz, Richard. *Conversing with Cage*. United Kingdom: Psychology Press, 2003.
- Kozinn, Allan. "Percussionists Go From Background to Podium." *The New York Times*. December 27, 2009. <https://www.nytimes.com/2009/12/28/arts/music/28percussion.html>.

- Lewis, Kevin and Gustavo Aguilar, eds. *The Modern Percussion Revolution: Journeys of the Progressive Artist*. New York: Routledge, 2014.
- Lloyd-Jones, Rebecca. "A Space for Women as Women Exploring a Gendered Feminine Percussion Practice through the work of Lucia Dlugoszewski." Paper presented at Transplanted Roots Research Symposium 2019, Universidad de Guanajuato, 12-14 September 2019.  
<https://rebeccalloydjones.files.wordpress.com/2020/03/a-space-for-women-as-women-exploring-a-gendered-feminine-percussion-practice-through-the-work-of-lucia-dlugoszewski.pdf>
- Library of Congress. "Timeline of Ballet Russes." Accessed December 18, 2019.  
<https://www.loc.gov/collections/ballets-russes-de-serge-diaghilev/articles-and-essays/timeline-of-ballets-russes/>.
- Liu, Yi-Jan. "Temporality and Rhythmic Structure in Thirteen Drums by Makir Ishii and Rebonds A by Iannis Xenakis." DMA diss., University of North Texas, 2014.  
<https://pdfs.semanticscholar.org/8396/215afde6391293adb52f9bf628c467356590.pdf>.
- MicroFest Record. "10000 things notes." Accessed September 21, 2020,  
<https://microfestrecords.com/10000-things-notes/>. Milhaud, Darius. *My Happy Life*. Translated by Donald Evans, George Hall, and Christopher Palmer. London, New York: Marion Boyars, 1987, 1995
- Milhaud, Darius. *Notes Without Music*. Edited by Rollo H. Myers. Translated by Donald Evans. London: Dennis Dobson Ltd., 1952.
- Minnick, Jonathan. "Richard Strauss's Eine Alpensinfonie: An Analysis of Origins, Topics, and Symphonic Characteristics." Honour's Thesis, University of North Carolina, 2016.  
[https://cdr.lib.unc.edu/concern/honors\\_theses/8623j276t](https://cdr.lib.unc.edu/concern/honors_theses/8623j276t).
- Monoskop. "Max Neuhaus." Accessed November 14, 2019. [https://monoskop.org/Max\\_Neuhaus](https://monoskop.org/Max_Neuhaus).
- Morgan, Stuart. "Max Neuhaus." Frieze 25. November – December, 1995.  
<https://frieze.com/article/max-neuhaus>.
- Mortensen, Gert. "I Ching Kalimba." Kalimba Magic. Accessed November 2, 2019.  
<https://www.kalimbamagic.com/newsletters/newsletter10.01/iching.shtml>.
- Murph, Megan. "Max Neuhaus and the Musical Avant-Garde." Master's Thesis, Louisiana State University, 2013.  
<https://pdfs.semanticscholar.org/2f29/382f35d1abf402bac238f1ca8ac96715ab7a.pdf>.
- Music From Japan. "Norio Fukushi." Accessed November 4, 2019.  
<http://www.musicfromjapan.org/cgi-bin/new/composer.py/composer/62>.
- Musical Sales Classical. "Per Norgard Biography." Accessed November 2, 2019.  
<http://www.musicalsalesclassical.com/composer/short-bio/Per-N%C3%B8rg%C3%A5rd>.
- Neuhaus, Max. "Morton Feldman, The King of Denmark (Realization date, 1964)." Chris Villars. Accessed September 19, 2019. <https://www.cnvill.net/mfneuhaus.htm>.

- Nexus Percussion, "1933 Premiere and First Recording of Varese's Ionisation." Accessed January 26, 2020. <http://www.nexuspercussion.com/2010/02/1933-world-premiere-of-vareses-ionisation/>.
- Nicholls, David and Jonathan Cross, eds. *John Cage the Cambridge companion*. United Kingdom: Cambridge University Press, 2002.
- Nicholls, Geoff. *The Drum Book: A History of the Rock Drum Kit*, 2nd ed. New York: Backbeat Book, 2008.
- Norgard, Per. I Ching. Copenhagen: Edition Wilhelm Hansen, 1982.
- O'Loughlin, Naill. "Interconnection Musicologies Decoding Mahler sixth Symphony." *Musicological Annual* 39, no. 1 (January 2003): 31-49. <https://doi.org/10.4312/mz.39.1.31-49>.
- Ouellette, Fernand. *Edgard Varèse*, Translated by Derek Coltman. New York: Da Capo Press, 1981.
- Paczynski, Georges. *Une Histoire de la Batterie de Jazz*, 3 vols., vol. 1. Paris: Outre Mesure, 1999.
- Payson, Al. "Multiple Percussion at the School Level By Al Payson." *Percussive Notes* 11, no. 3 (1973): 16-17. 1973. Accessed April 24, 2017. <http://publications.pas.org/Archive/pnv11n3/articles/pnv11n3.16-17.pdf>.
- Perc Tek. "Concerto for Percussion and Small Orchestra." Accessed December 18, 2019. [http://www.percetek.com/index.php?title=Concerto\\_for\\_Percussion\\_and\\_Small\\_Orchestra](http://www.percetek.com/index.php?title=Concerto_for_Percussion_and_Small_Orchestra).
- Percussive Arts Society. "Focus day 2010 Ecology of Percussion Concert Program." Accessed December 4, 2019, <https://www.pas.org/docs/default-source/web-extras-audio-files/2010FocusDay.pdf?sfvrsn=0&sfvrsn=0>.
- Pollack, Aaron. *Copland: The Life and Work of An Uncommon Man*. Urbana: University of Illinois Press, 1999.
- Reich, Willi. *Alexander Tcherepnin*. Bonn: M.P. Belaieff, 1970.
- Reimer, Benjamin N. "Defining the Role of Drumset Performance in Contemporary Music." PhD diss., McGill University, 2013. [https://www.pas.org/docs/default-source/thesisdissertations/Reimer\\_-\\_Defining\\_the\\_Role\\_of\\_Drumset\\_Performance\\_in\\_Contemporary\\_Music.pdf](https://www.pas.org/docs/default-source/thesisdissertations/Reimer_-_Defining_the_Role_of_Drumset_Performance_in_Contemporary_Music.pdf).
- Revill, David. "John Cage Hall of Fame." Percussive Arts Society. Accessed December 13, 2019. <https://www.pas.org/about/hall-of-fame/john-cage>.
- Revill, David. *The Roaring Silence: John Cage, a Life*. New York: Arcade Publishing, 1992.
- Richardson, Brett Andrew. "Aaron Copland's Music for the Theatre: A Transcription for Wind Band." PhD Diss., Indiana University, 2014. <https://scholarworks.iu.edu/dspace/bitstream/handle/2022/18474/Richardson%2C%20Brett%20%28DM%20Wind%20Cond%29.pdf?sequence=1&isAllowed=y>.
- Rimsky-Korsakov, Nikolai. *Capriccio espagnol*. Leipzig: M.P. Belaieff, 1888.



- Rimsky-Korsakov, Nikolai. Mvt. IV, "Scena e canto gitano," Capriccio espagnol. Leipzig: M.P. Belaieff, 1888.
- Roeder, Micheal Thomas. *A History of the Concerto*. United Kingdom: Amadeus Press, 1994.
- Roldan, Amadeo. Ritmica No.5. New York & Hamburg: Peer Music, 1967.
- Roldan, Amadeo. Ritmica No.6. New York & Hamburg: Peer Music, 1967.
- Rosen, Micheal. "Jan Williams: Pioneer and Visionary." *Percussive Notes* 56, No. 5 (November 2018): 68-70. <http://publications.pas.org/archive/November2018/1811.68-71.pdf#search=%22jan%20williams%22>.
- Rzewski, Frederic. *Lost and Found*. Brussels: Sound Pool Music, 1985.
- Saunders, Stuart. "Having Words with John Cage Interview." *Percussive Notes* 30, no. 3 (1992): 48-52. <http://publications.pas.org/Archive/pnv30n3/articles/pnv30n3.48-53.pdf>.
- Scheffer, Frank, dir. *The One All Alone*. 2009; Netherlands: Kasander Film Company 2009 DVD.
- Schick, Steven. "The King of Denmark performance note." Chris Villars. Accessed November 26, 2019, <https://www.cnvill.net/mfschick.htm>.
- Schick, Steven. *The Percussionist's Art: Same Bed Different Dream*. New York: University of Rochester Press, 2006.
- Scott, Ryan C. W. "The Art of Marimba in Tokyo: Emergence in the Twentieth Century." DMA thesis, University of Toronto, 2015. <https://tspace.library.utoronto.ca/handle/1807/71624>.
- Shostakovich, Dimitri. "Interlude No. 4" *Die Nase*. Austria,:Universal Edition, 1930.
- Simons, Haley A. "Béla Bartok's Sonata for Two Pianos and Percussion." Phd diss., University of Alberta. <http://www.collectionscanada.gc.ca/obj/s4/f2/dsk2/ftp02/NQ59918.pdf>.
- Smith, Steve. "Banging Out a Revolution in 91 Mearsures." *The New York Times*. July 16, 2010. <https://www.nytimes.com/2010/07/18/arts/music/18varese.html>.
- Snider, Colby. "Suggested Audition Repertoire." The University of Tennessee at Martin. Accessed December 4, 2018. [https://www.utm.edu/departments/percussion/audition\\_repertoire.php](https://www.utm.edu/departments/percussion/audition_repertoire.php).
- Solomon, Samuel. "John Cage – 27'10.554" for a percussionist (1956)." Samuel z. Solomon. Access November 20, 2019. <http://szsolomon.com/john-cage-27-10-554-percussionist-1956/>.
- Solomon, Samuel. "Iannis Xenakis, Psappha (1975)." for a percussionist (1956)." Samuel z. Solomon. Access November 20, 2019. <http://szsolomon.com/iannis-xenakis-psappha-1975/>.
- Stockhausen, Karlheinz. No. 9: Zyklus. London: Universal Edition, 1961.
- Stravinsky, Igor. *Histoire du Soldat*. London: J. & W. Chester, Ltd, 1918.
- Stravinsky, Igor & Robert Craft. *Dialogues and a Diary*. United Kingdom: Faber & Faber, 1963.
- The academy for creation. "Sylvio Gualda." Accessed September 20, 2019. [https://acanthes.ircam.fr/centre\\_2009/bio\\_2009/gualda\\_gb.htm](https://acanthes.ircam.fr/centre_2009/bio_2009/gualda_gb.htm).

- The Biography. "Biography of Michel Descombey." Accessed January 11, 2020. <https://thebiography.us/en/descombey-michel>.
- Thompson, Howard. "New Music Given by Pan-Americans." *The New York Times*, April 16, 1934, <https://www.nytimes.com/1934/04/16/archives/new-music-given-by-panamericans-compositions-by-varese-ives-and.html>.
- Udow, Michael. "An Interview With Karlheinz Stockhausen." *Percussive Notes Research Edition* 23, no. 4 (September 1985): 4-47. <http://publications.pas.org/archive/ressept85/articles/ressept85.04-47.pdf#search=%22zyklus%20how%20and%20why%22>.
- Universal Edition. "Darius Milhaud: Konzert for percussion and small orchestra." Accessed December 6, 2019 <https://www.universaledition.com/darius-milhaud-480/works/konzert-3188>.
- Vanlandingham, Larry Dean. "The Percussion Ensemble: 1930-1945." PhD diss., Florida State University, 1971.
- Varese, Edgard. *Ionisation*. New York: Edgar Varese, 1934.
- Vivier, Odile. *Varèse*. Paris: Editions du seuil, 1973.
- Weiss, Lauren Vogel. "Evelyn Glenni Hall of Fame." *Percussive Arts Society*. Accessed January 3, 2020. <https://www.pas.org/about/hall-of-fame/dame-evelyn-glennie>.
- Weiss, Lauren Vogel. "Steven Schick Hall of Fame." *Percussive Arts Society*. Accessed December 13, 2019. <https://www.pas.org/about/hall-of-fame/steven-schick>.
- White, Eric Walter. *Stravinsky: The Composer and his Works*. Berkeley, Los Angeles: University of California Press, 1966.
- Whiting, Bonnie. "The Speaking Percussionist as Story teller." *The Modern Percussion Revolution: Journeys of the Progressive Artist*, edited by Kevin Lewis and Gustavo Aguilar, 84-112. New York: Routledge, 2014.
- Williams, Jan. "An interview with Morton Feldman, Jan Williams." Chris Villars. Accessed December 3, 2019. <https://www.cnvill.net/mfjw1.htm>.
- Xenakis, Iannis. *Psappha*. Paris: Editions Salabert, 1976.
- Xenakis, Iannis. *Rebonds*. Paris: Editions Salabert, 1991.