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An Analysis of Western Art Music Arrangements for Steel Pan Chamber Ensemble

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AN ANALYSIS OF WESTERN ART MUSIC ARRANGEMENTS
FOR STEEL PAN CHAMBER ENSEMBLE

by

Ian Joseph Meiman

A Dissertation.
Submitted to the Graduate School,
the College of Arts and Sciences,
and the School of Music
at The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Musical Arts.

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ABSTRACT

This dissertation is an analysis of western art music arrangements for steel pan chamber ensembles. Specifically, this dissertation will analyze how certain arrangers have adapted western art music for steel pan chamber ensemble while discussing the possible methods the arranger used to create this adaptation. The analysis will observe the melodic, harmonic, rhythmic, and other significant alterations made in the steel pan chamber arrangement, and discuss any changes made, whether due to the adaptation of the instruments or otherwise, from the original works. The dissertation will also include a brief historical discussion on western art music's influence of early steel pan development as well as an explanation of the design and properties of the modern steel pan orchestra. The dissertation concludes with a discussion on the importance of steel pan chamber music to the future prosperity of steel pan repertoire.

The dissertation was written for the purpose of helping future arrangers of steel pan chamber music to not only learn how various western art music is adapted to the ensemble but to help build an understanding of the importance of having such music available to pannists.

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Many thanks to the members of the Percussive Arts Society and the National Society of Steel Band Educators in their help with research for this dissertation. I hope that this paper will help contribute to the music that we all love.

Finally, thank you to the teachers of my past: Monica Oldaker-Crowder, Dr. Kip Crowder, John Porter, Dr. Jason Koontz, Vern Griffiths, Aaron McDonald, and Tony Miceli. You have been my guides through my musical education and have helped me become the musician and teacher I am today, for that I am forever grateful.

DEDICATION

This dissertation is dedicated to the friends and family that have supported me throughout my life. To my brother Tristan Meiman who has been the best brother I could ever wish to have. And To my parents Joe and Beth Meiman, who without your love and support I could not have made it out the front door, let alone write this dissertation. I will always love you!

And to my fellow percussionists, steel pannists, composers, arrangers, and teachers.... Shine On You Crazy Diamond!

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LIST OF ABBREVIATIONS

<i>m.</i>	Measure
<i>mm.</i>	Measures
<i>TASPO</i>	Trinidad All Steel Percussion Orchestra

INTRODUCTION

It's amazing how innovation can facilitate the joy of making music. The steel pans, a collection of percussion instruments created only seventy years ago, have attained prominence within Caribbean music and has established itself in the curriculum of music educators across North America. An oil drum, used to contain and transport fuel, has been reshaped into a musical instrument that defines a nation and enriches the world. Similar to its history, steel pan performers continue to explore new ways to create music.

Steel pan music has been immersed into various genres of music such as latin, jazz, pop, calypso, etc. However, since the early days of steel pan, the adaptation of western art music (or as called in Trinidad "the classics") has been an integral part of the instrument's evolution. Today, classical music can be found in performances and published material throughout steel pan repertoire. In the case of with published material, however most pan literature, including classical arrangements, are limited to either large ensemble or solo works. This limits the available material steel pan performers, also known as "pannists", to perform in settings outside the typical large steel ensemble. There is however a small collection of chamber music that is emerging from the steel pan literature collection, some works originally composed for the instruments while others have been adapted from previously written material such as the classics.

This dissertation will analyze how certain arrangers have adapted western art music for steel pan chamber ensemble while discussing the possible methods the arranger used to create this adaptation. The analysis will observe the melodic, harmonic, rhythmic, and other significant alterations made in the steel pan chamber arrangement, and discuss any changes made, whether due to the adaptation of the instruments or otherwise, from the original works. The analysis will be completed by comparing the arrangements to that of the original works in order to consider the probable options of future arranging for steel pan chamber ensembles. The works that will be evaluated are as follows:

Sarabande and Double from *Violin Partita no. 1 in B minor BWV 1002* for Solo Violin
by Johann Sebastian Bach - Arranged for Steel Pan Trio by Adam Grisé

Prelude No. 4 in E minor from 24 Preludes Op. 28 for Solo Piano by Frédéric Chopin -
Arranged for Steel Pan Quartet by Chris Tanner

First Arabesque from *Deux arabesques L. 66* for Solo Piano by Claude Debussy -
Arranged for Steel Pan Duet by Jason Schreiber

Serenade No. 13 in G Major (Eine kleine Nachtmusik): Allegro K. 525 for Strings by
Wolfgang Amadeus Mozart - Arranged for Steel Pan Quartet by Ian Joseph Meiman

Prior to the analysis, this dissertation will give a brief overview of Western Art Music's influence in early steel pan development in Trinidad and Tobago. This will be followed with a chapter exploring the instruments making the modern steel orchestra whose voices create the previously introduced arrangements. Though the subject of this dissertation is primarily an analysis of steel pan chamber music, it is important for the reader to understand how the early pan builders and performers used western art music as a bridge to gain acceptance from the general public and of creating the modern steel pan orchestra.

Steel pannist Mia Gormany stated emphatically that "Steel bands should have a wide variety of styles and repertoire, I've heard steel bands play with the same calypsos over and over again, and it's not doing anything for the steel pan."¹ With the expansion of steel pan chamber music a pan musician can expand their performance opportunities by composing and arranging their own works. The dissertation is written for the purpose of helping future arrangers of steel pan chamber music to not only learn how various western art music is adapted to the ensemble but to help build an understanding of the importance of having such music available to pannists. The instruments, and their music must expand beyond the typical settings in order to prosper throughout the world and inspire the performers, composers, and teachers of the future generations.

¹ Janine Tiffe, "Interview with Steelpannist Mia Gormandy," *Percussive Notes* 53, no. 5 (November 2015): 45, April 13, 2017 <http://www.pas.org/resources/research/archive-of-publications>.

CHAPTER I – WESTERN ART MUSIC’S INFLUENCE ON EARLY STEEL PAN DEVELOPMENT

Like every modern instrument performers use today, each tool of music has a journey from their beginnings to their current form. Though the modern steel pan orchestra today has become a plethora of diverse instrument and repertoire, it’s origins in the mid-20th c. was brought on through trial and error, conflict, and innovation. With the influence of western art music, early pannists and pan builders were not only able to create the instruments we use today but to bring the instruments to music lovers throughout the world.

By the end of World War II, steel pan had evolved from a collection of percussive scrap metal to an instrument with a potential for musical capability. At the time of the Japanese surrender in August 1945, the steel band had taken over as Trinidad’s new orchestra and musical ensemble for celebration as tamboo-bamboo (bamboo percussion instruments) had lost its reigning status as the preferred instrument.² Though the steel pan was gaining popularity, the ruling classes of Trinidad and Tobago, at the time a colony of the British Empire, had reservations for the instruments and the people who played them. Complaints about the rise of popularity of steel pans were made from the government and police force to the media declaring in the *Trinidad Guardian* that “Steel band fanaticism is a savage and bestial cult and it must be completely wiped out.”³ Such animosity to steel pan music by the ruling class led to more action to suppress the pannists and pan builders. Censorship of calypso music also was passed by the colonial legislature with

² Angela Smith, *Steel Drums and Steelbands: A History* (Lanham, MD: Rowman & Littlefield, 2012), 49.

³ Smith, 50.

police making arrests of steel pannists and confiscating their instruments. It is generally accepted that the police conflict was related to the lack of acceptance [of steel band] by the government, ruling classes, and police as a legitimate musical instrument.⁴ In order for the steel pan to bridge the divide between the classes, musicians needed showcase the sophisticated capability of the pan, one of the most effective solutions to this conflict was the adaptation of western art music.

In terms of western art music adaptations to pan, one of the first known performances came in 1946 when Winston “Spree” Simon (Figure 1) performed Franz Schubert’s “Ave Maria” on his 14-note ping-pong,⁵ a forerunner of the modern lead (or tenor) pan. Simon also included a rendition of the hymn “I am a Warrior,” Calypsonian Lord Kitchner’s “Tie Tongue Mopsy,” and “God Save the King.”⁶ The repertoire itself was not the only significant factor of Simon’s impact to the history of pan, as the audience were dignitaries and members of the ruling classes attending a function at the Government House of Trinidad. The performance was a success. The fact that the Governor and other members of the British ruling class attended indicated that it (the steel pan) now possessed repeatability and that the concert showed that pan could play any kind of music, including classical.⁷

⁴ William R. Aho, “Steel Band Music in Trinidad and Tobago: The Creation of a People’s Music,” *Latin American Music Review/Revista Música Latinoamericana* 8, no. 1 (Spring 1987): 37, accessed November 1, 2018, doi:10.2307/948067.

⁵ Smith, 54-55.

⁶ Ernest D. Brown, “Carnival, Calypso, and Steelband in Trinidad,” *The Black Perspective in Music* 18, no. 1/2 (1990): 94, accessed November 1, 2018, doi:10.2307/1214859.

⁷ Brown, 94.

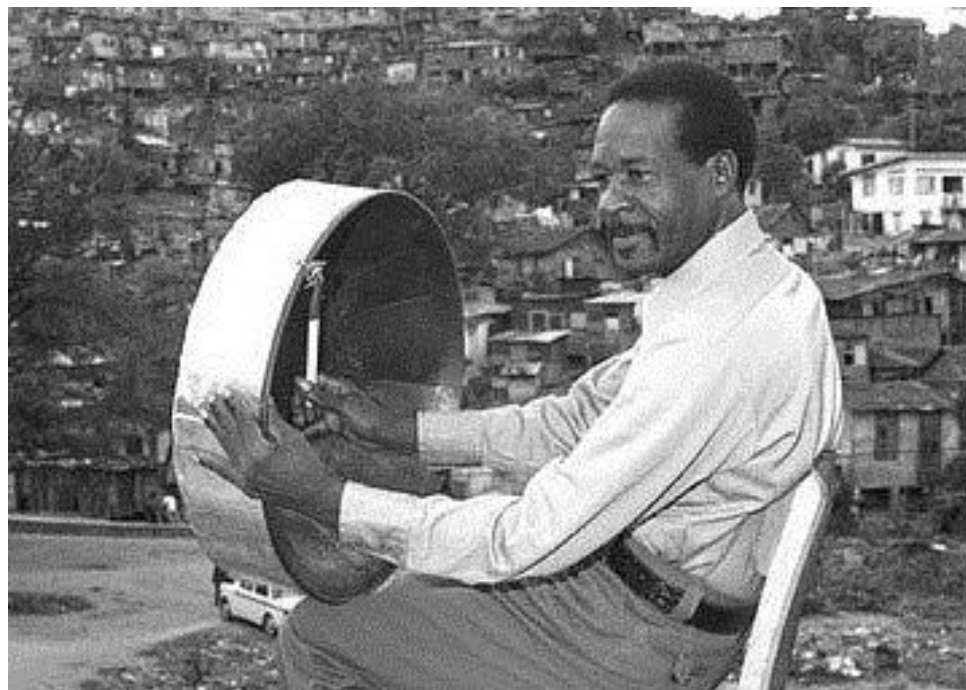


Figure 1. Winston “Spree” Simon.

Winston “Spree” Simon’s performance at the Government House is widely regarded as the first public performance of classical music on pan. However, even with the success of Simon’s performance, not all of the ruling classes and general public were embracing pan music. Musician, conductor, and arranger Pat Bishop points out that at first the playing of classical music, religious music, hymns, or Christmas music was met with revulsion by the upper classes; that such lofty music would be attempted with the crude instruments and felt that the steel drum unworthy of the effort.⁸ But the persistence of the pan players to make music with their instruments would exceed the reservations held by the ruling classes.

⁸ Aho, 50.

During the time of Simon's performance at the Government House, pan makers and steel bands were seeking other ways to make their instruments more favorable to the general public. New instrument names helped express the pan developer's aspirations to be taken seriously: the 'ping pong' became the tenor; the deep-pitched 'boom' became the bass; and pans like the 'bélé' and the 'grumbler' were replaced with guitars and cellos.⁹ Simon's performance also helped push the initiative to create bigger and better pans. Competition between bands led to a rapidly increasing number of notes on the ping pongs, leading to diatonic scales, then fully chromatic ping pongs by 1950.¹⁰ But all things considered, the growth of social favorability for steel pan music came from the performances. In early 1946, Ellie Mannette, who today is remembered as the "Father of the Modern Steel Drum Band," began building a lead (tenor) pan out of a 55-gallon oil drum. However, this wasn't the first pan he created from an oil drum. In the mid-1940s, Ellie Mannette (Figure 2) created a highly sophisticated pan out of a 35-gallon oil drum, which he considered so beautiful he called it the Barracuda.¹¹ The Barracuda was later stolen by members of a rival band and instead of risking injury trying to recover the pan, Mannette decided to build a larger instrument from 55-gallon oil drums. He unveiled the finished instrument while a contestant on the *Scouting for Talent* show. When Mannette went on stage at the contest, pulled out his big steel drum and played Ludwig von

⁹ Shannon Dudley, "Dropping the Bomb: Steelband Performance and Meaning in 1960s Trinidad," *Ethnomusicology* 46, no. 1 (Winter 2002): 138, accessed November 9, 2018, doi:10.2307/852811.

¹⁰ Shannon Dudley, *Music from Behind the Bridge: Steelband Spirit and Politics in Trinidad and Tobago* (New York: Oxford University Press, 2008), 277.

¹¹ Smith, 57.

Beethoven's *Für Elise* and Johannes Brahms' *Lullaby*, a screaming crowd acknowledged the birth of a new era in Caribbean music.¹²



Figure 2. *Ellie Mannette (Seated Right).*

Mannette stunned the crowd and won the contest with his new, bigger drum capable of fourteen pitches.¹³ Because of the performances of solo artists such as Winston “Spree” Simon and Ellie Mannette, western art music has been incorporated for the pursuit of steel pan innovation. What preceded can be viewed as his (Mannette) and the (pan) men’s inspirational years: the appearance of the four-note ping pong around the end

¹² Lawrence E. Murr and Everaldo Ferreyra Tello, “Connecting Materials Science and Music in Steel Drums: A serendipitous collection of scientific, especially metallurgical, principles created melodic instruments from sawed-off steel barrels,” *American Scientist* 88, no. 1 (January-February 2000): 38, <http://www.jstor.org.lynx.lib.usm.edu/stable/27857961>.

¹³ Lisa Rogers, “Elliott ‘Ellie’ Mannette,” *Percussive Notes* 41, no. 4 (August 2003): 14, accessed November 20, 2018, <http://www.pas.org/resources/research/archive-of-publications>.

of the '30s and into the early '40s; his introduction of the concave pan shortly thereafter; the barracuda's public appearance in 1945 then its theft; then the big pan in 1946.¹⁴ In the course of just one year, Winston "Spree" Simon and Ellie Mannette's innovations to early pan development was aided with the pursuit of performing western art music. The genre also helped shed some of the stigma that early steel pan music was given by the ruling classes. The continuing fight of steel pan social acceptance through western art music would continue with larger steel pan ensembles at the vanguard.

In the case of whole ensembles demonstrating the steel pan's musical capability through western art music one can look at the performances of the Casablanca Steel Band. In 1950, after playing "The Bells of Saint Mary's," a popular tune of the same time, the audience broke into wild cheers shouting "More! More! More!!!"¹⁵ For an encore, this group of musicians, who couldn't read a single note of music, performed an arrangement of Chopin's Nocturne in E Flat.¹⁶ The performance was a resounding success, aiding to the change in public opinion to the steel pan's musical capability and the musicians associated with them. Brunel Jones, a respected journalist of the *Trinidad Guardian* noted that "Gone are the days of social rejection associated with the steel band man and his music. Together, they had become poetry in rhythm. The din of a steel pan born in an atmosphere of unrest had given way to the classical works of Chopin, Strauss, Beethoven, and Brahms."¹⁷ With the adaptation of western art music to the steel pan, public sentiment began to favor the instruments and those associated with the pan.

¹⁴ A. Myrna Nurse, *Unheard Voices: The Rise of Steelband and Calypso in the Caribbean and North America* (New York: iUniverse, 2007), 356.

¹⁵ Smith, 54.

¹⁶ Ibid.

¹⁷ Ibid., 55.

On how playing “the classics” impacted the steel band community, Oscar Pile, founding captain of the Casablanca Steel Band, explains that “Casablanca Steel Band was a band respected by the other steel bands for their classical music, and was a top band, bands number one... It was the first band to play classics, and every competition that they had Casablanca are claimed the winner!”¹⁸

Public friction towards steel pan music began to ease in Trinidad and Tobago, as steel bands continue to improve their instruments and repertoire through the use of western art music and formally trained musicians. Whatever the misgivings they may have had about middle-class appropriation and meddling, the pan men were generally eager for musical guidance, because their reputations increasingly depended on the mastery of repertoires and skills that were not transmitted within their own sociocultural milieu.¹⁹ Pan tuners revived advice from formally trained musicians on chromatic tuning patterns that could facilitate performance of the classics and strove for a more resonant tone in their instruments.²⁰ Youth Council activist and lawyer Lennox Pierre, for example, took his violin to the pan yards of Invaders, Casablanca, and other bands in the late 1940s and 1950s to instruct them in chromatic tuning and classical music performance practice.²¹ The classics also challenged players to learn dynamics, articulation, and other skills that were little needed in calypso performances.²² As pan builders, musicians, composers, and arrangers continue to contribute to the development of steel pan music, ensembles began to bring their music to shores beyond their own.

¹⁸ Oscar Pile, circa 2000, “Interview by David V. Trotman,” *History Watch*, edited by Audra A. Diptee, accessed February 6, 2019, soundcloud.com/historywatch/sets/oscar-pile-interview-sound.

¹⁹ Dudley, *Music from Behind the Bridge*, 95.

²⁰ Dudley, *The Steelband Own Tune*, 19.

²¹ Dudley, *Music from Behind the Bridge*, 95.

²² Dudley, *The Steelband Own Tune*, 19.

By the early 1950's the steel band community had changed public perception of their music. Rivals of local bands, who have fought musically and physically for dominance, had collaborated in an organization called the Trinidad and Tobago Steel Band Association. Formed in 1950 the association believed that if members of rival bands could play together, the players would become friends, encouraging peace and goodwill among the groups.²³ In 1951, the association formed the Trinidad All Steel Percussion Orchestra or TASPO, as a cultural representative at the Festival of Britain.²⁴ But in order to make this steel pan envoy to Europe a successful endeavor, the organization needed a music director of formal training. Lieutenant Joseph Griffith, a trained musician for the St. Lucia Police Bandmaster and a former member of the Trinidad Police Band, was chosen as musical director.²⁵ Like Lennox Pierre, Lieutenant Griffith (Figure 3) taught the TASPO members the formal musical theory and training they had been seeking, and they carried new musical ideas from TASPO to their neighborhoods, including chromatic tuning, new repertoire, and professional standards of rehearsal and performance.²⁶ By 1951, the TASPO members were ready for their overseas tour.

²³ Smith, 69.

²⁴ Ernest D. Brown, "Carnival, Calypso, and Steelband in Trinidad," *The Black Perspective in Music* 18, no. 1/2 (1990): 95, accessed November 1, 2018, doi:10.2307/1214859.

²⁵ Smith, 70.

²⁶ Dudley, *Music from Behind the Bridge*, 96.



Figure 3. *TASPO (Lt. Joseph Griffith Conducting).*

As the band went onstage for its first festival performance on July 26, 1951, the English audience was shocked to see the crude rusty pans, made even rustier by exposure to the salty sea air during the long ocean voyage.²⁷ The skeptical audience would soon lose their questionable impressions of the strange instruments once the performance began. TASPO's repertoire included Johannes Brahms' "Cradle Song," the "Tennessee Waltz," Perez Prado's "Mambo Jambo," and many other diverse compositions.²⁸ The music critic of the *Manchester Guardian* found the band's playing of Toselli's *Serenade* as, "equal to anything that a first-class band could offer."²⁹ By the end of the tour, which included performances in France, TASPO had, in the words of the 1952 Farquhar Report

²⁷ Smith, 72.

²⁸ Shannon Dudley, *Carnival Music in Trinidad: Experiencing Music, Expressing Culture* (New York: Oxford University Press, 2004), 72.

²⁹ Aho, 46.

had “convincingly demonstrated the possibilities of the steel orchestras as a distinct and original contribution to the field of music.”³⁰ The TASPO European tour would be successful introducing steel pan music to international shores, though their influence did not just reach beyond the sea. There was also, back in Trinidad and Tobago, a marked effort by the middle class to embrace local arts, and participation in steel bands by college boys (middle-class educated young men) became a means of earning street credibility and hipness.³¹ With the formation of these steel bands comprised of middle-class individuals, the entire steel band movement gained a degree of social credibility that would eventually lead to many of the early steel bands becoming viable cultural institutions.³² The success of the Festival of Britain tour opened the doors for steel bands to perform in venues and concerts that would have been improbable years prior.

Following TASPO’s triumph at the Festival of Britain, a steel band category was created in Trinidad and Tobago’s annual Music Festival, which was mainly dedicated to the performance of European art music.³³ Though a significant step in the advancement of the steel pan, the adjudicators thought their initial approach to the classics was not impressive. In order to remedy this criticism pan innovator Tony Williams said that “Because of their participation in the festival, pan men were inspired to make improvements in the making, tuning, and playing of pans, as well as in arranging, orchestration, and general performance appearance.”³⁴ Instruments were placed on stands

³⁰ Aho, 46.

³¹ Stephen Stuempfle, *The Steelband Movement: The Forging of a National Art in Trinidad and Tobago* (Philadelphia: University of Pennsylvania Press, 1995), 101.

³² Andrew Martin, Ray Funk, and Jeannine Remy, *Steelpan in Education: A History of The Northern Illinois University Steelband* (DeKalb, IL: Northern Illinois University Press, 2017), 7.

³³ Dudley, *Music from Behind the Bridge*, 98.

³⁴ Smith, 76.

instead of hung around the neck, multiple drums were used to accommodate better sound for lower instruments, and harmonic tuning was introduced to achieve a more sophisticated, complex sound.³⁵ In a 1986 *Percussive Notes* interview Ellie Mannette, discussed the improvements he made to the pan instruments used in the early 1950's:

We spent nearly a year between London and Paris (TASPO). All we had then was a single bass, a single second, single guitar, double cellos, and single leads. When we came back in '52, I endeavored to develop the art; so instead of having one second pan, I created two. And in '54, I made a double guitar indeed of one guitar, etc.³⁶

Other innovations in steel drum design that are credited to (Ellie) Mannette include triple cellos (1956), Tenor Basses (1960), and Quad Duet (1996).³⁷ These innovations would continue to raise the musical capability of the steel pan and continuing their influence on those who listen to their music. Dr. Sydney Northcote from England, who was skeptical at first of the steel bands musical capability, stated in 1956 that “their performance was orchestral in every way. The melodic line was beautifully smooth, almost like the playing of a string orchestra... The technical skill of it all proved that there are possibilities of acquiring with the steel band an orchestral precision.”³⁸ With the influence of western art music, in the course of less than a decade the steel pan has evolved from a series of crude percussive instruments to an arsenal of organized and structured voices that forms what today is considered the modern steel orchestra.

³⁵ Smith, 76-77.

³⁶ Gary Gibson, "Ellie Mannette on the Beginnings of Pan in Trinidad," *Percussive Notes* 24, no. 4 (April 1986): 36-37, accessed November 20, 2018, <http://www.pas.org/resources/research/archive-of-publications>.

³⁷ Rogers, Ellie Mannette, 14.

³⁸ Aho, 51.

The adaptation of western art music has given clear influence in the advancement of steel pan music during its early years. The performance of the classics helped not only bring the steel pan from the streets to the national instrument of Trinidad but also aided in organizing the modern steel pan orchestra. With the modern steel pans composers and arrangers can create more complex orchestrations, original compositions, and arrangements. With this in mind it is important to know the general graduated ranges of the steel pans along with typical issues with arranging music for steel pan, specifically western art music for steel pan chamber ensemble.

CHAPTER II – THE MODERN STEEL PAN

The history of the steel pan has a relatively small timeline compared to other instruments of the world, but the trials and errors of the steel pan's early developers have resulted in a series of individual voices that is known as the modern steel orchestra. Since the early years of the steel pan, the instruments have ventured from the islands of Trinidad and Tobago to all stretches of the world supplying their unique sound to various genres, performances, and organizations of music. This chapter will discuss basic steel pan construction and design of the instruments that will appear in the chamber arrangements discussed later in the dissertation. It is important for any aspiring composer and arranger of steel pan music, regardless of genre, to understand the properties, functions, and roles of the major voices of the steel pan orchestra.

Regardless of type, all pans have three standard components: a *face*, which is the convex, bowl-shaped surface where the beating spots are located; a *skirt*, which consists of the side walls of the barrel and varies in length depending on the instrument type; and a *rim*, which connects the face to the skirt.³⁹ From these components pan builders have created an array of instruments that have followed common building techniques while making new variations to the steel pans.

Steel drum making involves a complex process, which may vary depending on the orchestral voice of the drum and on the builder's fabrication procedure.⁴⁰ Nevertheless, the procedure of creating the pan face follows a similar process. Building a steel drum is

³⁹ Chris Tanner, *The Steel Band Game Plan: Strategies for Starting, Building, and Maintaining Your Pan Program* (Lanham, MD: Rowman & Littlefield Education, 2007), 21.

⁴⁰ Lawrence Murr and Larry White, "Metallurgy of the Caribbean Steel Drum," *Percussive Notes* 38, no. 1 (February 2000): 57, accessed April 13, 2017, <http://www.pas.org/resources/research/archive-of-publications>.

a laborious process, plagued by the idiosyncratic layout of notes and the temperamental metal playing surface.⁴¹ The higher voiced instruments will have more pitches per face compared to the lower voiced pans. The fabrication procedure of the higher frequency steel pans is summarized in the following process (Figure 4):

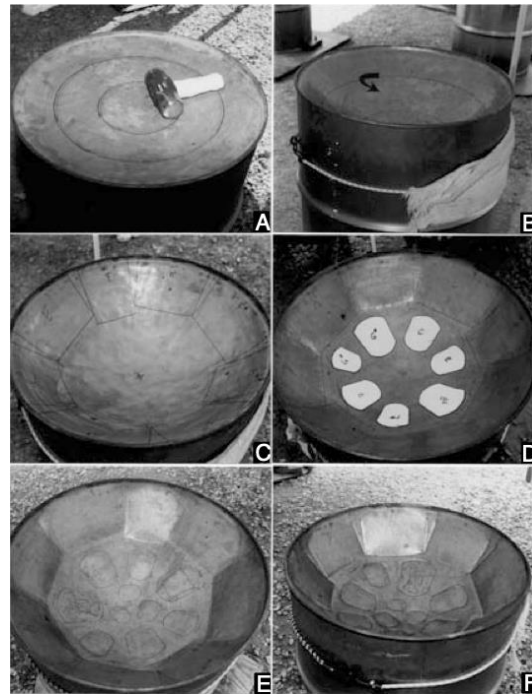


Figure 4. *Forming the Face of a Steel Pan.*

⁴¹ Andrew R Martin, "A Voice of Steel through the Iron Curtain: Pete Seeger's Contributions to the Development of Steel Band in the United States," *American Music* 29, no. 3 (Fall 2011): 354. accessed April 19, 2017, doi:10.5406/americanmusic.29.3.0353.

- (A) Sinking or doming the drum bottom (lid) into a nearly concave hemisphere to a depth of seven to eight inches from the surface plane using a sledgehammer
- (B) Placing the notes on the concave drum surface
- (C) Forming the notes as convex ellipsoids on the drum surface within the note zones
- (D) Grooving an outline for each note to partially isolate its acoustics and leveling the convex “dents” to the same secondary hemispherical line (i.e. from the domed surface the notes are pushed out to the to the same distance)
- (E) Heat treating the drum surface to create a strain relief
- (F) Smoothing the grooved edges of the notes by hammering the zones adjacent to the grooves
- (G) [*not pictured in figure*] Tuning the strain-relieved notes to characteristic fundamental frequencies near the note centers and to at least one octave and one harmonic for each note⁴²

The process of building pan faces has become standard throughout the years of the modern steel orchestra, although today’s pan builders are using more advanced and better technology to speed production, like the handheld pneumatic hammer to better sink faces and using a tuning strobe for more accurate tuning.⁴³ The sinking and formation of the face of the lower ranged instruments is a relatively similar procedure until the layout of the pitches are considered. For lower ranged instruments, the concave face of the lid

⁴² Murr and White, 57.

⁴³ Smith, 141.

can be sunk as little as to two or three inches⁴⁴. The face of the steel pan contains the pitches used to make music, but like many other idiophones the instrument needs a resonating component, for the steel pan this resonating component is the skirt.

The skirt, as explained earlier in this chapter, is made of the cylindrical shaft of the oil drum, which acts as a resonator and is cut to provide the appropriate timbre.⁴⁵ The length of the skirt is generally related on the register of the pan since the lower notes need more resonating material to achieve the best timbre. The highest voiced pan can have a skirt length of only about six inches whereas the lower voiced pans can use the whole length of the oil drum length of thirty-four inches.⁴⁶ Pans with such skirt lengths would be difficult to perform in the more mobile early pan era, but with the incorporation of stands to suspend the instruments it was practicable to not only use pans of lower skirt length but of greater numbers. Instruments with long skirts that extend nearly to the floor are often freestanding.⁴⁷

⁴⁴ Dudley, *Music from Behind the Bridge*, 285.

⁴⁵ Murr and White, 59.

⁴⁶ Ibid.

⁴⁷ Tanner, *The Steel Band Game Plan*, 21.

The final component, the rim, connects the face of the pan to the skirt. Though this is a vital property of the instrument, there is little to no manipulation of the rim from its original shape. Although the steel pan is the primary component of its sound, there is however a tool used to create the proper tones related to the instrument.

Like other idiophones, the steel pans are performed with the use of some sort of implement, in this case a mallet. The components of a pan mallet are similar to that of a standard marimba mallet, consisting of a shaft and a tip, however pan mallet shafts are typically made of hollowed aluminum or wood with rubber tubing for the playing component. Pan mallets differ for each voice depending on register (Figure 5), those for upper register require less mass on the beating end, and the shafts are usually around eight to nine inches in length.⁴⁸ Mallets for guitar and cello pans have more layers of rubber on the end, and feature longer shafts (approximately ten inches).⁴⁹ Bass pan mallets typically have a shaped rubber ball on the end instead of rubber tubing.⁵⁰

⁴⁸ Tanner, *The Steel Band Game Plan*, 17.

⁴⁹ Ibid.

⁵⁰ Ibid.



Figure 5. *An Assortment of Pan Mallets.*

With knowing the properties and functions of the various parts that make up the modern steel pan, we can explore the instruments of the steel orchestra, the general ranges of each instrument, and their musical roles.

The common issue of building the various steel pan instruments is the arrangement of the pitch cells. The lack of standardization among pans is manifest in several ways, the most significant of which involves the pitch layout, or the arrangement of pitch areas on the face.⁵¹ Commonly round and U-shaped, the cells arrangement are varied based on the specific instrument. It should be noted that these U-shapes are carefully graded as to size, since the smaller the enclosed area, the higher the pitch the sound produced.⁵² Due to these variations in pitch range and layout, the remaining chapter will discuss the more common steel pan instruments used in steel pan ensembles today.

⁵¹ Tanner, *The Steel Band Game Plan*, 21.

⁵² Peter Seeger, "The Steel Drum: A New Folk Instrument," *The Journal of American Folklore* 71, no. 279 (1958): 52-57, accessed April 24, 2017, doi:10.2307/537959.

Tenor (Lead) pan is the highest voiced instrument in the steel pan family made from a single drum, while other pans are designed in sets of two to twelve separate drums, depending on register (lower notes need more surface area).⁵³ Though sometimes called the tenor pan, the voice of the instrument is more similar to that of a soprano voice. Just like the soprano voice, the lead pan typically performs the melody in steel pan repertoire. The typical range of a lead pan is from C4 to G6 depending on the manufacturer.⁵⁴ Lead pans may have several different pitch layouts, but the most common layout is often called a “circle of fifths pan,” because the pitches are arranged in an inverted circle of fifths.⁵⁵ Below is a diagram of a tenor pan (Figure 6).

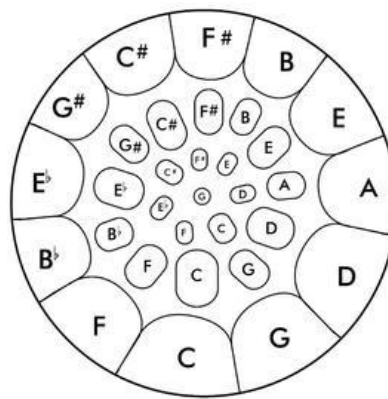


Figure 6. *Tenor Pan*.

⁵³ Dudley, Shannon, 2001 "Steel band," *Grove Music Online*, accessed December 22, 2018, <http://www.oxfordmusiconline.com.lynx.lib.usm.edu/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000026590>.

⁵⁴ L. Pichary, "Results of the Steel Pan Survey 90," *Trinidad and Tobago Bureau of Standards* (1990): quoted in Thomas A. Rossing, Uwe J. Hansen, and D. Scott Hampton, "Vibrational mode shapes in Caribbean steel pans. I. Tenor and double second," *The Journal of the Acoustical Society of America* 108, no. 2 (September 2000): 804, accessed December 29, 201, doi: 10.1121/1.429613.

⁵⁵ Tanner, *The Steel Band Game Plan*, 23.

Double Tenors pans are another high ranged instrument of the steel pan family comprising of two drums with a slightly longer skirt than the lead pan. This pan has a register similar to that of a double second, but is used almost exclusively to double or harmonize the melody.⁵⁶ The double tenor has a general range of F3 to Bb6.⁵⁷ One unique property of the double tenor is their pitch layout. When they were first introduced in the early 1960s, Bertie Marshall's double tenors impressed pan men with their bright sound, which he achieved by tuning of the harmonics and by note placement.⁵⁸ The distribution of notes has a less obvious music logic, however, compared to the double seconds, and perhaps for that reason the double tenor is used less today.⁵⁹ A diagram of double tenors pans are below (Figure 7).

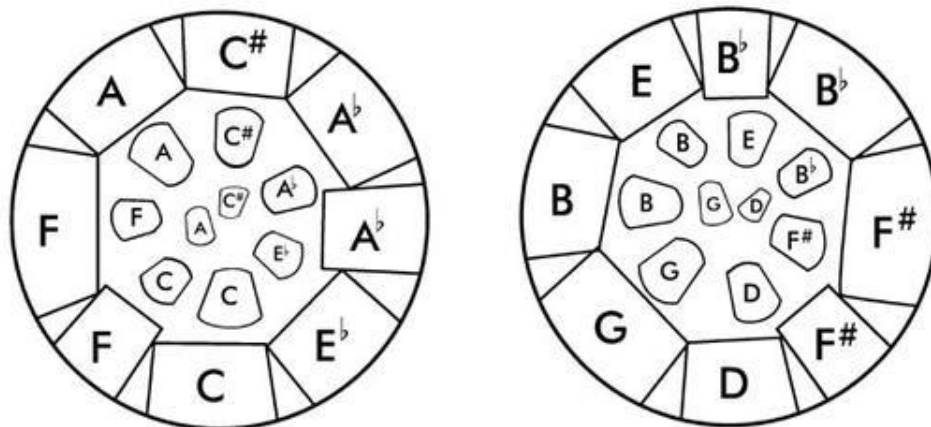


Figure 7. *Double Tenors*.

Double Seconds pans are a two-drum instrument similar to the double tenors in function, range and appearance. The double second pan, like the double tenor pan, can be used as a melodic instrument in a band setting, but the instrument most often provides

⁵⁶ Dudley, *Music from Behind the Bridge*, 282.

⁵⁷ Pichary, *Results of the Steel Pan Survey*, 804.

⁵⁸ Dudley, *Music from Behind the Bridge*, 282.

⁵⁹ Ibid.

harmonic support.⁶⁰ The double second has an approximate range of F#3 to C#6.⁶¹ Aside from these similarities the major difference between these the double tenors and double seconds comes from their pitch layout. The distinctive feature of this pan as it is tuned today is its complementary whole tone scales, one in each drum, which makes it possible to play a chromatic scale by a simple alternation of right and left-hand strokes.⁶² Compared to the layout of the double tenors, the double seconds versatility makes it the more favored between the double pans. Below is a diagram of double seconds pans (Figure 8).

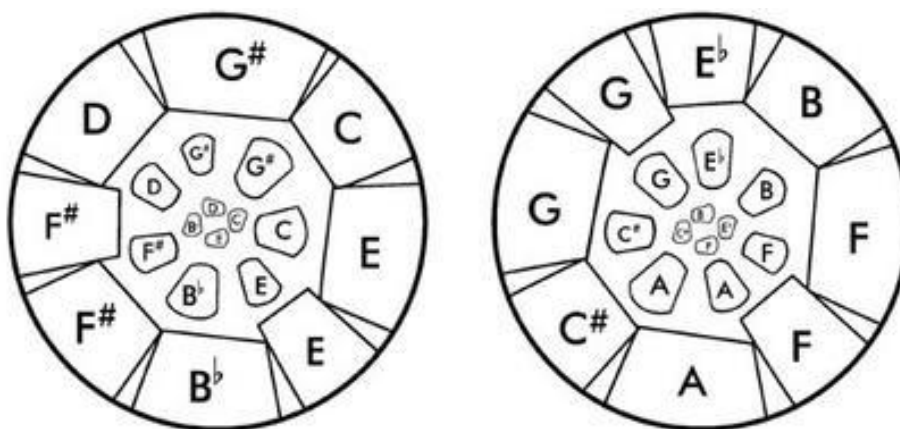


Figure 8. *Double Seconds*.

Quadraphonic pans are a mid-range instruments of the steel pan orchestra made up of four pans. These four pans are arranged in a specific manner with two pans placed horizontally and the other two pans raised vertically. These distinct pans are based on augmented chords⁶³ and have a typical range of B2 to Bb5.⁶⁴ Due to the arrangement of the pans coinciding with the overlapping ranges of the double and triple pans, the

⁶⁰ Tanner, *The Steel Band Game Plan*, 24.

⁶¹ Pichary, *Results of the Steel Pan Survey*, 804.

⁶² Dudley, *Music from Behind the Bridge*, 281.

⁶³ *Ibid.*, 283.

⁶⁴ Pichary, *Results of the Steel Pan Survey*, 804.

quadrophonics are rarely seen in steel pan ensembles compared to other instruments of the orchestra. The primary reason for including this instrument in this chapter is that one of the arrangements that will be discussed includes the quadrophonics pan. Below is a diagram of quadrophonic pans (Figure 9).

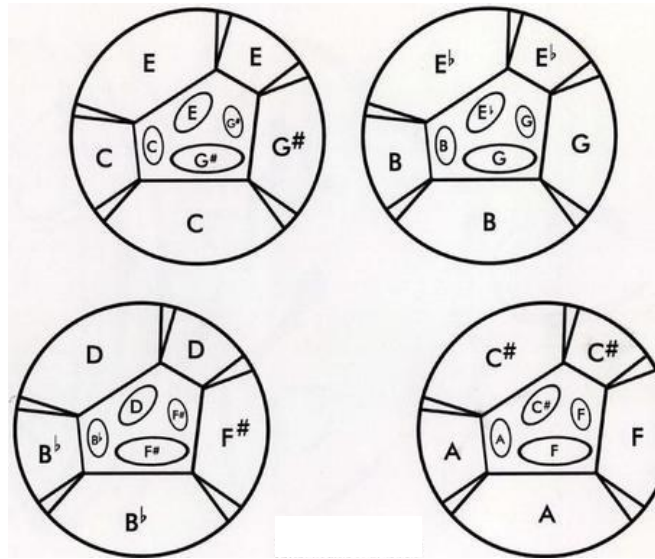


Figure 9. *Quadrophonics.*

Cello/Guitar pans are mid-range instruments of the steel pan family consisting of three drums. Similar in their range, layout, and function, the difference between the cello and triple guitar pans is that the guitars have a shorter skirt than their more formal counterpart. This instrument type in a band setting typically provides harmonic support, although guitar pans/cello pans sometimes perform countermelodies or double the bass line.⁶⁵ The range for these instruments are generally from B2 to B4.⁶⁶ The layout for

⁶⁵ Chris Tanner, *The Steel Band Game Plan*, 25.

⁶⁶ Pichary, *Results of the Steel Pan Survey*, 804.

these triple pans are tuned in a pattern of three complementary diminished chords, one in each drum.⁶⁷ Below is a diagram of cello/guitar pans (Figure 10).

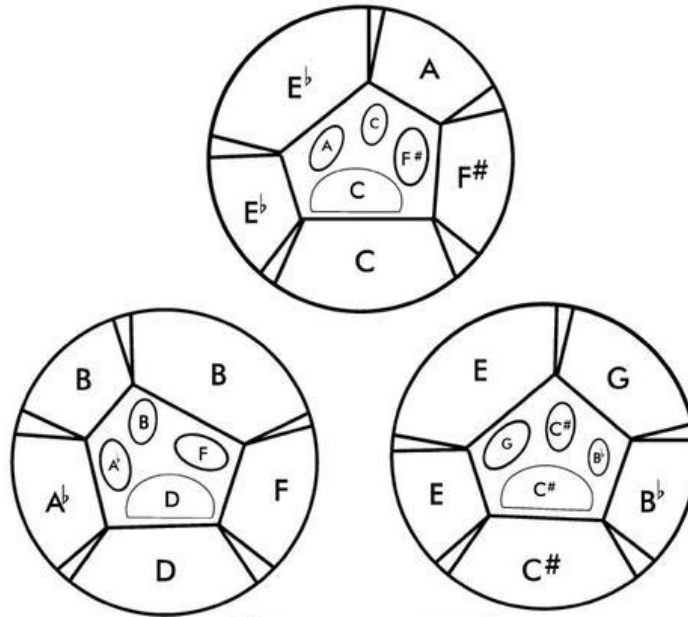


Figure 10. *Cello/Guitar Pans.*

Bass pans are the largest and deepest voiced instruments of the steel pan family. The bass pan has the lowest register in the ensemble and underpins the music both harmonically and rhythmically.⁶⁸ Since these instruments are featuring the largest and lowest notes of all pans, basses are tuned in sets of six to twelve, each a full size 55-gallon drum.⁶⁹ The pitch layout of a bass pan is typically three notes in a fifth and octave

⁶⁷ Dudley, *Music from Behind the Bridge*, 282.

⁶⁸ Tanner, *The Steel Band Game Plan*, 25.

⁶⁹ Dudley, *Music from Behind the Bridge*, 284.

interval (ex. C-G-C). The range of a six-bass pan, the most commonly found set in North America, is generally A1 to D3.⁷⁰ A diagram of six bass pans are below (Figure 11).

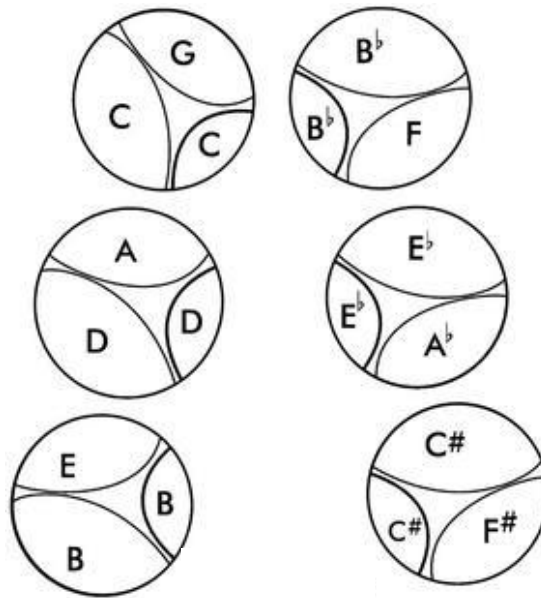


Figure 11. *Six Bass*.

⁷⁰ Pichary, *Results of the Steel Pan Survey*, 804.

With the aforementioned instruments, and others from the steel pan orchestra (Figure 12), a composer or arranger has a wide range of voices to create the music they desire. This, however, is not the end of the creative endeavor of steel pan development since today's pan builders and music technologists are creating innovative ways to make music through these instruments.

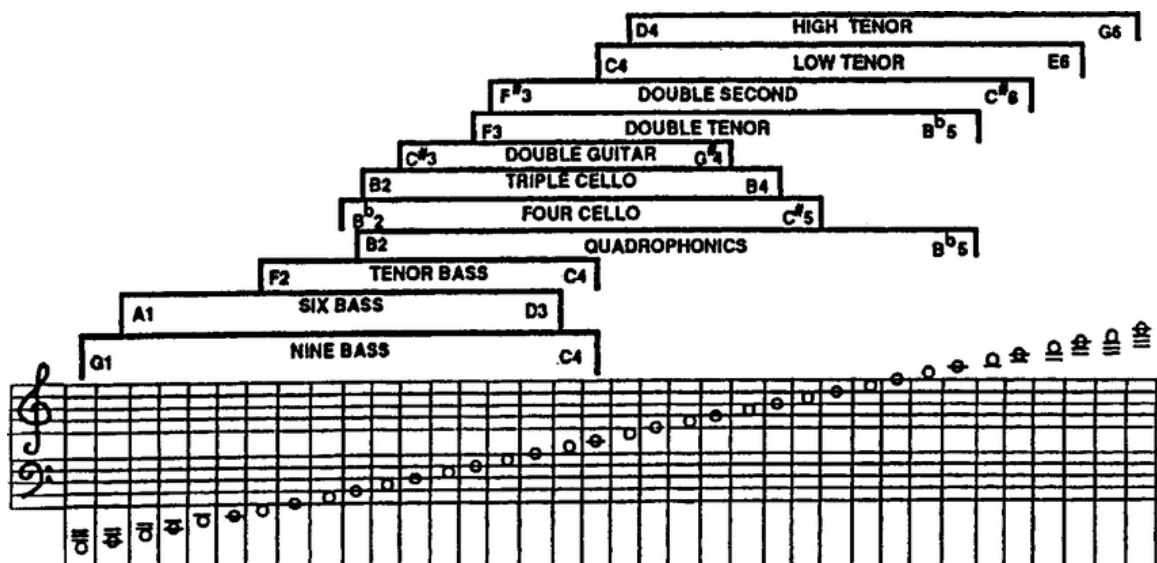


Figure 12. *Typical Ranges of Steel Pans.*

CHAPTER III – ARRANGEMENT ANALYSIS OF J.S. BACH’S SARABANDE
AND DOUBLE FROM PARTITA NO. 1 IN B MINOR (BWV 1002) FOR STEEL
PAN TRIO

It is no surprise that the works of Johann Sebastian Bach are some of the most performed in western art music. His repertoire has not only been performed numerous times in their original context but has been adapted to instruments and genres that did not exist at the time of Bach’s life. Arranger Adam Grisé has adapted two movements, Sarabande and Double from Bach’s *Partita No. 1 in B Minor (BWV. 1002)*, for tenor, double seconds, and cello pans. What follows in this chapter is a discussion of the rhythmic, harmonic, melodic, and other significant alterations made by Grisé which he has made to successfully arrange this work for steel pan trio. But before the analysis can be explained it is important for the reader to know a brief history of Bach’s work for solo violin.

At the time of Bach’s completion of the work in 1720, he was appointed Kappellmeister at the court of Anhalt-Cöthen where the prince’s (Leopold) interest was not in religious works but in instrumental compositions.⁷¹ The strict Calvinism embraced by the prince and his court precluded involvement with elaborate church music, but the existence of a lively *collegium musicum* provided the opportunity for Bach to complete and perform several instrumental works, including his keyboard suites and inventions, the first book of *The Well-Tempered Clavier*, various violin and cello sonatas, suites, and

⁷¹ *The Oxford Dictionary of Music*, 6th ed., s.v. Bach, Johann Sebastian,” accessed January 2, 2019, <http://www.oxfordreference.com/view/10.1093/acref/9780199578108.001.0001/acref-9780199578108-e-643>.

partitas, and the six Brandenburg Concertos.⁷² What is amazing is that much of the music Bach composed during his tenure at Cöthen was nearly lost in the years after his death. The manuscript of the six sonatas and partitas for solo violin, in fact, was discovered in 1814 in St. Petersburg among a stack of old paper destined to be used as wrappings in a butter shop.⁷³ Compared to the solo sonatas written at the same time, the style of the three partitas is lighter and freer, following rather loosely the pattern of the baroque dance suite; but each partita has its own individual characteristics, thus in the *Partita No. 1 in B Minor*, each of the four dance movements is followed by a *double* - a variation in which the note values have been halved.⁷⁴

In a correspondence with Adam Grisé, the arranger explained his decision on choosing this Bach Partita for steel pan trio:

I first came in contact with Bach's Partitas and Sonatas for Solo Violin during my undergraduate studies in steel pan at Northern Illinois University with Liam Teague. A few years later when I was the Musical Director for the Cultural Academy for Excellence and Positive Vibrations Youth Steel Orchestra, I would occasionally draw on the Partitas and Sonatas for some of my more advanced students. I put this particular trio together partly as an arranging exercise for myself and partly for a group of advanced students to work on some chamber music. The B minor partita had been a favorite of mine and these two movements seemed to lend themselves well to my constraints and goals for the project.⁷⁵

While arranging the Bach Partita, Grisé remembers referring to the Klaus Ronnau edition of the work published by G. Henle Verlag. This particular edition of the Partita,

⁷² Basil Smallman, "Bach, Johann Sebastian," s.v. *The Oxford Companion to Music*, accessed January 2, 2019, <http://www.oxfordreference.com/view/10.1093/acref/9780199579037.001.0001/acref-9780199579037-e-522>.

⁷³ Bach, J.S. *Sonatas and Partitas for Violin Solo*. Ed. Ivan Galamian. International Music Company: New York, 1971.

⁷⁴ Ibid.

⁷⁵ Adam Grisé, e-mail message to author, February 25, 2019.

contains both a urtext of the work but a version with suggested fingering, bowing, and ornament markings for the solo violin. Grisé said that primarily he used the urtext as reference but would occasionally go to the other edition in making this arrangement.⁷⁶ Therefore, the analysis will consist of comparisons between this particular edition with Grisé's 2009 arrangement from Engine Room Publishing Company.

Organizing an instrumental trio from a solo instrument can have its share of challenges. Grisé explains:

I believe a fundamental challenge for the arranger is providing a meaningful and worthwhile musical experience for each voice in the ensemble...This challenge was particularly important while arranging this piece because I was translating from a work for a solo soprano voice to a work for soprano, alto, and tenor voices.⁷⁷

Grisé has arranged the two movements of Bach's solo violin Partita for tenor, double seconds, and cello steel pans, so one of the most interesting challenge is how the arranger manages to accommodate a solo work in a chamber setting such as a trio ensemble. In this case, the arrangement divides the solo into three staves of music and designates the melody and chords based on the register on which it falls. For tenor pan, the highest voice of the trio, Grisé designates most of the higher register notes, the double seconds play the middle register, and the cello plays the lower register. The division of

⁷⁶ Adam Grisé, text message to author, February 28, 2019.

⁷⁷ Adam Grisé, e-mail message to author, February 25, 2019.

the solo violin for the pan trio can be seen in the excerpt below (Musical Example 1).

There are, however a few exceptions to this organization.

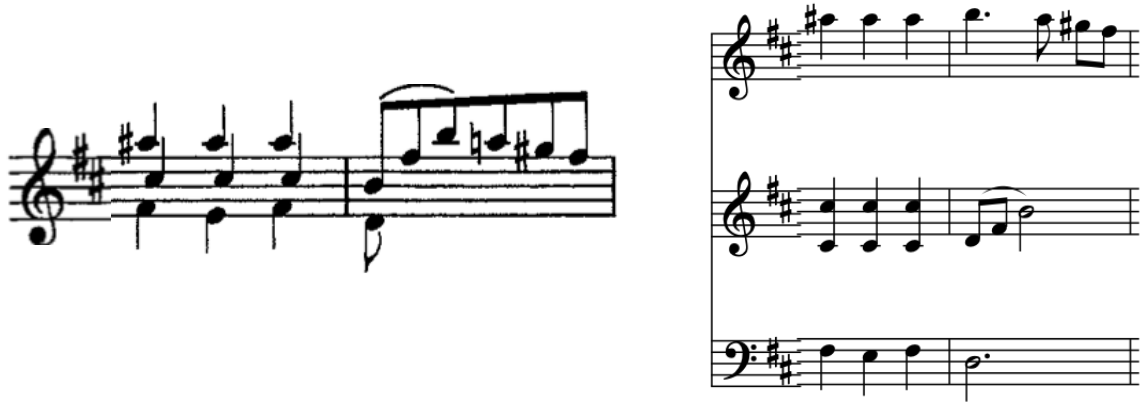
The image displays a musical score for a steel pan trio arrangement. It consists of four staves. The top staff is the original solo violin. The three staves below it are for the Steel Pan Trio: Tenor (treble clef), Dbl. Seconds (treble clef), and Cello (bass clef). The music is in 3/4 time and the key of D major. The original solo violin part is divided among the three instruments, with some notes appearing in multiple parts.

Musical Example 1 Original Solo Divided for Steel Pan Trio (mm. 1-4).

One of the most common changes made in this arrangement of Bach's Sarabande are the displaced pitches to accommodate the steel pans. For the tenor pan there are a few displaced pitches found in the movement. In measure 11 of the first beat, the B4 is an octave higher (8va) than in the original violin solo (Figure 2). This is a curious displacement because the original B4 is well within the range of the tenor pan (C4 to G6)⁷⁸. The change in register for this note is most likely be consistent with the notes that precede and succeed the displaced pitch (A#5/B5/A5). A similar pitch (E4) is raised an octave in measure 21 beat 1, again the pitch is within the range of the instrument and is actually the middle pitch of the triad (C#4/E4/A#). The reason for is is likely to not only

⁷⁸ Pichary, *Results of the Steel Pan Survey*, 804.

keep consistency of the melodic contour of the tenor line (G5/E5/G5) but of the double seconds since the previous measure for the double seconds have a descending step motion of quarter notes (D5/C#5/B4). Similar pitch displacements in the Sarabande for the tenor pan include measures 11 and 26.



Musical Example 2 Pitch Displacement in Tenor (mm. 10-11).

The double seconds have more examples of pitch displacement than found in the tenor pan. In the first measure of the movement (Musical Example 3), the double seconds have a series of dyads in quarter notes, what is different is that the lower pitches of the dyads are originally an octave higher. The pitches (D5/D5/C#5) are well within the range of the double seconds (F#3 to C#6)⁷⁹ and does not interfere with any melodic contour of itself or the other instruments. One could argue that the reason for bringing the notes down an octave is to give the melodic line, found in the tenor, more exposure as compared to the tight intervals of the original work. With the displaced pitches, all three instruments have enough space to be heard more clearly in the first measures, an

⁷⁹ Pichary, *Results of the Steel Pan Survey*, 804.

important aspect in arranging for pan since the various instruments overlap in range and share a similar timbre. Other pitch displacement in the Sarabande for the double seconds include measures 10 and 11.



Musical Example 3 Pitch Displacement in Double Seconds (mm. 1-2).

The cello pans, compared to other voices of this arrangement, have the most pitch displacements of the Sarabande. In all of the displacements, some stretching several measures (the longest mm. 28-33), the pitches are an octave below the original material. Though most of the original lower pitches are within range of the cello (B2 to B4)⁸⁰, there are a few reasons as to why the arranger displaced the pitches in such a way. One reason has been previously explained, spacing the intervals gives more clarity to the voices and their individual material. Another probable reason is that that given the higher pitch of the original work compared to the range of the cello, it is more suitable for the performer and the ensemble if the notes are moved down an octave. The size of the pitch cells correlate with the register of the pitch, lower pitches are larger than the higher

⁸⁰ Pichary, *Results of the Steel Pan Survey*, 804.

itches. This means that a player must strike pitch areas with different amount of force in order to create an equal dynamic across the range of the instrument.⁸¹ With the notes in a lower range of the cello, the performer can create a more gentle articulation and provide more resonant tone to the ensemble. Such displacements in the cello can be seen in the excerpt in measures 10 and 11 (Musical Example 4).



Musical Example 4 Pitch Displacement in Cello (mm. 10-12).

These pitch displacements, when given proper context, are necessary in order to provide the ensemble and the listener a better experience in the arrangement of the solo. The pitch displacements in the Sarabande movement were more noticeable due to the vertical and linear contour of the music. The more arpeggio based Double movement however, was a bit more difficult to decipher.

⁸¹ Tanner, *The Steel Band Game Plan*, 70.

In this Double, the music is in almost constant motion through a series of arpeggios. The steel pan arrangement explores how this active movement can be organized for three performers. For the tenor pan the displaced pitches in the Double are sparse occurring in measures 20 (A5), 24 (E5), 25 (F#5), and 28 (F#5). Like the Sarabande these pitch displacements, all moved an octave higher than originally written, done so to accommodate the melodic contour of the tenor pan.

Surprisingly for the double seconds, there is only one occurrence of pitch displacement as the last two eighth notes of measure 14 (D#4/E4) are moved down an octave from the original (Musical Example 5).



Musical Example 5 Pitch Displacement in Double Seconds (m. 14).

Again, one could argue that the reason for these displacements are to accommodate the linear contour of the double seconds, however, the notes could have been just as effective in its original register with the tenor pan. Looking at the arrangement, the cello has an B major arpeggio on beat 2 and ending on the downbeat of

beat 3 (B3). From beat 3 the double seconds continue the arpeggio on the second partial to the end of the measure. From this trade-off between the cello and double seconds the pitch displacement makes more sense.

As it was in the Sarabande, the cello has the most pitch displacements due to its lower range capability compared to the violin. Like the Sarabande, the cello pan music has changed the register of pitches from a span of a few notes to a few measures. What is different in this movement is that some of the cello's pitch displacements are moved beyond an octave.



Musical Example 6 Pitch Displacement in Cello (mm. 19-20).

In measure 19 (Music Example 6), the last two eighth notes (E3/F#3) and the first note of measure 20 (E3) are moved two octaves below its original register. Though moving the notes one octave would have been in range for the cello it would have been in close proximity to the material performed by the double seconds. Similar to the Sarabande, a suitable distance of intervals between the instruments can give better definition between their material as well as a more resonant tone in the lower register of the cello pan. The excerpt of the discussed pitch displacement is shown below (figure 3.5). Other occurrences of pitch displacement beyond an octave in the cello can be found

in measure 16 beat 1 (E3), measure 18 beat 3 second partial (A3), measure 21 beat 2 (G3), measure 22 beat 2 (D3), and measure 28 beat 1 (E3).

A good arranger intimately understands the capabilities and imitations of the instruments in his or her ensemble.⁸² Arranging a solo violin work for three instruments can be a challenging task, especially with instruments that were not yet invented at the time of the composition. In the context of Grisé's arrangement, several rhythmic alterations were made to the original material of Bach's Sarabande and Double. There are a few patterns to which notes have been expanded from their original duration. One pattern of expanding rhythms focuses on the chord tones that support the melodic line. For example, the second measure of the Sarabande, the tenor pan is performing the melody while the double seconds and cello play the chord tones (D3/D4/F#4). These chord tones are present in the original violin solo though the roots are lowered an octave. The difference is that the chord tones have been expanded from a dotted quarter note to a half note. This extension of the chord tones can be made since the melody is separated from the rest of the music. With this extension the music has a clearer harmony supporting the melody as can be seen in the excerpt below (Musical Example 7).

⁸² Chris Tanner, "Steel Band Repertoire: The Case for Original Music," *Music Educators Journal* 97, no. 1 (September 2010): 59, accessed February 11, 2019, www.jstor.org/stable/40960179.



Musical Example 7 Rhythmic Alteration in Tenor/Double Seconds/Cello (mm. 2-4).

Grisé explains his reason for expanding the duration of such notes as essential in order to utilize the instruments' contribution to the music; specifically, "due to the technical limitations of a single violinist, notes that would otherwise be sustained in a chorale setting of a work are abandoned as the soloist moves between the lines."⁸³ Such an explanation is reason why certain notes of the original work are altered as seen in both Sarabande and Double movements.

Another example of rhythmic alterations involves linear extensions of tones. This particular kind of rhythmic extension is more common in the Double movement. Like the Sarabande, there are rhythmic extensions of chord tones in order to reinforce the harmonic structure of the music. However, since the Double has more of a linear contour the harmonic structure can be found within the melodic line, or in the case of measure 30

⁸³ Adam Grisé, e-mail message to author, February 25, 2019.

(Musical Example 8) it is the melodic line. In this measure each voice has given a pitch of diatonically descending arpeggios (B minor/A major/G major), the tenor has the roots (B5/A5/G5), the double seconds have the thirds (D5/C#5/B4), and the cello have the fifths (F#3/E3/D3). In the original violin solo the pitches are all of equal eighth note duration. In Gris 's arrangement however, the tenor's notes, falling on the 2nd partial of each beat, are extended to a quarter note value while the double seconds' notes, falling on each downbeat of the measure, is extended to a dotted quarter note. Only the cello, with its notes on the third partial of every beat, have not been extended from their original value. Observing the arrangement, Gris  gave the note value to each partial's value within the beat, down beat gets three eighth notes, 2nd gets two, and 3rd gets one.



Musical Example 8 Rhythmic Alteration in Tenor/Double Seconds (m. 30).

Like the rhythmic alterations of the Sarabande, Grisé explains the purpose of altering rhythms in the Double movement:

In the Sarabande I took a more straight-ahead chorale realization approach, whereas in the Double, I've extracted three distinct lines from the texture, allowing each line to sustain as made musical sense to me and fit the character and constraints of each instrument.⁸⁴

Such pitch extensions bring up a question of performance interpretation for steel pan and other percussion instruments, the use of the roll. Rolling is a way for a pan player to simulate a sustained sound, of course a true sustained sound cannot be achieved because the player is not using breath or a bow, for example.⁸⁵ However, not all works written for or arranged for pan will contain indications for rolling notes. Only half of the works analyzed in this dissertation have roll markings in the music. Going back to measure 29 of the Double movement, it would probably be more consistent with the rest of the ensemble if longer notes from the tenor and double seconds not to execute rolls. In measure 24 of the Double, however, the double seconds have a pitch (A#4) that extends to the entire value of the measure. With the busy melody occurring in the cello (Musical Example 9), rolling the pitch in the double seconds would prevent the pitch being lost in the music.

⁸⁴ Adam Grisé, e-mail message to author, February 25, 2019.

⁸⁵ Tanner, *The Steel Band Game Plan*, 70-71



Musical Example 9 Rolling on Extended Pitches (m. 24).

The steel pan has a noticeably longer resonance compared to an instrument like the xylophone, however, it is up to the performer in instances like the Gris  s arrangement to decide whether a particular pitch is needed to be sustained.

All of the aforementioned displacements have been merely moving pitches to different registers or expanding pitch durations to accommodate the steel pan trio arrangement. With arranging for three instruments to a solo work it is difficult to organize material without thinning out the texture, in this challenge Gris   incorporates additional pitches to the work.

Though it seems like crossing a red line in the aspects of arranging a work, especially one of J.S. Bach, the additional pitches look to reinforce the harmony and texture of the arrangement. An example these additional pitches can be found in the fourth measure (Musical Example 10) of the Sarabande.



Musical Example 10 Pitch Addition in Double Seconds (m. 4).

In this measure, the tenor holds the third (A#4) of an F# major chord with the double seconds playing the root (F#4) and the cello performing the melody. What Grisé does in the arrangement is add the fifth (C#4) in the double seconds, giving the harmony a solid triad to support the melody. This harmonic reinforcement can also be found in many other measures in this movement, including measures 4, 6, 10, 17, 22, and 25.

The aforementioned additional pitches in Grisé's arrangement have served to both reinforce the harmony and broaden the texture of the steel pan trio. There are also discrepancies pertaining to additional pitches in the Double. In measure 14 (Musical Example 11) the melodic line has been mostly claimed by the cello while the tenor and double seconds have a collection of broken expanded and displaced pitches.



Musical Example 11 Pitch Addition in Cello (m. 14).

What is curious of the cello's material is that all of the content in this measure has been added in the arrangement. Observing the published edition and the autographed manuscript confirms that the pitches from the cello cannot be found in the solo. The cello's notes began on the 2nd partial of the 1st beat with two eighth notes (E3/D#3), completes a B major triad in beat 2 in eighth notes (B2/D#3/F#3), and concludes on beat 3 with a dotted quarter note (B3). For adding the pitches in the arrangement Gris  claims that "All of the pitches I added A) helped realize complete triads that Bach left as double stops due to presumed solo violin technical limitations, and/or B) served the musical coherency of the individual part in which they're found."⁸⁶

Baroque music is known for its ornamentally rich music, in the case of the two movements in question however, there is only one example of ornamentation in the

⁸⁶ Adam Gris , e-mail message to author, February 25, 2019.

music. In measure 32 of the Sarabande the dotted quarter note (C#5) in beat 2 has a trill mark (*tr*), this same ornament is found in the same register of the tenor voice of the arraignment. It should be noted that in the urtext of the Sarabande there is no trill marking for this note, there is however such a marking found in the marked edition of the published solo (Musical Example 12).



Musical Example 12 Trill Marking (mm. 32-33).

For the tenor pannist it is important to know some basic properties in order to execute the trill properly. One of the most important rules is that all trills begin on the upper note,⁸⁷ this means that in before the principal note (C#5) is played, the diatonic D5 pitch must be played first. The two vertical dots above the trill symbol indicates that the trill begins on the upper note.⁸⁸ Regarding the duration of the trill is more given to interpretation. The trill symbols are used interchangeably to indicate a long or a short

⁸⁷ Johann Sebastian Bach, *Two-Part Inventions*, ed. by Willard A. Palmer (Van Nuys, CA: Alfred Publishing, 1991), 6.

⁸⁸ J.S. Bach, *Sechs Sonaten und Partiten für Violine solo BWV 1001-1006*, ed. Klaus Rönnaun and Wolfgang Schneiderhan (Munich: G. Henke Verlag, 1987), 68.

trill, trills on longer notes may consume the entire value of the note or may stop on any beat for fraction of the beat.⁸⁹

There are some “music purists” that may take great offense for such a performance as Adam Grisé’s arrangement of Bach’s Sarabande and Double, and they could build a tall case of the offenses made. In this arrangement the solo has been transformed to a trio, using instruments created centuries after the death of the composer, moving pitches out of their intended register, extending note values, and even adding notes that were not there in the original text. These arguments look valid if one is aimed to create, to the best of their ability, the most authentic version of Bach’s work. However, this cannot be achieved in its fullest sense since we are not living in a German Baroque era society of the court Anhalt-Cöthen. Instead, with this arrangement, like many others, Grisé has given the opportunity for steel pannists to expand their repertoire and explore the capability of their instruments.

In regards to the importance of such arrangements to the future of steel pan repertoire, Grisé explains:

I believe more repertoire of all types is a nearly universal benefit to the art form due to the steel pan instrument family’s relatively recent emergence. I’m a classically-trained musician and while I don’t think artists such as J.S. Bach hold or deserve any more musical/cultural supremacy over the artists of our own time, I do think there are things we can learn and draw from the thoughtful artists of the past. I suppose I might hope that this arrangement could inspire future artists to think about the ingenious ways Bach assembled multi-voiced textures.⁹⁰

⁸⁹ Johann Sebastian Bach, *Two-Part Inventions*, ed. by Willard A. Palmer (Van Nuys, CA: Alfred Publishing, 1991), 6.

⁹⁰ Adam Grisé, e-mail message to author, February 25, 2019.

Adam Grisé's arrangement of Bach's Partita No. 1 in B Minor is an excellent example of how steel pan chamber music not only has a place in steel pan repertoire but is a contributor to the advancement of steel pan music.

CHAPTER IV – ARRANGEMENT ANALYSIS OF FRÉDÉRIC CHOPIN’S
PRELUDE NO. 4 IN E MINOR FROM 24 PRELUDES (OP. 28) FOR STEEL PAN
TRIO

Frédéric Chopin is regarded as one of the most prolific piano composers of the 19th century and his repertoire have been performed in numerous settings outside of its intended instrument. Like the Bach arrangement in the previous chapter, we are presented with an arrangement of a solo work for steel pan chamber ensemble, specifically Chopin’s *Prelude No. 4 in E Minor* from his *24 Preludes* (Op. 28.). In this adaptation, arranger Chris Tanner has reorganized the piano solo to accommodate a quartet for solo pan of either extended tenor (wider range than standard tenor) or double tenor, double seconds, cello, and bass pans. Though the prelude is only 25 measures long there is a number of interesting changes made in the arrangement, which makes this an important subject in the understanding of steel pan chamber music properties.

Chopin’s compositions were largely for his own instrument, the piano, in addition to a few large works like his three piano sonatas and two piano concertos.⁹¹ His *24 Preludes* (Op. 28), which contains his *Prelude No. 4 in E Minor*, were composed in 1838-39 during a trip to the Spanish island of Majorca. They are the first preludes to be presented as a cycle of self-contained pieces, where each can stand alone while at the same time contributing to a single overriding whole, a ‘cycle’ enriched by the complementary generic characters of its components and integrated by the tonal logic of

⁹¹ Craig Wright, Brian Simms, and William Alves, *Music History: Eastern Kentucky University MUS 371*, (Mason, OH: Thomson Wadsworth, 2006), 499.

their ordering.⁹² The Prelude in E Minor belongs to the category of elegiac preludes: it moves in dark, even sombre colours.⁹³ It proceeds at a slow tempo, is extremely succinct, and adheres to a muted dynamic.⁹⁴ This prelude's somber impact is so defined that even Chopin requested that this piece be played at his funeral.⁹⁵ This seems to not fit the jovial sounding nature of the steel pan, but like all instruments it is important to explore all emotions and settings that are offered in music. With such a short, somber piece as Prelude No. 4 in E Minor, one has to imagine that there would be little difference between Chris Tanner's arrangement and the original. Surprisingly that was not the case.

Overall, Tanner chose to arrange Chopin's Prelude No 4 in E minor for steel pan quartet "simply because it is beautiful"⁹⁶ and because of such arrangements like this steel pannists can have the opportunity to perform the music of Frédéric Chopin.

Unfortunately, Dr. Tanner does not recall the specific edition of Chopin's *24 Preludes*. Therefore, I decided to use the Breitkopf & Härtel 1839 publication of the work and compare it to the 1996 Panyard publication of the arrangement.

The Tanner arrangement of Chopin's Prelude No. 4 in E Minor is organized for steel pan quartet to accommodate the range of the piano used in the original composition. The solo voice, designated for the melody in the treble clef of the original, is arranged for either extended tenor or double tenor pans. An extended tenor pan would be needed since

⁹² Kornel Michałowski, and Jim Samson, "Chopin, Fryderyk Franciszek," *Grove Music Online*, accessed January 8, 2019, <http://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000051099>.

⁹³ Mieczysław Tomaszewski, "Prelude in E Minor, Op. 28, No. 4," Fryderyk Chopin - Information Centre - Chopin's Life, accessed January 8, 2019, <http://en.chopin.nifc.pl/chopin/composition/detail/id/197>.

⁹⁴ Ibid.

⁹⁵ Fred Yu, "Music Analysis: Preludes," Chopin : Complete Music Analysis- Preludes, accessed January 8, 2019, <http://www.ourchopin.com/analysis/prelude0108.html>.

⁹⁶ Chris Tanner, e-mail message to author, January 21, 2019.

the lowest note of the melody (B3) goes beyond the range of a typical tenor pan of C4 to G6.⁹⁷ The remaining three voices perform the chord accompaniment to the melody, or in the case of the original work all the notes that fall in the bass clef. This would explain why the double second, typically in treble clef, has been arranged in bass clef. With the steel pan quartet arrangement there have been several changes to the original piano work.

From observing the two works there have been a number of subtractions in the Tanner arrangement. In Chopin's piano prelude there is a tempo marking of *Largo* at the beginning of the piece. This however has been removed in the arrangement and has not been replaced by a similar tempo marking. Instead an *espressivo* marking, found between the clefs in the first measure of the original piece, has been moved above the treble clef where the primary tempo marking is found. This could be an issue because if the pannists are not aware of the original tempo marking they could perform the work faster or slower than intended, greatly affecting the overall mood of the piece. Another subtraction from the original piece can be found in measure 16 where the tempo marking *stretto* (faster pace) has been omitted in the arrangement. From this omission it would appear that the arrangement has lost an important tempo factor in the prelude, however, one could argue that moving the tempo between four performers, without losing stability, could be too great a challenge depending on the musical skill of the performers. For the sake of consistency, Dr. Tanner has also removed the term *smorzano* (shortened as *smorz.*), found in measure 21, which indicates that the tempo now slows down.

Another omission in the arrangement is the piano pedal markings found in the bass clef of measures 17 and 18. It is understandable to remove these markings since

⁹⁷ Pichary, *Results of the Steel Pan Survey*, 804.

unlike a concert piano, there are no pedals to sustain the sound of the pans. One could however sustain the pitch by extending and rolling the duration of the note in order to accommodate the pedal markings. There is also an absence of phrase markings and slur lines from the original work. One could argue that the arrangement removed the phrase markings and slur lines due to such markings are not common in steel pan repertoire. Controlling the resonance of a steel pan is limited to either dampening by hand or preparing the pitch cells with a damper, but in terms of pedal dampening such technology does not exist for the steel pan. One could change their articulation of the notes in question to mimic a slurred phrase but again the resonance of a steel pan is difficult to control. There is another alteration in dynamics in measure 13 in the solo voice where the crescendo in the original work has been omitted. Later editions not only have this crescendo in this measure but include a decrescendo for the final beat. The particular edition that Dr. Tanner used as reference for his arrangement may have not contained these dynamic markings, though this is only speculation.

There are also several additions made in the arrangement. One particular set of additions made in the Tanner arrangement of the prelude are the dynamics. In the first measure of the arrangement, Tanner has added *piano* dynamic markings on all the playing voices (solo/double seconds/cello), a marking that is absent in the Breitkopf & Härtel 1839 edition. However, look at later editions of the work, the piano dynamic is present. The arrangement has also added a decrescendo at measure 23, one that is not present in either the Breitkopf & Härtel 1839 or in later editions. Since the measure contains only half notes with no roll markings, the performers will have to only strike the note and let the sound naturally decay. The Tanner arrangement, in terms of the notes on

the page, held relatively true to that of Chopin; however, several pitch displacements were made.

Unlike the displaced pitches in the Bach arrangement, there are no changes in terms of register placement. There are however, several enharmonic pitch displacements in the arrangement of Chopin's Prelude. There are three examples of enharmonic displacements made in the prelude arrangement (mm. 2-3/14-15/23). In the first example (mm. 2-3), the double seconds, performing the top dyad of the chord in the bass clef, has a D#4 in the 3rd and 4th beats of eighth notes instead of the Eb4 in the original text (Musical Example 13).



Musical Example 13 Enharmonic Pitch Displacement in Double Seconds (mm. 2-3).

This enharmonic spelling continues into the 1st and 2nd beats of the next measure before returning to the pitch spelling of the original work. This example of enharmonic spelling is similar to that of measures 14-15 in the double seconds (D#4/G#3 instead of Eb3/Ab3) and in the bass pans of measure 23 (A#2 instead of Bb2). The lack of standardization among pans is manifest in several ways, the most significant of which involves the pitch layout, or the arrangement of pitch areas on the face.⁹⁸ Unlike a keyboard instrument such as the piano, steel pans of even the same voice can have a different arrangement of pitches along with the unfamiliarity of the instrument. Due to this issue, many steel pan manufacturers label the pitch cells in the face of the instrument. With this in mind it could be possible that the arranger was enharmonically spelling the

⁹⁸ Tanner, *The Steel Band Game Plan*, 21.

notes to accommodate the label on the instrument. Observing the entire arrangement of the Prelude, neither the double seconds or the bass pans revert their enharmonically spelled pitches to that of the original spelling.

The one series of pitch displacements in the prelude concerns issues of instrument range, though the pitch itself has not been displaced by register. In measure 9, the dyads in the double seconds shift to the cello pans and continue through measure 13 leaving the double seconds with only a single line to perform. This shift in dyads occurs again in measure 16 and measures 18-22. The reason for such a shift between the two voices is due to the middle note of the chord being out of range for the double seconds (F#3 to C#6).⁹⁹ An example of this certain kind of pitch displacement can be seen in the excerpt below (Musical Example 14). The only other enharmonic pitch displacement in the Prelude arrangement is in measure 23 of the bass pans where the original Bb2 has been changed to A#2.

⁹⁹ Pichary, *Results of the Steel Pan Survey*, 804.



Musical Example 14 Instrument Shift Pitch Displacement in Double Seconds/Cello (mm. 18-20).

There are two examples of the addition and subtraction of accidental markings, in the solo voice. In measure 12, the natural accidental is not found in the D5 pitch of beat 4 as it is in the original piano work and other later editions. Though there is a D#4 marked in the previous beat, the absence of the natural accidental in beat 4 is common since it is generally understood that any accidental which occurs is understood to affect only the note before which it is placed.¹⁰⁰ This rule of course does not include the accidentals in the key signature. In measure 18 there is a parenthetical accidental in beat 1 (D4), reminding the performer that this note has returned to its natural status.

With the aforementioned displacements in the arrangement there are a few pitch omissions. In the final two measures of the prelude (24-25) the bass clef of the original

¹⁰⁰ "Accidental," Oxford Reference, November 30, 2018, accessed January 10, 2019, <http://www.oxfordreference.com/view/10.1093/acref/9780199578108.001.0001/acref-9780199578108-e-60>.

has two half notes of B1 followed by a whole note of E1. These pitches have been omitted in Tanner's arrangement of the prelude for the bass pans. The last pitch (E1) is beyond the range of the bass pans which are typically A1 to D3,¹⁰¹ however the B1 half notes in the previous measure are within range of standard six bass pans. It is also important to observe that this particular pitch is used in measure 17 when the bass pans perform an octave B1 and B2.

Although the displacements of the pitches in the arrangement have been either insignificant or at least aesthetic, there is however an example of additional pitches found in the cello voice. In the last two beats of measure 11 there are a set of dyads spelled as C3 and E3. According to the Breitkopf & Härtel 1839 version the notes in question should remain the B2 and D#3 as the previous set of dyads are written. Upon this observation one would assume that this difference in dyads was the result of some sort of typographic error. However, observing later editions of the Prelude, the C3/E3 pitches are present. This likely indicates that Dr. Tanner used a later edition as a reference in arranging compared to the Breitkopf & Härtel 1839 publication used in this analysis. The excerpts of both versions of the Prelude can be seen in the examples below (Musical Example 15).

¹⁰¹ Pichary, *Results of the Steel Pan Survey*, 804.



Musical Example 15 Pitch Discrepancy in Cello (mm. 10-12).

In the case of rhythmic alterations in the steel pan arrangement of the Prelude, there are few occurrences of any changes. In measures 17 and 18, what were eighth notes in the bass line have been expanded to quarter notes. Since there is no indication of sustaining the expanded note through a roll and that bass pans are a resonant instrument it is understandable that the reason to expand these notes are to give these bass notes more presence on the page itself.

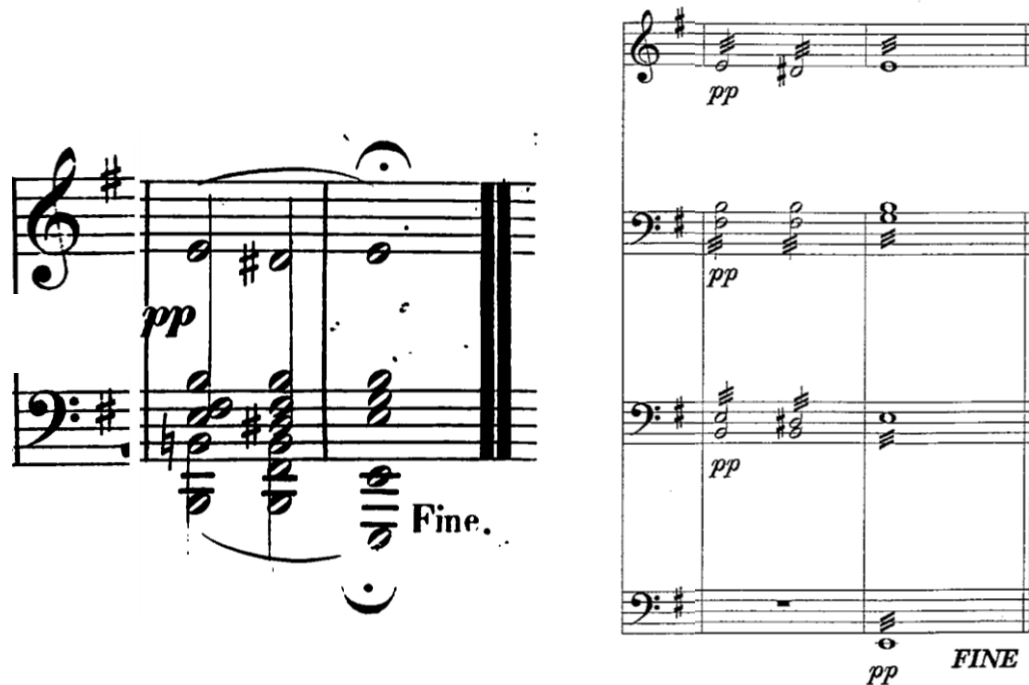
Another rhythmic alteration in the Tanner arrangement does not concern with changing the value of a note but the rewriting of a set of rhythms. In the original piano

piece, many of the chords in the bass clef have been condensed from eighth notes to half notes with a single slash and four dots above the note head. This notation, known as a *tremolo*, is one of a number of abbreviations used in musical notation, in the case of repeated notes, which can be marked as individuals or marked as chords.¹⁰² However, tremolos are not common in steel pan literature, which is most likely why these symbols are not present in the double seconds and cello music in the arrangement. An example of the contrast between this particular kind of writing can be seen in the excerpts below (Musical Example 16).

Musical Example 16 Rhythmic Alteration in Double Seconds/Cello (mm. 6-8).

¹⁰² Music Dictionary: Musical Symbols," Dolmetsch Online - Music Theory Online Contents, November 29, 2018, accessed January 11, 2019, <https://www.dolmetsch.com/musicalsymbols.htm>.

In the last two measures of the arrangement all the notes performed by the four voices are sustained by rolls added by the arranger. The rolls (Musical Example 17) are marked with tremolos (three slashes) on the stem of the notes.



Musical Example 17 Added Rolls in Arrangement (mm. 24-25).

In drum or timpani parts, notes with their stems crossed diagonally by two or, more commonly three, lines usually indicate a roll.¹⁰³ It is important to realize that not all rolls are performed the same. In fact, it is generally true that all of the pitch areas on the double second pan require a faster roll speed than any of the pitch areas on the bass

¹⁰³Music Dictionary: Musical Symbols," Dolmetsch Online - Music Theory Online Contents, November 29, 2018, accessed January 11, 2019, <https://www.dolmetsch.com/musicalsymbols.htm>.

pans.¹⁰⁴ With this in mind, it is up to the performers to decide which interpretation of roll speed, attack, and release is appropriate for the conclusion of this work.

In both versions of the prelude there are two grace notes found in the solo pan voice, one in measure 11 and the other in measure 19. Both contain the same pitches and rhythmic durations and both are accompanied by the same chords in the double seconds and cello voices. With such ornaments as grace notes it is important for the performer to be aware of the approach to the proper execution. These particular grace notes are known specifically as *acciaccatura* or ‘crushed note,’ during its use in the 19th century, *acciaccatura* came to mean quick single grace notes, usually a major 2nd above the main note.¹⁰⁵ Since the grace note is a major 2nd (B4) above the primary A4 in both examples it is safe to assume that this is the particular kind of ornament Chopin had written. In regards to the proper space between the grace and primary note the performer should refer to what would best fit the mood of the prelude. The same should be adhered in relation to touch though the grace note should use less velocity in order not to overpower the primary note. Certain details of spatial awareness and articulation is important to create the singing quality of Chopin’s melody as does the execution of another ornament in the Prelude.

¹⁰⁴ Tanner, *The Steel Band Game Plan*, 71.

¹⁰⁵ Robert E. Seletsky, "Acciaccatura (It.; Fr. Pincé étouffé; Ger. Zusammenschlag)," Grove Music, December 05, 2017, accessed January 20, 2019, <http://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000000101>.

There are two symbols found in measure 16 in the solo voice that are particularly uncommon in steel pan literature (Musical Example 18). The first is a symbol resembling an inverted 'S' laying horizontally as seen in the excerpt below. This symbol is known as a *turn*, a type of ornament which the main note alternates with its two auxiliaries a step above and below.¹⁰⁶ Similar to that of a grace note, the turn is performed before the primary note (G5 in beat 3) in a relatively faster speed (like 16 notes). However, unlike the typical grace note, the turn's principal note is what's after the symbol as seen in the excerpt (A#4).

Musical Example 18 Comparing Turns (m. 16).

¹⁰⁶ "Turn," Grove Music, November 28, 2017, accessed January 20, 2019, <http://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000048838>.

The second symbol, found just below the turn symbol is a double sharp (resembling an 'x'), indicating a note rises up two half steps. The accidental appears to affect the primary note in beat 3, however this accidental is not for the primary note but to the ornamental pitch G4 in the turn. In relation to accidentals in ornaments the convention is that if the inflection applies to a note lying above the principal note then the accidental is written above the sign for the ornament, but if the inflected auxiliary note lies below the principal note, the accidental sign is placed below the sign for the ornament.¹⁰⁷ Since the double sharp accidental is found below the turn, the lowest auxiliary note G4 is raised two half steps to Gx4. What is surprising is that in the Breitkopf & Härtel 1839 edition there is a turn symbol in measure 16 but no double sharp accidental below. Several later publications of the Prelude contain the accidental and even have the turn written out in standard notation. However, it is written, Dr. Tanner sought it best to keep these ornaments in the arrangement to better suit the musical potential that Chopin has given in this prelude.

The Prelude No. 4 in E Minor is one of Frédéric Chopin's most well-known work, though comparatively simple in its composition the musical capability is challenging for the solo pianist let alone a quartet of steel pannists. In regards to the difficulty of performing the work in the steel pan quartet setting, Dr. Chris Tanner he stated that, "In my opinion, the challenge comes in the performance. It is quite difficult for four players (or three, really, as the bass pan part is very minimal) to perform the piece as a single person might, with rubato tempo and minute nuanced fluctuations in dynamic."¹⁰⁸

¹⁰⁷ Brian Blood, "Music Theory Online: Ornamentation," Dolmetsch Online - Music Theory Online Contents, October 24, 2018, accessed January 11, 2019, <https://www.dolmetsch.com/musictheory23.htm#accidentals>.

¹⁰⁸ Chris Tanner, e-mail message to author, January 21, 2019.

Dr. Tanner concluded as to why works such as this arrangement are important to steel pan repertoire:

I am interested in the growth and development of the steel band idiom, and as such I value any repertoire that advances that cause. Composers and arrangers need a market to drive their need and desire for creating new works, and so it is incumbent on steel band leaders and directors to program interesting and diverse repertoire that is of high quality, thereby providing composers and arrangers with an impetus to create.¹⁰⁹

Such arrangements are necessary in order to advance the not only the repertoire of steel pan chamber music but of the catalogue of these young instruments themselves.

¹⁰⁹ Chris Tanner, e-mail message to author, January 21, 2019.

CHAPTER V – ARRANGEMENT ANALYSIS OF CLAUDE DEBUSSY’S FIRST ARABESQUE FROM DEUX ARABESQUES (L. 66) FOR STEEL PAN DUET

When the subject of late 19th century French music is presented the composer that comes to mind is Claude Debussy. His catalogue of diverse music contains some of the most memorable works in western art music. Arranger Jason Schreiber has taken Debussy’s piano solo First Arabesque from *Deux arabesques* (L. 66) for the adaptation of steel pan duo, specifically the double seconds and the quadraphonics pans. Throughout the analysis of the arrangement it is interesting how adjustments in rhythm, pitch, and staff placement have made this piece adaptable for two sets of pan instruments. This challenge of adapting such intricate music for only two instruments of limited range is an important point of discussion in the subject of steel pan chamber music.

Conceived during the early years of the French composer’s career, *Deux arabesques* is a two-movement piece written for solo piano between 1888-1890 and first published in 1891.¹¹⁰ The work was written at a time when the young Debussy was out of the Paris Conservatory and establishing himself as a composer. An arabesque, apparently introduced into Europe during the Morrish conquest of Spain, first applied to architecture and painting to describe an ornamental frieze or border, whose elaborations, foliate and curlicued have their counterparts in music in ornamentation and complex figuration.¹¹¹

¹¹⁰ Marcel Dietschy, *A Portrait of Claude Debussy*, ed. William Ashbrook and Margaret G. Cobb (Oxford: Clarendon Press, 1990), 194.

¹¹¹ Maurice Brown and Kenneth Hamilton, "Arabesque(i) (Ger. Arabeske)," Grove Music Online, November 27, 2017, accessed February 4, 2019, <http://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000001137>.

The second of the two (arabesques) is the more straightforward and completely traditional, the first (arabesque) slightly adumbrates the effects eventually developed in a more atmospheric style.¹¹²

In a correspondence with the arranger Jason Schreiber, he explained the reason for choosing the First Arabesque as a suitable piece for pan duet:

While I was in college, I was asked by my friend/colleague to arrange this piece for the two of us to perform as a duet for a recital of his. He wanted to play double seconds and he had me decide what second instrument would be capable of combining with the double seconds to best achieve the original intent of the work for piano... Choosing the quadrophonic was partly because of the wide range of the quadrophonic, but also because I have had a lot of experience on that instrument. It should be noted that the skirt length of the double second and quadrophonic is usually very similar and thus timbre and tone of the instrument (depending on the tuning style) can blend well when sweeping arpeggios transfer from one instrument to the other.¹¹³

When asked if there was a particular score of the original work he used as reference for the arrangement, Schreiber replied that he does not recall the specific publication of the piece. The author decided to refer to one of the earliest publications of *Deux arabesques* from 1891 by Durand et Schoenewerk. Justin Schreiber's arrangement was published by Engine Room Publishing in 2009.

One of the most conspicuous omission in the arrangement is the dynamics. In the Schreiber arrangement, the entire score is deprived of any markings, symbols, or indications of dynamics. This absence maybe due to the particular reference Schreiber used in making the arrangement or that the dynamics were overlooked during the writing.

¹¹² Oscar Thompson, *Debussy: Man and Artist*, (New York: Dodd, Mead & Company, 1937), 247.

¹¹³ Jason Schreiber, Facebook message to author, January 21, 2019.

Since there are no dynamic markings in the arrangement it is suggested that the performers of this adaptation take note of this absence and to look at the original work for guidance in dynamics. Also absent from the arrangement are several tempo markings.

Though there is an initial tempo marking in the beginning of the Arabesque, any other markings (*a tempo*, *ritardando*, *resoluto*, etc.) from the original are not found in the Schreiber adaptation. This omission may be due to the difficulty to adhere to the rapid change in tempo between the performers of the arrangement. However, it would be beneficial for the accuracy of the musical intention if the performers became familiar with the tempo markings found in the original work. There is also a discrepancy with the primary tempo and expression marking at the beginning of the Arabesque between the original and the arrangement. In Schreiber's duet the tempo marking above the first measure is *Andante tres expressif* (very expressive) but in the Durand et Schoenewerk 1891 publication the primary tempo marking is *Andantino con moto* (with movement). Though both versions state an animated expression andantino is a tempo and mood designation that nowadays is considered a little faster than andante.¹¹⁴ Most of the other publications of the Arabesque label the tempo as *Andantino con moto*, so one would conclude that the edition Schreiber used had stated otherwise.

Comparing the two versions of the Arabesque there are several discrepancies regarding articulation. In measures 16, 42, 58, 75, 85, and 106 the legato (—) markings found in both double seconds and quadrophonic voices are absent. Though the legato markings have been removed, there are however, some added articulation markings in

¹¹⁴ David Fallows, "Andantino (It., Diminutive of Andante, but Current Only in Musical Contexts)," Grove Music Online, November 27, 2017, accessed January 23, 2019, <http://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000000855>.

measures 67, 68, and 106. In regards to articulation for a steel pan, one could slow the velocity of their stroke in order to create a legato sound. Contrary to legato articulation, a pan player can add more velocity to their stroke in order to create a more staccato attack. Regardless of the initial attack of the note performed, the pan's resonance cannot be controlled without dampening with a hand or some means of prepared dampener instead of the original intended string dampener Debussy used in writing the original work.

Since the work has been adapted to two steel pans of varying range, there had to be an alteration in clefs, specifically the bass clef. The instruments have basically been divided into the two staves of the piano, the double seconds retaining the treble clef and the quadrophonic pans holding the lower treble/bass clef. The quadrophonics, with a range of B2 to Bb5,¹¹⁵ are in a higher range than would best suit a typical bass clef. Because of this discrepancy the arranger has altered the bass clef to a treble clef marked down an octave. This particular clef indicates that the notes are actually an octave lower than written.

¹¹⁵ Pichary, *Results of the Steel Pan Survey*, 804.

With the overall changes addressed we can now analyze the pitch, rhythm, and other detailed changes of Debussy's First Arabesque. In a correspondence with arranger Jason Schreiber, he discussed what was the most difficult challenge of adapting this work for pan duet:

The most difficult challenge when arranging this piece (as well as with a lot of Debussy) is how to deal with technical and range limitations when trying to achieve the complete shape of Debussy's sweeping arpeggios... We wanted to be as faithful as possible to the original intent and thus I just had to make some judgement calls on if/when I would need to raise or drop a melodic arpeggio a complete octave or just the first note.¹¹⁶

With such challenges at hand the changes made in the arrangement are apparent when compared to the original work. Throughout the arrangement of the Arabesque there are displacements and alterations of notes, not only by pitch or rhythm but of staff designation. In the first two measures of the original piano music, the triplets in beats 1 and 4 are in the lower treble staff. In the arrangement these notes have been moved to the upper treble staff of the double seconds. The most plausible explanation for this shift is to keep the melodic phrase of the first two measures to one instrument even though the range of the notes are well within both voices. This particular pattern of displacement is found throughout this piece such as in measures 17, 18, 26, 28, 31, 33, 71, 72, 87, and 88.

¹¹⁶ Jason Schreiber, Facebook message to author, January 21, 2019.

Another example of altering notes to other staff designations comes from measures 34-36 as seen in the excerpt below (Musical Example 19).



Musical Example 19 Pitch Displacement Between Staves (mm. 34-36).

In this excerpt both voices have exchanged notes from their own particular staff content. In measure 34, the eighth note triples originally found in the treble staff have been moved to the quadrophonics voice in the arrangement. The two half notes found in both the treble (E4) and bass (F#3) staves have been switched to their opposing areas (the E4 has also been reduced to a quarter note). From the quadrophonics dyads in measures 35-36 the higher notes were originally from the first partial of the triplets in the original treble staff. The first partial notes in the original treble staff have been replaced by the quarter note pitches a third above the triplets (their rhythmic duration has been altered to accommodate their new settings). What is interesting about these particular shifts is

figuring out why these particular notes were exchanged between the voices in the arrangement. When looking at the Schreiber arrangement, the triplet pattern has been lowered an octave from its original register. Because of this shift a few notes in the triplet pattern are now below range of a standard double seconds range of F#3 to C#6.¹¹⁷ From the shifting of notes between staves there are many examples of rhythmic reduction and expansion of pitches in the Schreiber arrangement.

Most of the rhythmic alterations made in the arrangement can be for three probable reasons, rhythmic consistency, harmonic support, and technical practicability. In the case of rhythmic consistency there are several examples of altered notes in comparison to the original work. In measure 3, the bass staff has two half notes on beat 1 (D#3) and beat 3 (C#3) and a tied eighth/quarter notes on the third partial of beat 1 (C#4) and beat 3 (E4). These notes in the pan arrangement have all been reduced to eighth notes in order to keep the triplet pattern in the quadrophonics consistent. The triplets from the treble staff in the original has been moved to the quadrophonics voice and in order to keep the rhythmic consistency in beats 1 and 3 as well as the tied eighth/quarter notes in the third partial of beat 2 (C#5) and beat 4 (A4) have been reduced to eighth notes. A similar pattern in the following measure, as well as the aforementioned measure, can be seen in the excerpt below (Musical Example 20).

¹¹⁷ Pichary, *Results of the Steel Pan Survey*, 804.



Musical Example 20 Rhythmic Alteration in Quadrophonics (mm. 3-4).

The other example of rhythmic alteration in the Schreiber arrangement pertains to expanding notes for reinforcing harmonic support. In measure 95 of the Durand et Schoenewerk 1891 publication, the treble staff has two whole notes on the same note (A4). In the double second voice of the pan arrangement one of the whole notes has been moved up an octave and both notes have been extended to two tied whole notes expanding into the next measure. Due to this expansion of the whole notes the double seconds gives a harmonic support of the A pentatonic melody performed in the quadrophonics. What was curious in this example was the writing of the two whole notes in the original since the value of the notes on the same pitch exceeds the measure. It looks as if Debussy wrote the two whole notes as another way to write a double whole note, to

carry over to the next measure. This theory can be supported by the absence of the whole note in the next measure (Musical Example 21).



Musical Example 21 Rhythmic Alteration in Double Seconds (mm. 95-98).

Looking at other editions of the work shows similar writings, some with just one whole note. Regardless, in the case for the duet, the arranger thought it best for the double seconds to extend these pitches in order to support the melody in the quadrophonics. What is curious is that in the following two measures (97-98), where the treble staff holds a similar role in supporting the melody, in the arrangement the pitches do not sustain as long as originally written, or in the case of measure 98, none at all. Other editions of the work follow the same rhythmic duration for these pitches, though the arrangement has reduced or absent notes. One could argue that the arranger did so to

give the quadrophonics more exposure to complete the phrase before the final eight measures of the piece. Further discussion of missing pitches in this arrangement will continue later in this chapter.

Another explanation of rhythmic alteration in the pan arrangement comes from technical practicability of performing the work. In measure 70, there is a small reduction of one note in the quadrophonics music. Where in the original the pitch (G#4) is a whole note long, in the arrangement the note has been reduced one eighth note to a tied dotted half/eighth (Musical Example 22).

Musical Example 22 Rhythmic Alteration in Quadrophonics (mm.69-71).

The reason for such a slight reduction of a pitch has to do with the other note of the dyad and the succeeding measure. Pan players typically only have two mallets at the ready and with that a limited capability of playing a number of simultaneous notes. This

and the range of motion a pannist, especially a four-pan quadrophonic (Figure 13), can make executing notes in proper time with good tone a difficult task. With the G#4 reduced an eighth note, the player has time to successfully play not only the last eighth note in measure 70 (D#4) but the following C#4 downbeat in measure 71.

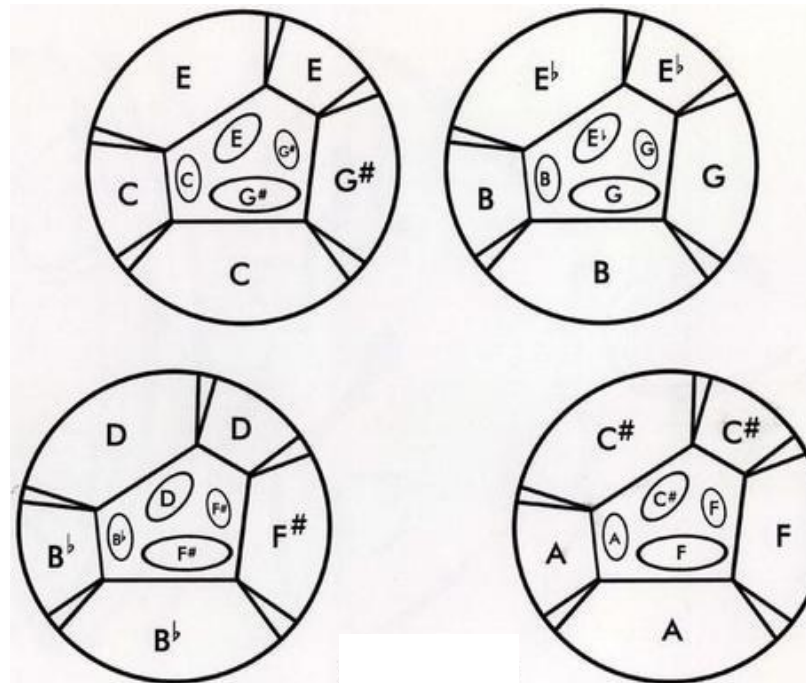


Figure 13. *Quadrophonics.*

This explanation can change however if one notices there is no indication to roll the dyads in measure 70. The entire arrangement has no roll markings for either voices, but with rhythmic alterations made in the examples measures 71 and 95-96, inserting a roll to sustain the tones would be proper. Unfortunately, not all published steel band music indicates where rolls are to be used, in a band setting it is important for the director to study the score prior to rehearsal, using his or her own discretion to determine where to

use rolls.¹¹⁸ Likewise to a chamber ensemble, the performers need to be aware of which notes need to be sustained by rolls if needed. Listening to recordings of the original and if available, other arrangements, would be sufficient in realizing which notes need to be sustained by rolls. Along with the rhythmic alterations of the Schreiber there are several of examples of pitch displacement, not only changes in register and additional pitches but the omission of several notes from the original music.

Similar to the previously discussed music in the dissertation, most of the pitch displacement are due to the limited range of the particular instrument chosen by the arranger. An example of such pitch register displacement is in measures 6-13 in the quadrophonics voice. In each downbeat eighth note of the aforementioned measures, the pitch has been raised an octave higher than originally written. The pitches in the original music (E2/F#2/G#2/A2/A#2) are below the range of the quadrophonics (B2-Bb5)¹¹⁹ and thus had to be raised to accommodate the instrument. Other examples of lower register displacement in the arrangement can be found in measures 46-48, 51-52, 61-65, 76-83, and 98-102.

It should be noted that there are also instances of pitch register displacement that reach beyond the typical octave as seen in previous examples. In the quadrophonics voice of measures 30, 31, and 33, the downbeat eighth note of each measure (G#1 in measure 30, F#1 in measures 31 and 33) have been raised two octaves higher than originally written in order to accommodate the instrument's range. There is even a pitch in the downbeat eighth note of measure 37 (E1) that has been raised three octaves higher from the original. This was an interesting displacement since raising the pitch twice to E3

¹¹⁸ Tanner, *The Steel Band Game Plan*, 71-72.

¹¹⁹ Pichary, *Results of the Steel Pan Survey*, 804.

would have been sufficiently within range, one could argue that bringing the pitch up to E4 was to accommodate the previous pitch (B4) in beat 4 of measure 36. Similar examples of other displacements beyond an octave can be found in measures 26, 50, 66, 103, and 107, all from the quadrophonics voice.

Compared to the raised displacements previously discussed, there are only a few examples of notes being lowered a register. In measures 99-100 (Musical Example 23), the eighth note triplet pattern in the double seconds voice has been lowered an octave from their original setting. For measure 99 the contents are lowered an octave due to the range of the pitches (F#6-F#5) are either out of range or in the higher register of the double seconds (F#3-C#6)¹²⁰. For the sake of consistency of the melodic contour the notes of the following measure are also lowered an octave.

¹²⁰ Pichary, *Results of the Steel Pan Survey*, 804.



Musical Example 23 Pitch Displacement in Double Seconds (mm. 99-100).

A similar example of lowering the pitches of the original work can be seen in measures 105-106 of both double seconds and quadrophonics voices. Both voices have pitches that either are either out of range or are in the higher, less resonant, register of their respected instruments. Another set of interesting pitch displacements within the Schreiber arrangement concern inverting dyads. In the quadrophonics voice there are several examples of pitch displacements by moving one pitch of the dyad above the other pitch, thus inverting the dyad. In measures 60-62 (Musical Example 24) the lower pitched notes of the bass clef have been moved up an octave and now has become the higher note in the dyad. This displacement is again due to the limited range of the quadrophonics compared to the concert piano. Similar occurrences of this displacement can be found in measures 44-46, 57-58, and 60-65.



Musical Example 24 Pitch Displacement in Quadrophonics (mm. 60-62).

As the Schreiber arrangement is abundant in displaced pitches there are also a series of pitches that were added to the work. Similar to the added pitches discussed in previous chapters, the additional pitches are added to either give harmonic reinforcement to the music or to aid in some linear function of the piece. The majority of added pitches in this arrangement offer more harmonic reinforcement, such as seen in the first example of measure 26 (Musical example 25).



Musical Example 25 Pitch Addition in Double Seconds/Quadrophonics (mm. 26-27).

In this measure there are two added pitches, A3 in the double seconds voice (added as a whole note) and A2 in the quadrophonics (added in the 1st and 2nd partial of the first eighth note triplet). These added pitches in the double seconds are reinforcing the sustained whole note C#4 while the added pitches in the quadrophonics are likewise giving support to the octave A#3 in the upper dyad of the triplet. The same dyads in the quadrophonics are also added in the following measure in whole note value. Other examples of harmonically supportive added pitches can be found in measures 28, 43, 45, 49, 57, 59, 61, 64-66, 71-72, and 97.

Another example of added pitches refers to a more linear function that the prior discussed pitches. In measure 92 of the double seconds there is a half note added in the

third beat (E4). Though the pitch is relative to the A major arpeggio in the quadrophonics voice, the half note acts as a passing tone to the previous (F#4) and succeeding (D4) half notes. Similar added passing tones in this arrangement includes measures 44 and 60.

Along with the added pitches in the Schreiber arrangement there were also pitches that were omitted from the original work. Omitted pitches in the arrangement may be attributed to several factors in relation to the steel pans: notes that are out of range or notes that make performing the work impractical to the instrument. There is also a possibility that the notes omitted were a result of the edition that the arranger used as a reference, though as stated earlier in this chapter the exact edition used is not known. An example of omitted pitches in the arrangement can be found in measure 48 in the quadrophonics voice. In the original bass staff, there are two sets of octaves played, a half note (A1/A2) on beat 2 and a quarter note (D2/D3) on beat 4 (Musical Example 26).

Musical Example 26 Pitch Omission in Quadrophonics (mm. 47-49).

What is omitted in the pan arrangement are the lower note of the A dyad and the higher note of the D dyad. It should be noted that the remaining pitches have been raised an octave from their original register. The first omitted pitch (A1) is out of range for the quadrophonics (B2-Bb5)¹²¹ even when the notes are raised in register. Similar instances of pitch omission due to range can be found in measures 45, 49, and 50. What is interesting about measure 48 is that in the omitted upper D pitch is well within the range of the quadrophonics. Perhaps the pitch was omitted to be consistent to the omitted A octaves in the measure, but why didn't the lower D pitch also be omitted as did the lower A pitch? If we observe the contour of the notes before and after measure 48, the higher D would have abruptly changed the lower pitch direction of the notes giving distraction to the triplet melody performed in the double seconds.

Aside from range issues causing pitch omission, adapting music that can be played with 10 fingers for two pairs of mallets can bring issues of performing all notes written. An example of pitch omission due to practicality can be found in the double seconds voice of measures 61 and 62. In measure 61, the quarter note (B3) in beat 1 and the quarter note (A3) in beat 4 have been removed from the original piece. In the following measure, the dotted half note (B3) has also been omitted in the arrangement.

¹²¹ Pichary, *Results of the Steel Pan Survey*, 804.

All of these notes are well within the range of the double seconds (F#3-C#6)¹²² so the issue is not about range but the ability to play the notes in time.

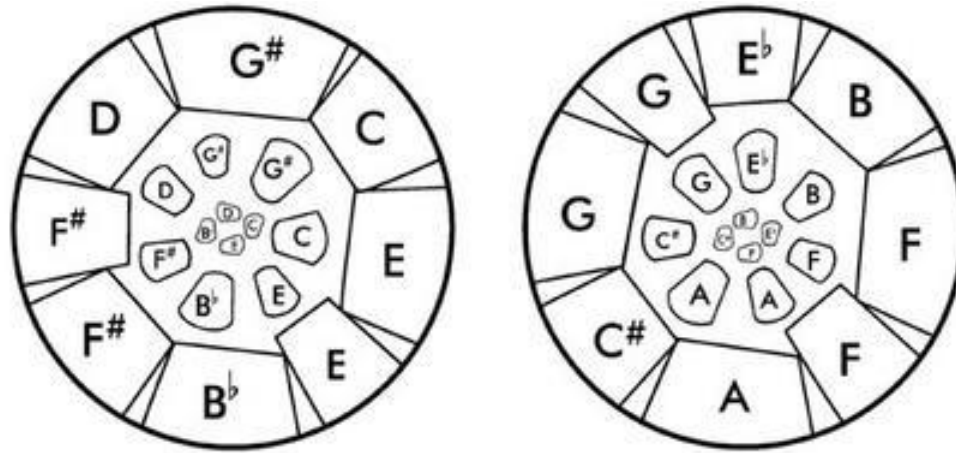


Figure 14. *Double Seconds*.

Observing the layout of the double seconds (Figure 14), traversing from pitch to pitch can be a difficult task, especially when performing faster rhythms. In the case of the measures in question, playing a double stop (two notes at the same time) with an eighth note triplet or a triad with only two mallets can be very difficult to play in time. There are however some notes that, instead of being omitted, have been transferred to the other instrument. The A3 removed in the double second voice in beat 4 of measure 61 can be found in the quadrophonics voice in the same beat. Similar instances can be seen in measures 45, 49, 63, and 65.

There are a few omitted notes in the arrangement that are not removed due to range or playing ability. In the double second voice of measure 98 the whole note (F#4)

¹²² Pichary, *Results of the Steel Pan Survey*, 804.

is not found in the arrangement as well as the quarter note (E4) downbeat of the following measure (Musical Example 27).



Musical Example 27 Pitch Omission in Double Seconds (mm. 97-99).

One could argue that the pitch was removed to give the triplet phrase in the quadrophonics more exposure. This argument can be supported by the note reduction of the double seconds previous measure (octave G#) from the original whole note to quarter notes. Regardless of the explanation an entire measure of music in the double seconds have been removed in the arrangement.

Another alteration to the original work regards the added ornamentation within the chords to the arrangement. Many chords in the *tempo rubato* section of the piece (measures 40-70) have been designated with an ornamentation beside the notes. This ornament symbol, resembling a vertical wavy line, is referring to an *arpeggio*. In an arpeggio the chord is not played simultaneously but in quick succession of its notes from

lowest to highest pitch¹²³. Though these ornamented symbols are not found in the Durand et Schoenewerk 1891 publication of the work (nor later editions) it is beneficial for the performers of the pan arrangement due to their performance limitations. The arpeggio symbols give the performers the ability to play the chords in proper time.

The Jason Schreiber's arrangement of Claude Debussy's *First Arabesque* has several changes made from the original work, but the intentions of keeping the music true to its original self can be seen in its adaptations. As with all arrangements of music we cannot reach the true zenith of authenticity of the original work, especially when adapting a solo work for two instruments that had not yet been invented during the composer's life. As for his reason for arranging this work for steel pan, Schreiber explains that "When I arrange music that is adapted from a different musical medium to be performed on the steel pan, my hope is that these arrangements further legitimize and validate the steel band art form as one that is capable of playing a wide variety of music, like other instruments."¹²⁴

This, in the opinion of the author of this dissertation, is exactly why arrangements such as made by Gris , Tanner, and Schreiber are important for the advancement of steel pan repertoire. If these instruments are able to thrive in the musical world they must explore the various genres that music has to offer. This purpose of steel pan chamber music is also the reason why the author of this dissertation has arranged a work of western art music to this ensemble style for the discussion of steel pan adaptability in the next chapter.

¹²³ Brian Blood, "Music Theory Online: Ornamentation," Dolmetsch Online- Music Theory Online Contents, October 24, 2018, accessed February 14, 2019, <https://www.dolmetsch.com/musictheory23.htm#arpeggio>.

¹²⁴ Jason Schreiber, Facebook message to author, January 21, 2019.

CHAPTER VI – ARRANGEMENT ANALYSIS OF WOLFGANG AMADEUS
MOZART’S SERENADE NO. 13 IN G (KV. 525), MVT. I ALLEGRO FOR STEEL
PAN QUARTET

The final analysis of the dissertation is a piece that I have arranged for steel pan chamber ensemble. The work chosen is considered to be of the most recognized pieces of western art music, Wolfgang Amadeus Mozart’s *Serenade No. 13 in G*, famously known as *Eine kleine Nactmusik* (A Little Night Music). The first movement of the Serenade, *Allegro*, was arranged steel pan quartet: two tenor pans performing the violin I and II parts respectively, double seconds performing viola, and the cello pans playing its namesake and double bass. The arrangement was premiered with myself and members of the Southern Mississippi Percussion Studio for a recital in Spring 2018 at The University of Southern Mississippi School of Music. From making this arrangement, I personally have learned many challenges that arise when adapting western art music to steel pan chamber setting. But such challenges need to be resolved if this style of music is to prosper in steel pan repertoire.

1787 was an eventful year for Mozart, with his opera *Don Giovanni* premiering in Prague (29 October)¹²⁵ and his father and mentor Leopold Mozart had passed away in May.¹²⁶ Composed at the final years of the composer’s life, *Eine kleine Nactmusik* K525 - ‘consisting of an allegro, romance, menuetto and trio, and finale’ [according to Mozart’s

¹²⁵ Cliff Eisen and Stanley Sadie, "Mozart (Johann Chrysostom) Wolfgang Amadeus," Grove Music Online, September 28, 2018, accessed February 5, 2019, <http://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-6002278233>.

¹²⁶ Eisen and Sadie, *Mozart (Johann Chrysostom) Wolfgang Amadeus*,.

thematic catalogue] - was completed on 10 August 1787.¹²⁷ The Serenade itself, has become a popular piece of classical music today, but its history is a bit clouded. The original orchestration of the piece is not quite certain, Mozart's Viennese serenades of the 1780's were generally scored for wind (K361/370a, 375, 388/384a); *Eine kleine Nactmusik K525* is ambiguous and may have been intended to be orchestral.¹²⁸ It can be played by a full string ensemble (orchestra) with basses doubling the cello line, or simply by four instruments of a string quartet.¹²⁹ Regardless of the orchestration, *Eine kleine Nachtmusik* has been performed in various ensembles of instruments and genres fortifying its influence of the musical world beyond the years of Mozart's life.

In making the arrangement of *Eine kleine Nachtmusik* I referenced the 1955 Bärenreiter-Verlag publication edited by Ernst F. Schmid. The arrangement, completed in 2018, is not published though submissions to publishing companies for the arrangement have been made since the time of writing this dissertation. I had decided to use only four pan instruments and forgo the use of bass pans in the cello/contrabass voice since I thought the additional bass would be unnecessary to double the same notes the cello pans were playing.

First overall alteration was the addition of roll markings to notes whose duration lasted longer than a quarter note. As stated in previous chapters rolls are needed in order to sustain notes of a certain length in percussion instruments. Since the established tempo is at *allegro* and the steel pans are a relatively resonant instrument I felt that it was only

¹²⁷ Herman Abert, *W.A. Mozart*, Translated by Stewart Spencer, Edited by Cliff Eisen (New Haven: Yale University Press, 2007), 1000.

¹²⁸ Hubert Unverricht and Cliff Eisen, "Serenade (Fr. Sérénade; Ger. Serenade, Ständchen; It. Serenada, Serenata)," Grove Music Online, December 05, 2017, , accessed February 5, 2019, <http://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000025454>.

¹²⁹ Wright, Simms, and William Alves, *Music History*, 428.

necessary to roll pitches longer than a quarter note. All the marked rolls are done in the style commonly known to percussionists as three diagonal slashes on the stem of the note. Though I did not specify the particular articulation and release of the rolls in preparation of the performance, I referred to recordings of the work in order to approach these inquiries accurately, which is what I would recommend future performers of this arrangement.

One of the issues in arranging this piece for steel pans was the conflicts between clefs. As stated earlier, the double seconds are playing the music originally written for the viola. The viola commonly reads in alto clef where the middle C is located in the middle line of the 5-line staff. Since the double seconds commonly read in treble clef I decided to transpose the viola music to accommodate the appropriate clef for the steel pan.

Another alteration made in this arrangement was the omission of articulation markings from the original string score. There were only two kinds of articulation markings found in the Bärenreiter-Verlag edition, the basic *staccato* accent, indicating short, separated from the following note, and a *staccatissimo* accent, meaning an exaggerated short duration of the note.¹³⁰ Since the steel pans cannot fully control the duration of a struck note without the use of their hands or a prepared source, I felt it unnecessary to include the articulation markings in this arrangement.

One final major alteration to the structure of the original piece was the elimination of the repeat bars in measures 55, 56, and 137. Since much of the music in this movement is reiterated I felt that following the repeat bars would make the performance redundant.

¹³⁰ Brian Blood, "Music Theory Online: Phrasing and Articulation," Dolmetsch Online - Music Theory Online Contents, October 25, 2018, accessed February 6, 2019, <https://www.dolmetsch.com/musictheory21.htm#accent>.

In a performance tempo of 120 beats per minute, without the repeat bars the entire movement would take approximately 4 and a half minutes.

When arranging *Eine kleine Nachtmusik* for steel pan quartet I attempted to keep all of the notated material as close to that of the original text, including pitch, rhythm, and ornamentation. There were however several changes that had to be made in order for the piece to work properly for steel pans. The first set of changes have been a common issue to the previously discussed arrangements, pitches that are out of range to the pan. There are several examples of single notes being displaced for the sake of the instrument's range. In measure 35-38, the cello (pan) voice has displaced two notes of the same pitch (A2) up an octave (now A3) because the lowest note in cello pans are B2¹³¹ (Musical Example 28).

¹³¹ Pichary, *Results of the Steel Pan Survey*, 804.

The musical score consists of two systems, each with four staves. The key signature is G major (one sharp). The first system (measures 35-38) shows a piano accompaniment with a steady eighth-note pattern in the right hand and a bass line in the left hand. The melody in the right hand includes trills marked with '[#] tr' above the notes. The second system (measures 39-42) continues the same pattern.

Musical Example 28 Pitch Displacement in Cello (mm. 35-38).

Similar occurrences of pitch displacement due to range issues can be seen in measures 14 (double seconds), 27 (cellos), 28-29 (cellos), 33 (cellos), 46 (cellos), 48 (cellos), 50-51 (cellos), 56-57 (cellos), 61 (cellos), 62 (cellos), 65 (cellos), 70 (double seconds), 89 (double seconds), 100 (double seconds), 128 (cellos), 130 (cellos), and 132-137 (cellos).

There are some instances where instead of moving a note up an octave to accommodate the register of the instrument, the pitch in question has been moved to another voice of the quartet. This is the case between the tenor II and double seconds as seen in measures 108-112 (Musical Example 29).

Musical Example 29 Pitch Displacement in Tenor II/Double Seconds (mm. 108-112).

In the tenor II voice, there are several notes (A3/B3) that are below the range of a typical tenor pan's lowest note C4.¹³² Since over half of the notes in this phrase is below the range of the tenor, I had decided, instead of raising all the notes up an octave, to move all the notes of the tenor II to the double seconds. This gives the double seconds four

¹³² Pichary, *Results of the Steel Pan Survey*, 804.

measures of thirds to perform while the tenor II rests measures 108-112 returning to performance in beat 3 of measure 112. I believe that since the notes in question were in the range of the double seconds it would be more efficient to transfer the notes instead of bringing the pitches up an octave and create conflict with the material performed in the tenor I voice.

Another transfer of pitches due to range that needs to be discussed is found in measure 18-19 (Musical Example 30). Again, we see a pitch conflict of range in the tenor II voice as all notes except the C4 are below the range of the tenor pan. Since the double seconds and cello have the same material for the measures in question I decided to give the material of the tenor II to the double seconds. The following measure 19 material was also included in the transfer for consistency though the pitches are within the tenor pan's range. For the tenor II part I held the held the tied half/eighth note G4 to double the same material the tenor I is playing in measure 18, measure 19 plays the tied half/eighth note G4 as seen in the original music.

The image displays two musical staves, measures 18 and 19, with four staves each. The notation includes various musical symbols such as notes, rests, trills (tr), and dynamic markings (sf, p). The key signature has one sharp (F#). In measure 18, the top staff has a half note G4 with a trill, followed by a half note A4. The second staff has a half note G4 with a trill, followed by a half note A4. The third staff has a half note G4 with a trill, followed by a half note A4. The bottom staff has a half note G4 with a trill, followed by a half note A4. In measure 19, the top staff has a half note G4 with a trill, followed by a half note A4. The second staff has a half note G4 with a trill, followed by a half note A4. The third staff has a half note G4 with a trill, followed by a half note A4. The bottom staff has a half note G4 with a trill, followed by a half note A4.

Musical Example 30 Pitch Displacement in Tenor II/Double Seconds (mm. 18-19).

This same pitch transfer occurs again in measures 93-94. Similar instances of pitch transfer due to range issues are found in measures 9 (tenor II/double seconds), 68 (tenor II/double seconds), 116-118 (tenor II/double seconds), 128 (tenor II/double seconds), 130 (tenor II/double seconds), and 136 (tenor II/double seconds).

This was not the only kind of pitch transfer that occurred in the arrangement, at times instead of giving the out of range notes to another voice, notes and even whole phrases were switched between instruments. In measures 5-8 the lower pitches of the dyads in the tenor II voice are below the range of the tenor pan (mm. 5-6 shown in Musical Example 31). Instead of transferring these notes to the double seconds like in previous examples, I instead switched the entire material between the tenor II and double seconds. The material performed by the double seconds are within the range of the tenor pan and since moving the pitches in question up an octave would be too close to the melody in the tenor I, the best displacement would be to divide the material between the two instruments.

Musical Example 31 Pitch Displacement in Tenor II/Double Seconds (mm. 5-6).

Similar occurrences of pitch exchange due to range issues can be found in measures 13 (tenor II/double seconds), 30 (tenor II/double seconds), 80-85 (tenor II/double seconds), 88 (tenor II/double seconds) 102 (tenor II/double seconds), and 132-135 (tenor II/double seconds).

There are also a few instances of pitch alterations that, instead of being displaced in some fashion, were simply omitted from the arrangement. These occur in instances when there were too many notes to execute at the same time. The tenor I and II notes in downbeat measure 1 (D4) were omitted in the G Major triad since the performers would not be able to play all the chord tones at the same time. In future revisions of the arrangement I plan to include the D4 pitch in one of the tenor voices to complete the G Major triad. Similar occurrences of this particular kind of pitch omission can be found in measures 131-137 (tenor I) and 136-137 (tenor II).

There was only one kind of rhythmic alteration made in the arrangement of *Eine kleine Nachtmusik*, though it did not concern the expansion or reduction of note values. Looking back to the excerpt of measures 5-8 (mm. 5-6 shown in Musical Example 32) the violin II voice has a series of dyads in the phrase. Since the tempo of the piece makes playing these dyads on pan rather difficult I decided to alternate between the pitches of the dyads, giving presence of both pitches while continuing the driving force of the rhythm without worry of loss of time. This kind of split dyad alteration is found in measures 22-23 (double seconds), 26 (tenor II), 80-83 (double seconds), 97-99 (double seconds), and 132-135 (double seconds).

Musical Example 32 Rhythmic Alteration in Double Seconds (mm. 5-6).

Throughout this movement of Mozart's work there are two kinds ornaments that were included in the pan quartet arrangement, *trills* and *grace notes*. The trill is a type of embellishment that consists in a more or less rapid alternation of the main note with the one a tone or semitone above it.¹³³ For the various types of trills in music, there are three components that can make up this ornament: a preparation (prefix), a shake, and a termination.¹³⁴ The trills in the original piece and arrangement, only indicated by a symbol (*tr*), designates that only a shake will be executed. The shake begins on the note above (auxiliary note) the written note (primary note) and finishes on the written note, if an accidental is placed above the trill symbol, this indicates a chromatic inflection of the auxiliary note.¹³⁵ The remaining trills in this arrangement, performed amongst the tenor I, tenor II, and double seconds pans, are found in measures 6, 8, 18-19, 51-53, 61-67, 81, 83, 93-94, 109-112, 117-120, and 124-126.

The grace notes in the Mozart composition were all transferred in the steel pan arrangement. The grace notes can be found in both tenor pan voices in measures 9-10, 12-13, and 87-88. With such ornaments as grace notes it is important for the performer to be aware of the approach to the proper execution. These grace notes are played either just before the beat, resolving speedily to the principal note which is itself on the beat, or is played on the beat but resolves speedily to the principal note which is accented.¹³⁶ Since the primary notes in both versions are not accented, the performer should play the grace

¹³³ "Trill (Ger. Triller; It. Trillo; Sp. Trinado, Trino)," Grove Music Online, December 05, 2017, accessed February 1, 2019, <http://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000048836>.

¹³⁴ Brian Blood, "Music Theory Online: Ornamentation," Dolmetsch Online - Music Theory Online Contents, October 24, 2018, accessed February 1, 2019, <https://www.dolmetsch.com/musictheory23.htm#trill>.

¹³⁵ Ibid.

¹³⁶ Brian Blood, *Music Theory Online: Ornamentation*.

notes just before the beat. In regards to the proper speed of the execution of both grace and primary notes, the performer should refer to recordings of the original work as well as other arrangements if possible.

When my quartet had its first rehearsal, I was greatly surprised of how well the music performed on the steel pans. This has made me curious if the remaining three movements of Mozart's *Serenade in G* will be as easily adaptable for the steel pan. As I have asked the other arrangers discussed in this dissertation, I ask myself the significance of arranging works like this for steel pan chamber ensemble. The best way to answer this is in the next and final chapter pertaining why this music must be apart of the steel pan repertoire.

CONCLUSION

After discussing the influence of western art music in the early development of steel pan, explaining the instruments of the steel pan orchestra, and analyzing four western art music arrangements for steel pan chamber music, it is necessary to discuss the importance of the contributions of this repertoire for the prosperity of the steel pan.

The modern steel pan has only been in existence for just over seventy years. Since then the expansion and popularity of the instrument has grown substantially over the world. In North America, the number of steel pan programs in schools have increased from over a dozen¹³⁷ ensembles to over 750¹³⁸ recognized programs today. In the United States alone there are over 110 professional and community steel bands in existence today¹³⁹. With so many established steel pan programs, the available published repertoire must be diverse.

There are many publishing companies that distribute steel pan repertoire, including some that exclusively publish steel pan music. From sixteen publishing companies of over 1,100 published works written for steel pan, 94% of the repertoire are composed for traditional steel band, comprised of steel pan orchestra and engine room

¹³⁷ G. Allan O'Connor, "Pan: Heartbeat of a Nation," *Percussive Notes* 19, no. 3 (Summer 1981): 54-55, <http://www.pas.org/resources/research/archive-of-publications>, accessed February 2, 2019.

¹³⁸ Brandon Haskett, *U.S. and Canadian K-12 and Collegiate Steel Band Directory*, distributed by National Society of Steel Band Educators, <https://weteachpan.org/resource/schooldirectory/>, accessed February 2, 2019.

¹³⁹ Brandon Haskett, *U.S. Community and Professional Steel Band Directory*, distributed by National Society of Steel Band Educators, <https://weteachpan.org/resource/commprofdirectory/>, accessed February 2, 2019.

(drum set and percussion).¹⁴⁰ Five percent are for solo pan instruments and three percent are for chamber ensemble settings, typically duet and trio with instrumentation varying between pan and non-pan instruments.¹⁴¹ The remaining one percent is reserved for works written for percussion ensemble including pan instruments and combo groups.¹⁴² With such a gap in the various ensemble categories in published repertoire the music written for larger steel bands can be an issue to smaller programs.

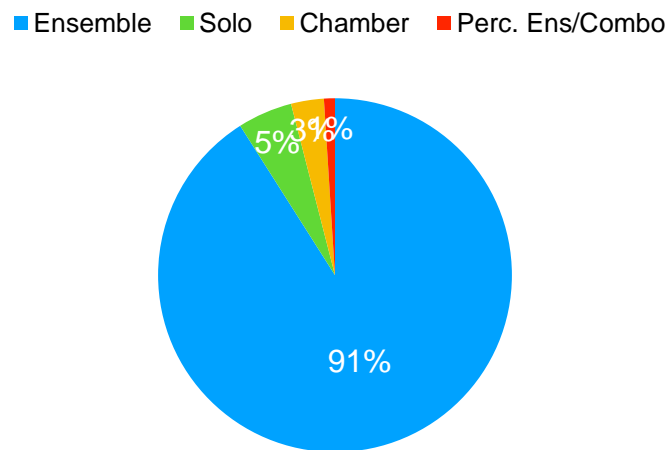


Figure 15. *Compilation of Pan Repertoire from Publications.*

In a 2018 survey of over sixty steel pan educators, a majority of their school steel pan programs have a compliment of twenty or less students.¹⁴³ These small ensembles can be attributed to various reasons however one issue in particular concerns the

¹⁴⁰ Ian J. Meiman, "Steel Pan Chamber Music: A Perspective in Repertoire," *The Steel Times* 1, no. 3 (November 2018): 24, accessed February 2, 2019, <https://weteachpan.org/wp-content/uploads/2018/11/The-Steel-Times-Final-Draft-Magazine-Layout.pdf>.

¹⁴¹ Ibid.

¹⁴² Ibid.

¹⁴³ Ibid.

instruments themselves. The principle factor limiting participants in steel pan ensembles is instrument cost. As explained in Chapter 2, building a steel drum (pan) is a laborious process, plagued by the idiosyncratic layout of notes and the temperamental metal playing surface.¹⁴⁴ Because of the labour-intensive process the wait period for steel pans can vary from one manufacturer to the next: a typical delay takes four to six months, but some buyers have had to wait over a year to receive their instruments.¹⁴⁵ Along with the possible long wait for the instruments, directors will also have to factor in the cost of these instruments. Depending on the manufacturer and the quality of the instrument the cost of a steel pan can vary, a lead pan for example can range in cost from \$700 to \$5,000.¹⁴⁶ Because of these and other factors, building a steel pan program takes a lot of time and money. So, if small programs are mostly limited to works created for larger ensembles, what other music can they play? One option is chamber music.

There are many potential benefits for more steel pan chamber music for not only smaller programs but larger programs as well. Incorporating chamber music repertoire broadens performance opportunities for students.¹⁴⁷ Since the scope of the typical instruments in a steel pan ensemble are graduated in range, chamber music can be adapted to suit the instruments in a fashion similar to typical western music chamber settings.¹⁴⁸ Because of this, pan musicians can perform an array of works, from classical adaptations to original pieces.¹⁴⁹ Steel pan chamber music can aide in the development of

¹⁴⁴ Andrew R Martin, *A Voice of Steel through the Iron Curtain*, 354.

¹⁴⁵ Tanner, *The Steel Band Game Plan*, 10.

¹⁴⁶ Ibid.

¹⁴⁷ Meiman, *Steel Pan Chamber Music*, 25.

¹⁴⁸ Ibid.

¹⁴⁹ Ibid.

work skills as the students must cooperate in organizing rehearsal progress in order to perform the music successfully as professional musicians must achieve.¹⁵⁰ Another benefit in steel pan chamber music is the logistical based, directors who have had performances away from the studio know hassle of moving and transporting instruments.¹⁵¹ This stress can be eased if the program was chamber music based and as a result only have to move a few instruments.¹⁵²

With these benefits it is important that new arrangements and original music be created for steel pan chamber ensembles. In the 2018 survey of steel pan educators, 94% of respondents said that they compose and/or arrange music for steel pan, with such a majority of educators writing music, a contribution to chamber music would greatly expand the repertoire.¹⁵³ From the composer's, arrangers, and directors promoting and expanding steel pan repertoire, music organizations of local, national, and international stature can help promote steel pan chamber music through festivals, competitions, and commissions. The possibilities of the expansion of this genre of steel pan repertoire can be greatly beneficial to the future of these instruments, and western art music arrangements for steel pan chamber ensemble can be an important step forward in steel pan's prosperity.

¹⁵⁰ Meiman, "Steel Pan Chamber Music, 25.

¹⁵¹ Ibid.

¹⁵² Ibid.

¹⁵³ Ibid.

APPENDIX

*The following contains the scores of both original and arranged works
analyzed in this dissertation.*

Partita No. 1, Sarabande and Double

Bach, Johann Sebastian. *Sechs Sonaten und Partiten für Violine solo BWV 1001-1006*. Edited by Klaus Rönna and Wolfgang Schneiderhan. Munich: G. Henke Verlag, 1987.

———. *Partita I BWV 1002: Sarabande and Double*. Arranged for Steel Pan Trio by Adam Gris . Tallahassee, FL: Engine Room Publishing, 2009.

Prelude No 4. in E Minor

Chopin, Frederic. *Preludes pour le Piano*. Leipzig: Breitkopf & H rtel, 1839.

———. *Prelude #4 in E Minor*. Arranged for Steel Drum Quartet by Chris Tanner. Akron: Panyard, 1996.

First Arabesque

Debussy, Claude. *Deux Arabesque*. Paris: Durand et Schoenewerk, 1891. Reprinted New York: Dover Publications, 1974.

———. *First Arabesque*. Arranged Duet for Double Seconds and Quadraphonics by Jason Schreiber. Tallahassee, FL: Engine Room Publishing, 2009.

Serenade in G, Mvt. I Allegro

Mozart, Wolfgang Amadeus. *Serenade in G: Eine kleine Nachtmusik*. Edited by Ernst F. Schmid. Kassel: Bärenreiter-Verlag, 1955.

———. *Serenade in G: Eine kleine Nachtmusik*. Arranged for Steel Pan Quartet by Ian J. Meiman. Union, KY: Ian J Meiman, 2018.

Sarabande

This musical score is for a Sarabande in D major, 3/4 time. It consists of 30 measures across six staves. The key signature has two sharps (F# and C#), and the time signature is 3/4. The melody is written in the treble clef, and the bass line is in the bass clef. The piece features a variety of rhythmic patterns, including eighth and sixteenth notes, and rests. A first and second ending are marked at measures 11-12. The score concludes with a double bar line and repeat dots at the end of the sixth staff.

6

11

16

21

27

Double

4

7

10

14

18

22

26

30

Partita I

BWV1002

Sarabande & Double

J.S. Bach
arr. A. Grisé

Sarabande
circa ♩ = 70

Tenor

Dbl. Seconds

Cello

6

1. 2.

T

DS

C

13

T

DS

C



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Partita I - Sarabande

26

T

DS

C

This musical score is for three voices: Tenor (T), Soprano (DS), and Contralto (C). The key signature is G major (one sharp, F#). The time signature is not explicitly shown but appears to be 4/4 based on the note values. The score covers measures 26 through 31. The Tenor part (T) features a melodic line with eighth and quarter notes, including some grace notes. The Soprano part (DS) consists of eighth and quarter notes, often beamed together. The Contralto part (C) provides a harmonic foundation with quarter and half notes. The piece concludes with a double bar line at the end of measure 31.

The musical score for 'The Rose Tree' is presented in three parts: Tenor (T), Double Bass (DS), and Cello (C). The key signature is one sharp (F#) and the time signature is 3/4. The Tenor part begins with a treble clef and a key signature of one sharp. The melody starts with a quarter rest, followed by a quarter note G4, a dotted quarter note A4, a quarter note G4, and a dotted half note F#4. The Double Bass and Cello parts both begin with a treble clef and a key signature of one sharp. The Double Bass part starts with a quarter note G2, a quarter note A2, and a dotted half note F#2. The Cello part starts with a quarter note G2, a quarter note A2, and a dotted half note F#2. All three parts conclude with a double bar line and repeat dots.

Double
circa $\text{♩} = 130$

T

DS

C

4

8

1.

2.

1.

2.

1.

2.

Detailed description of the musical score: The score is for three voices: Tenor (T), Double Bass (DS), and Cello (C). It is in 3/8 time and the key of D major (two sharps). The tempo is 'Double circa ♩ = 130'. The first system shows measures 1-3. The second system, starting at measure 4, continues the melody. The third system, starting at measure 8, features first and second endings for each voice part. The Tenor part has a first ending that leads back to the beginning of the section and a second ending that continues the melody. The Double Bass and Cello parts also have first and second endings that provide harmonic support and continuation.

Partita I - Double

12

T

DS

C

16

T

DS

C

20

T

DS

C

The musical score consists of three systems of three staves each. The first system starts at measure 12, the second at measure 16, and the third at measure 20. Each system is labeled with 'T' for Treble, 'DS' for Alto, and 'C' for Bass. The notation includes various note values, rests, and accidentals, all within a key signature of two sharps.

Partita I - Double

24

T

DS

C

29

T

DS

C

33

1.

2.

1.

2.

1.

2.

Nº 4.

Largo.

espress.

stretto

dim. *p* *smorz.* *pp*

Ped. \oplus

Ped. \oplus

Fine.

6088.

PRELUDE #4

Espressivo

Composed by Frederic Chopin
Arranged by Chris Tanner

SOLO

p

D. SEC.

p

CELLO

p

BASS

SOLO

5

D. SEC.

(b)

CELLO

(b)

BASS

Copyright © 1996 Chris Tanner
All Rights Reserved
Made in U.S.A.

Published by PANYARD, INC.
Akron, Ohio

SOLO

D. SEC.

CELLO

BASS

SOLO

D. SEC.

CELLO

BASS

17

SOLO *f* *dim.* *p*

D. SEC. *f* *dim.* *p*

CELLO *f* *dim.* *p*

BASS *f*

21

SOLO *pp*

D. SEC. *pp*

CELLO *pp*

BASS *pp* **FINE**

2 Arabesques

I.

And^{no} con moto

p

A tempo

rit.

pp

poco a poco cresc.

sempre cresc. e stringendo

rit

p

p e Rit. *Tempo* *p e Rit.*

Tempo

p

cresc. e poco mosso

p

Tempo rubato (un peu moins vite)

First system of musical notation. The right hand plays a melodic line with slurs and ties, while the left hand provides harmonic support with chords and single notes. Dynamics include *p* (piano) and *sf* (sforzando).

Mosso

Second system of musical notation. The tempo is marked *Mosso*. The right hand continues the melodic development, and the left hand features more active bass lines. Dynamics include *p* (piano) and *cresc.* (crescendo).

Rit.

Mosso

Third system of musical notation. It includes a *Rit.* (Ritardando) marking followed by a *Mosso* marking. The right hand has a more complex melodic line with slurs. Dynamics include *f* (forte) and *p* (piano) with *cresc.* (crescendo).

A tempo

Fourth system of musical notation. The tempo is marked *A tempo*. The right hand features a series of slurred eighth notes. Dynamics include *f* (forte) and *p* (piano).

Fifth system of musical notation. The right hand continues with slurred melodic phrases, and the left hand provides a steady harmonic accompaniment. Dynamics include *p* (piano).

Risoluto

dim. molto e rit.

più dim

I tempo

p

A tempo

rit.

p

poco a poco cresc.

stringendo e sempre cresc.

Rit

Tempo

p

dim. *più din.*

p *pp*

pp

The musical score consists of five systems of two staves each. The key signature is D major (two sharps) and the time signature is 2/4. The first system begins with a 'Tempo' marking and a piano 'p' dynamic. The second system continues the piece. The third system includes 'dim.' and 'più din.' markings. The fourth system has piano 'p' and pianissimo 'pp' dynamics. The fifth system concludes with a pianissimo 'pp' dynamic and a double bar line.

First Arabesque

Score

Claude Debussy
arr. Jason Schreiber

A **Andante tres expressif**

Double Seconds

Quadrphonics

3

6

10

14



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First Arabesque

34

37

42

47

50

4 First Arabesque

53

58

63

C

67

71

A2

First Arabesque

5

74

77

81

85

88

D

6

First Arabesque

91

8

94

8

97

A3

8

100

8

104

8

SERENADE IN G

Eine kleine Nachtmusik

KV 525

Datiert: Wien, 10. August 1787

Allegro

Violino I
Violino II
Viola
Violoncello e Basso

f

5

tr

8

tr

p

12

p

18

tr p sf p

cre - scen - - - do

22

f f f

cre - scen - - - do

25

p p p

cre - scen - - - do

29

p p p

cre - scen - - - do

34

Trills marked with a sharp sign and 'tr' are present in measures 34, 35, 36, 37, 38, and 39. Dynamics include 'f' at the end of measure 39.

40

Trills marked with a sharp sign and 'tr' are present in measures 40, 41, 42, 43, and 44. Dynamics include 'p' at the end of measure 44.

45

Trills marked with a sharp sign and 'tr' are present in measures 45, 46, 47, 48, and 49. Dynamics include 'f' at the end of measure 49.

50

Trills marked with a sharp sign and 'tr' are present in measures 50, 51, 52, 53, and 54. Dynamics include 'p' at the end of measure 54.

56

System 1 (measures 56-61) features a four-staff arrangement. The top two staves (treble clef) and the bottom two staves (bass clef) are in G major. The music begins with a forte (f) dynamic. Measures 56-60 show a melodic line in the upper staves with trills (tr) and a steady eighth-note accompaniment in the lower staves. Measure 61 transitions to a piano (p) dynamic and introduces a new melodic motif in the upper staves.

62

System 2 (measures 62-67) continues the piece. Measures 62-66 feature a consistent eighth-note accompaniment in the lower staves. The upper staves contain a melodic line with frequent trills (tr). Measure 67 concludes the system with a final melodic phrase in the upper staves.

68 [b] tr

System 3 (measures 68-73) introduces a key change to B minor, indicated by the [b] symbol. Measures 68-72 feature a melodic line in the upper staves with trills (tr) and a steady eighth-note accompaniment in the lower staves. Measure 73 concludes the system with a final melodic phrase in the upper staves.

74

System 4 (measures 74-79) returns to G major. Measures 74-78 feature a melodic line in the upper staves with trills (tr) and a steady eighth-note accompaniment in the lower staves. Measure 79 concludes the system with a final melodic phrase in the upper staves.

80

83

88

94

sf p tr cre - scen - - - do f

sf p tr cre - scen - - - do f

sf p cre - scen - - - do f

sf p cre - scen - - - do f

98

98 99 100 101

p

102

102 103 104 105 106

p

107

107 108 109 110 111 112

p

113

113 114 115 116 117

p

119

125

130

134

Eine Kleine Nachtmusik

W.A. Mozart
arr. Ian Joseph Meiman

Allegro

Tenor I

Tenor II

Dbl. Seconds

Cello/Guitar

Steel D.

Steel D.

Steel D.

Steel D.

© 2018 Ian J Meiman

9

Steel D.

Steel D.

Steel D.

Steel D.

13

Steel D.

Steel D.

Steel D.

Steel D.

17

Steel D.

Steel D.

Steel D.

Steel D.

sf *p* *sf* *p*

20

Steel D.

Steel D.

Steel D.

Steel D.

22

Steel D.

f

Steel D.

f

Steel D.

Steel D.

f

Steel D.

25

Steel D.

Steel D.

Steel D.

Steel D.

Steel D.

28

Steel D.

Steel D.

Steel D.

Steel D.

p 3

p 3

p 3

p

32

Steel D.

Steel D.

Steel D.

Steel D.

3

35

Steel D.

Steel D.

Steel D.

Steel D.

[#] tr

[#] tr

[#] tr

39 ^[#] *tr* 5

Steel D. *f* 3

Steel D. *f* 3

Steel D. *f*

Steel D.

42 ^[#] *tr* ^[#] *tr*

Steel D. *p*

Steel D. *p*

Steel D. *p*

Steel D. *p*

46 ^[#] *tr* ^[#] *tr*

Steel D. *f* 3

Steel D. *f* 3

Steel D. *f*

Steel D.

49

Steel D.

Steel D.

Steel D.

Steel D.

52

Steel D.

Steel D.

Steel D.

Steel D.

56

Steel D.

Steel D.

Steel D.

Steel D.

60

Steel D.

Steel D.

Steel D.

Steel D.

p

p

p

p

64

Steel D.

Steel D.

Steel D.

Steel D.

tr

tr

tr

tr

68

Steel D.

Steel D.

Steel D.

Steel D.

tr

tr

tr

f

f

f

f

71

Steel D.

Steel D.

Steel D.

Steel D.

p

p

p

75

Steel D.

Steel D.

Steel D.

Steel D.

tr

f

f

f

p

79

Steel D.

Steel D.

Steel D.

Steel D.

tr

p

82

Steel D.

Steel D.

Steel D.

Steel D.

tr

84

Steel D.

Steel D.

Steel D.

Steel D.

p

p

p

p

88

Steel D.

Steel D.

Steel D.

Steel D.

92

Steel D.

Steel D.

Steel D.

Steel D.

sf *p* *sf* *p*

tr *tr*

95

Steel D.

Steel D.

Steel D.

Steel D.

97

Steel D.

Steel D.

Steel D.

Steel D.

f *f* *f* *f*

99

Steel D.

Steel D.

Steel D.

Steel D.

p

3

p

3

p

p

102

Steel D.

Steel D.

Steel D.

Steel D.

3

3

3

106

Steel D.

Steel D.

Steel D.

Steel D.

tr

12

Steel D. *110* *tr* *f* *3*

Steel D.

Steel D.

Steel D. *f*

Steel D. *114* *p* *tr*

Steel D. *p*

Steel D.

Steel D. *p*

Steel D. *118* *tr* *f* *3*

Steel D. *f* *3*

Steel D. *f*

Steel D. *p* *f*

121

Steel D.

Steel D.

Steel D.

Steel D.

3

124

Steel D.

Steel D.

Steel D.

Steel D.

p

p

p

p

132

Steel D.

This system contains measures 132 and 133. Measure 132 features a whole rest on the first staff, followed by a quarter note G4, and eighth notes A4, B4, C5, and D5. Measures 132-133 show a continuous eighth-note melody on the second staff (G4-A4-B4-C5-D5-E5-F#5-G5), a sixteenth-note accompaniment on the third staff (G4-A4-B4-C5-D5-E5-F#5-G5), and a steady eighth-note bass line on the fourth staff (G3-A3-B3-C4-D4-E4-F#4-G5).

134

Steel D.

This system contains measures 134 and 135. Measure 134 features a whole rest on the first staff, followed by a quarter note G4, and eighth notes A4, B4, C5, and D5. Measures 134-135 show a continuous eighth-note melody on the second staff (G4-A4-B4-C5-D5-E5-F#5-G5), a sixteenth-note accompaniment on the third staff (G4-A4-B4-C5-D5-E5-F#5-G5), and a steady eighth-note bass line on the fourth staff (G3-A3-B3-C4-D4-E4-F#4-G5).

136

Steel D.

This system contains measures 136 and 137. Measure 136 features whole rests on the first two staves, followed by a quarter note G4, and eighth notes A4, B4, C5, and D5. Measures 136-137 show a continuous eighth-note melody on the second staff (G4-A4-B4-C5-D5-E5-F#5-G5), a sixteenth-note accompaniment on the third staff (G4-A4-B4-C5-D5-E5-F#5-G5), and a steady eighth-note bass line on the fourth staff (G3-A3-B3-C4-D4-E4-F#4-G5).

REFERENCES

- Aho, William R. "Steel Band Music in Trinidad and Tobago: The Creation of a People's Music." *Latin American Music Review/Revista Música Latinoamericana* 8, no. 1 (Spring 1987): 26-58. Accessed November 1, 2018. doi:10.2307/948067.
- Abert, Herman. *W.A. Mozart*. Translated by Stewart Spencer. Edited by Cliff Eisen. New Haven, CT: Yale University Press, 2007.
- Bach, Johann Sebastian. *Sonatas and Partitas for Violin Solo*. Ed. Ivan Galamian. New York: International Music Company, 1971.
- . *Partita I BWV 1002: Sarabande and Double*. Arranged for Steel Pan Trio by Adam Grisé. Tallahassee, FL: Engine Room Publishing, 2009.
- . *Two-Part Inventions*. 2nd ed. Edited Willard A. Palmer. Van Nuys, CA: Alfred Publishing, 1991.
- . *Sechs Sonaten und Partiten für Violine solo BWV 1001-1006*. Edited by Klaus Rönnaun and Wolfgang Schneiderhan. Munich: G. Henke Verlag, 1987.
- Berich, Tom. "Steel Drum Instruments and Bands: Perspectives from the Makers and Tuners." *Percussive Notes* 50, no. 3 (May 2012): 60-63. Accessed November 20, 2018. <http://www.pas.org/resources/research/archive-of-publications>.
- Blake, Felix, *The Trinidad & Tobago Steel Pan: History and Evolution* (1995). Quoted in Jeremy G. De Barry "T.A.P.S.O." Trinidad All Steel Percussion Orchestra-TASPO- 1951: Steelband. June 24, 2014. Accessed February 18, 2019. <http://www.seetobago.org/trinidad/pan/history/bandhist/taspo/dbtaspo.htm>.
- Brown, Ernest D. "Carnival, Calypso, and Steelband in Trinidad." *The Black Perspective in Music* 18, no. 1/2 (1990): 81-100. Accessed November 1, 2018. doi:10.2307/1214859.

- Chopin, Frederic. *Preludes pour le Piano*. Leipzig: Breitkopf & Härtel, 1839.
- . *Prelude #4 in E Minor*. Arranged for Steel Drum Quartet by Chris Tanner. Akron: Panyard, 1996.
- "Classical Series." Mannette Musical Instruments. Accessed February 5, 2019. <http://www.mannetteinstruments.com/classical-series.html>.
- Dietschy, Marcel. *A Portrait of Claude Debussy*. Edited by William Ashbrook and Margaret G. Cobb. Oxford: Clarendon Press, 1990.
- Dyke, Darren. "Dr. Ellie Mannette." Pancyple. September 7, 2018. Accessed December 27, 2018. <http://www.pancyplemusic.com/ellie-mannette/>.
- Debussy, Claude. *Deux arabesques*. Paris: Durand et Schoenewerk, 1891. Reprinted New York: Dover Publications, 1974.
- . *First Arabesque*. Arranged Duet for Double Seconds and Quadraphonics by Jason Schreiber. Tallahassee, FL: Engine Room Publishing, 2009.
- Dudley, Shannon. *Carnival Music in Trinidad: Experiencing Music, Expressing Culture*. New York: Oxford University Press, 2004.
- . "Dropping the Bomb: Steelband Performance and Meaning in 1960s Trinidad." *Ethnomusicology* 46, no. 1 (Winter 2002): 135-64. Accessed November 9, 2018. doi:10.2307/852811.
- . *Music from Behind the Bridge: Steelband Spirit and Politics in Trinidad and Tobago*. New York: Oxford University Press, 2008.
- . "The Steelband 'Own Tune': Nationalism, Festivity, and Musical Strategies in Trinidad's Panorama Competition." *Black Music Research Journal* 22, no. 1 (Spring 2002): 13-16. Accessed November 5, 2018. doi:10.2307/1519963.

Gibson, Gary. "Ellie Mannette on the Beginnings of Pan in Trinidad." *Percussive Notes* 24, no. 4 (April 1986): 10-17. Accessed November 20, 2018. <http://www.pas.org/resources/research/archive-of-publications>.

Haskett, Brandon. *U.S. and Canadian K-12 and Collegiate Steel Band Directory*. Distributed by National Society of Steel Band Educators. <https://weteachpan.org/resource/schooldirectory/>. Accessed February 15, 2019.

———. *U.S. Community and Professional Steel Band Directory*. Distributed by National Society of Steel Band Educators. <https://weteachpan.org/resource/commprofdirectory/>. Accessed February 15, 2019.

Khan, Nasser. "Legends of Carnival: Mas, calypso, steelpan." Trinidad and Tobago Guardian, February 11, 2018. Accessed December 27, 2018. <http://support.guardian.co.tt/news/2018-02-11/mas%2C-calypso%2C-steelpan>.

Martin, Andrew R. "A Voice of Steel through the Iron Curtain: Pete Seeger's Contributions to the Development of Steel Band in the United States." *American Music* 29, no. 3 (Fall 2011): 353-80. Accessed April 19, 2017. doi:10.5406/americanmusic.29.3.0353.

Martin, Andrew, Ray Funk, and Jeannine Remy. *Steelpan in Education: A History of the Northern Illinois University Steelband*. DeKlab, IL: NIU Press, 2017.

Meiman, Ian J. "Steel Pan Chamber Music: A Perspective in Repertoire." *The Steel Times* 1, no. 3 (November 2018): 24-25. Accessed February 2, 2019. <https://weteachpan.org/wp-content/uploads/2018/11/The-Steel-Times-Final-Draft-Magazine-Layout.pdf>.

Mozart, Wolfgang Amadeus. *Serenade in G: Eine kleine Nachtmusik*. Edited by Ernst F. Schmid. Kassel: Bärenreiter-Verlag, 1955.

———. *Serenade in G: Eine kleine Nachtmusik*. Arranged for Steel Pan Quartet by Ian J. Meiman. Union, KY: Ian J Meiman, 2018.

Murr, Lawrence E., and Everaldo Ferreyra Tello. "Connecting Materials Science and Music in Steel Drums: A serendipitous collection of scientific, especially metallurgical, principles created melodic instruments from sawed-off steel barrels." *American Scientist* 88, no. 1 (January-February 2000): 38-45. Accessed December 27, 2018. <http://www.jstor.org/lynx.lib.usm.edu/stable/27857961>.

Nurse, A. Myrna. *Unheard Voices: The Rise of Steelband and Calypso in the Caribbean and North America*. New York: iUniverse, 2007.

O'Connor, G. Allan. "Pan: Heartbeat of a Nation." *Percussive Notes* 19, no. 3 (Summer 1981): 54-55. Accessed February 2, 2019. <http://www.pas.org/resources/research/archive-of-publications>.

Pile, Oscar. circa 2000. Interview by David V. Trotman. *History Watch*. Edited by Audra A Diptee. Accessed February 6, 2019. soundcloud.com/historywatch/sets/oscar-pile-interview-sound.

"Professional Series." Mannette Musical Instruments. Accessed February 5, 2019. <http://www.mannetteinstruments.com/professional-series.html>.

Rogers, Lisa. "Elliott 'Ellie' Mannette." *Percussive Notes* 41, no. 4 (August 2003): 14-15. Accessed November 20, 2018. <http://www.pas.org/resources/research/archive-of-publications>.

Pichary, L. "Results of the Steel Pan Survey 90." *Trinidad and Tobago Bureau of Standards* (1990): Quoted in Thomas A. Rossing, Uwe J. Hansen, and D. Scott Hampton, "Vibrational mode shapes in Caribbean steelpans. I. Tenor and double second." *The Journal of the Acoustical Society of America* 108, no. 2 (September 2000): 803-12. Accessed December 29, 2018. doi:10.1121/1.429613.

Seeger, Peter. "The Steel Drum: A New Folk Instrument." *The Journal of American Folklore* 71, no. 279 (1958): 52-57. Accessed April 24, 2017. doi:10.2307/537959.

Smith, Angela. *Steel Drums and Steelbands: A History*. Lanham, MD: Rowman & Littlefield, 2012.

"Sticks and Mallets." /downloads/Panyard/Steel Pans/. January 18, 2015. Accessed February 5, 2019. <http://www.tomandwill.com/downloads/Panyard/Steel Pans/>.

Stuempfle, Stephen. *The Steelband Movement: The Forging of a National Art in Trinidad and Tobago*. Philadelphia: University of Pennsylvania Press, 1995.

Tanner, Chris. "Steel Band Repertoire: The Case for Original Music." *Music Educators Journal* 97, no. 1 (September 2010): 58-63. Accessed February 11, 2019. <http://www.jstor.org/stable/40960179>.

———. *The Steel Band Game Plan: Strategies for Starting Building, and Maintaining Your Pan Program*. Lanham, MD: Rowman & Littlefield Education, 2007.

Tiffe, Janine. "Interview with Steelpannist Mia Gormandy." *Percussive Notes* 53, no. 5 (November 2015): 44-46. Accessed April 13, 2017. <http://www.pas.org/resources/research/archive-of-publications>.

Thomas, Jeffrey Ross. *Forty Years of Steel: An Annotated Discography of Steel Band and Pan Recordings, 1951-1991*. Westport: Greenwood Press, 1992.

Thompson, Oscar. *Debussy: Man and Artist*. New York: Dodd, Mead & Company, 1937.

Tomaszewski, Mieczysław. "Prelude in E Minor, Op. 28, No. 4." Fryderyk Chopin-Information Centre- Chopin's Life. Accessed January 8, 2019. <http://en.chopin.nifc.pl/chopin/composition/detail/id/197>.

White, Larry, and Lawrence Murr. "Metallurgy of the Caribbean Steel Drum." *Percussive Notes* 38, no. 1 (February 2000): 57-60. Accessed April 13, 2017. <http://www.pas.org/resources/research/archive-of-publications>.

Wright, Craig, Brian Simms, and William Alves. *Music History: Eastern Kentucky University MUS 371*. Mason, OH: Thomson Wadsworth, 2006, 499.

Yu, Fred. "Music Analysis: Preludes." Chopin: Complete Music Analysis- Preludes. Accessed January 8, 2019. <http://www.ourchopin.com/analysis/prelude0108.html>.