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**Title of Thesis:**

The absence of standardization of mid-range steelpan instruments and its effects on steelpan players in Trinidad and Tobago.

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## ABSTRACT

This study explores the absence of standardization in mid-range steelpan instruments, focusing on the layout of notes, the position of pans, and the placement of the boreholes for ties to hang the pans when discussing standardization. Furthermore, it explores the effects standardization has on players. Through research and interviews with tuners and band representatives, this study delves into the stance of standardization in the steelband fraternity, its initiatives to standardize, its hindrances, and its progress towards standardization. Brought to the forefront is the cultural significance that comes with the absence of standardization. Through the analysis of some mid-range pans in bands known for having traditional styles, the areas of inconsistencies are brought to light such as variation. The effect these inconsistencies have on players is investigated using a survey that explores the effects that are experienced by players throughout the steel pan fraternity in school bands, junior band, and community band. Through various interviews with band representatives, tuners and a survey one can say there is some aspect of standardization within the mid-range pans but still much to be done.

**Keywords:** Steelpan, Mid-Range Pans, Standardization, Double Guitar, Three Cello, Four Cello.

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**TURN-IT IN RECEIPT** ..... PPP

# INTRODUCTION

According to the Cambridge Dictionary, Standardization is defined as “the process of making things of the type all have the same basic features” (Standardization). Within the music industry, most instruments have been standardized. This is done to create a standard in which the instruments would be produced, how they sound, and how they look. In addition to this standardization is a process taken to eliminate economic wastage, eradicate variety and poor-quality products, in this case, instruments (Lomb 176).

Instruments that are standardized such as the piano and violin became standardized when persons began to accept one style of producing the instrument which was considered functional or of the best quality. The standard of the 88-key piano was accepted in the late 1880s when Steinway created the 88-key piano which all other manufacturers followed suit (Roberts). On the other hand, the violin was standardized around the 16<sup>th</sup> century after a violin maker Andrea Amati mass-produced a larger order of string instruments for Catherine de Medici in 1560. The large scale of the order resulted in restoring the fourth string and adding the popularized f-curve (StringOvation Team). Currently, the proposed process of standardization for musical instruments is placed into three areas: common standards which dealt with classification and terminology, method standards, and standards for application-oriented products and accessories (Boler).

The steelpan, also informally referred to as the steel drum differentiates itself by being the only acoustic non-electrical instrument to be invented in the 20<sup>th</sup> century

(TTConnect). Created due to the prohibition of the *Tambo Bamboo*<sup>1</sup> this instrument began as sunken tin pans were later developed to the *ping pong*<sup>2</sup> (Taylor). Pioneered by Winston ‘Spree’ Simmons and Ellie Mannette, the pinnacle of this instrument’s advancement was the use of discarded 55-gallon oil drums to create the variations of the steelpan we have today. With the increase in surface area tuners and innovators such as Anthony Williams, Bertie Marshall, Neville Jules among others who arose during the post-war period began experimenting with note placement and patterns.

During the earlier days of the steelpan, each panyard would have its pans made unique to prevent rival bands from stealing music. However, over time, the pan fraternity noticed that this habit would not be beneficial for the development of the instrument. This is where the call for standardization emerged. Standardization not only meant the layout<sup>3</sup> and physical arrangement of the instrument but also dealt with other manufacturing elements such as the material used and quality of tuning.

Standardization of the instrument meant that regional travel for musicians would cost-effective, pedagogical material would be standardized, doors would open for the introduction of the pan in schools, and the transition of a student from music rooms to the panyard<sup>4</sup> would be much smoother(Nathaniel 125). David Cuffy in April 1992 reported at a Caribbean Conference on Pan on the discussion of the standardization of the steelpan. Here he voiced the concerns at hand with the lack of standardization and the pros of moving in such a direction (Nathaniel 126). In this same year, a declaration was made for *Glossary of Terms Relating to the Steel Pan*.

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<sup>1</sup> Tamboo Bamboo is the precursor to the steel pan. An instrument made by cutting bamboo to varying lengths to create sound.

<sup>2</sup> Ping Pong is defined as a small handheld pan made from a biscuit tin to provide rhythmic music for pleasure during the early 1930s.

<sup>3</sup> Layout refers to the placement of notes on the steelpan.

<sup>4</sup> Panyard also referred to as pan tent is defined as the home or community space of steelband where the creation, rehearsal, and perfection of steelpan music takes place along with related activities and other events.

This document was done by Kenneth Roach and published by the Trinidad and Tobago Bureau of Standard which discussed the common terms associated with the steel band and steel bandsmen. Subsequently, further narratives and discussion began to arise surrounding the topic of standardization.

With the discussion of standardization along came the discussion of a patent. In 2000, Terry Joseph wrote two articles in the *Trinidad Express Newspaper* addressing the fight for a patent that would result in standardization and a common pan. Many attempts were made toward standardizing the steel pan through conferences and various meetings however there has been only a little progress as the topic of standardization is a sensitive one for the Steelpan Fraternity (Joseph 14). Currently, the 4<sup>th</sup> and 5<sup>th</sup> Tenor pan gained some form of standardization and has been accepted throughout the region and internationally (See APPENDIX A). In addition, the Bertie Marshall Double Tenor has become a prominent standard for Double Tenors pans. (See APPENDIX B)

Although there has been some attempt to seek standardization in the frontline pans <sup>5</sup> such as the Tenor, Double Tenor, and Double Seconds due to their prominence as solo instruments, the mid-range pans<sup>6</sup> have been neglected. This may be as the mid-range section is much smaller compared to that of the frontline pans. This study explores the reason for the absence of standardization in mid-range pans, attempts made to standardize, its hindrances, where it is currently, and the effect it has on steelpan players. Through this study, it is hoped to answer these questions and provide

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<sup>5</sup> Frontline pans are the steel pans in the section designed to play the melody ranging from E3 to G6. The instrument in this section may include the tenor pan, double tenor, second pan, and double seconds.

<sup>6</sup> The mid-range pan is the steel pan in the section designed to accompany the melody and harmony of the music. These instruments range from G2 to Bb5 and may include the guitar pan and quadrophonic pan.

some level of solution and understand how we can move forward to the standardization of these instruments.

## **RATIONALE**

The absence of standardization in mid-range instruments and its effects is an important issue as there is not adequate information currently available. On the topic of the absence of standardization in the steelpan, there is little to no information provided while there has been no study into the effects lack of standardization has on pan players.

Standardization is an important topic when discussing steelpan in the school curriculum and the production of pedagogy. Standardization aids in the smooth transition of students from the classroom to community bands<sup>7</sup>. On the topic of pedagogy, standardization allows there to be standard instructive material. The absence of standardization makes it difficult to produce pedagogy due to the variance in techniques.

As a pannist, whose preference of instruments in the steel pan family is mid-range pans: Double Guitars and Cellos<sup>8</sup> this is a subject matter close to me. On many occasions, I have witnessed the layout of the mid-range pan vary from steelband to steelband. Not only from band to band but variation in layouts within the same band. I have been frustrated while learning music from fellow bandmates due to the variations. With the new phenomenon of playing with multiple bands for the season, there can also be confusion in learning and remembering repertoire.

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<sup>7</sup> Community bands refer to steelbands that are formed within the various communities ranging from small medium or large categories.

<sup>8</sup> Cellos is the broad term used to address triple cello and four cello pans.

This study explores why these instruments have not been standardized and understanding the reasoning behind the current variations. In addition, it aims to understand what has hindered the movement towards standardization and how it has or continues to affect players. This information may assist in jolting further discussion for the standardization of mid-range pans and possibly find solutions for the absence of standardization. In addition, it would be beneficial to persons within a fraternity researching such a topic as information would now be available.

## **THESIS STATEMENT**

Factors that contribute to the absence of standardization are the variations in note placement, the physical arrangement of the steelpan, the placement of boreholes for hanging the pans, and players' re-arrangement of the instrument for ease of playing. These factors also impact players both physically and mentally.

## **PARAMETERS**

This study focused on the standardization of middle-range pans: Double Guitar, Four, and Three Cellos. Quadraphonic pans<sup>9</sup> are also categorized as middle-range pans; however, for this research, it is excluded as quadraphonic pans are generally standardized. When speaking about the standardization of the steelpan one takes into consideration the material used to produce the instrument, the way it is

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<sup>9</sup> Quadraphonic pans are defined as a set of four steelpan of augmented whole tone scales in the tenor to alto range which is designed mainly for counter melody but also for harmony and melody support.

made, its size and shape. However, this study will focus on the layout of notes, position of pans, and the placement of the ties when discussing standardization.

The information sourced on the standardization of these instruments will be from bands, tuners<sup>10</sup>, and other persons within the Steelband Fraternity of Trinidad and Tobago. The study will also deal with the standardization of these instruments within the school system and community steel orchestras.

## OBJECTIVES

The objectives of this study are to:

- Understand the hindrances in standardizing the steelpan.
- Examine the current progress of standardizing mid-range pans.
- Gain the perspectives of band section captains, tuners, and players on the topic.
- Gain the perspective of experienced steelpan tuners on the topic of standardization and its lack thereof.
- Examine how the absence of standardization affects players.

## METHODOLOGY

This Caribbean Studies Project was done using qualitative and quantitative research. These methods were chosen as the aim of the research is to pursue and obtain information on a topic without a predetermined outcome. A preliminary search

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<sup>10</sup> Tuners are defined as a person who manipulates or adjusts the notes, including the fundamentals and higher partials, on the steelpan to correct for uniform pitch by using hammering techniques based on an understanding of the mechanics and principle of pan building.

was done to find out what information already existed on the topic using the Google search engine. From here I was able to narrow in on some of the places I would have to seek information. Research began with finding out where we were currently concerning standardizing the steelpans. This information was collected through interviews and primary resources. Interviewed were Pan Trinbago Education Officer, Marcus Ash, and Patricia Adams of the Pan in Schools Coordinating Council. Further information was retrieved through files at the Pan Trinbago Office. Additionally, information was gathered in a lecture on Standardization done by Dr. Jeannine Remy which featured several guest speakers on the topic.

Next, I interviewed representatives for various small-medium and large conventional bands throughout Trinidad and Tobago. An attempt was made to contact bands from the North, South, Central, and East regions. Contacts for band personnel were sourced via personal contacts and further networking through contacts received. Initially, at least two bands from each region were contacted for interviews; however, some bands did not respond. Due to the COVID19 pandemic, bands were not in usual practice therefore, in persons visitations to bands to gather information were not possible. The various layouts of middle-range pans were collected through photos sent by interviewees and some in-person interviews; however, all bands were not able to provide images.

Successfully interviewed were personnels from the following bands: FCB Supernovas, Shell Invaders, BPTT Renegades, Pamberi Steel Orchestra, Desperadoes, Massy Trinidad All Stars Steel Orchestra, Caribbean Airlines Skiffle Steel Orchestra, Pan Elders, Melodians Steel Orchestra, Sangre Grande Cordettes, Fascinators Pan Symphony Steel Orchestra, Uptown Fascinators, Tobago Panthers, and Our Boys. Subsequently, interviews were conducted with tuners such as Roland Innis, Rolland

Harrigin, Kayle Noel, Jimi Phillip, Andy A. Neils, and Anthony Duncan. Interviews were conducted via Zoom Meeting, Facebook Messenger, Email, WhatsApp Messenger, and In-Person. (See APPENDIX C for Interview Transcriptions)

A Google Form questionnaire was distributed on steelpan platforms such as WhenSteelTalks and Women ofSteelTT Facebook Groups to gather information on the effects of the absence of standardization in midrange pans. This questionnaire was also posted on my social media platforms such as WhatsApp, Instagram, Twitter, and Facebook. The Questionnaire was shared on March 9<sup>th</sup>, 2021, and closed on March 26<sup>th</sup>, 2021. A total of 79 responses were collected from this survey; however, five respondents were unable to participate due to their geographical location, and two forms were left blank. As a result, there were only 72 usable questionnaires. (See APPENDIX D for sample questionnaire)

## **CHAPTER OUTLINE**

This study consists of three chapters. Chapter one focuses on the conversation of standardization in the steelpan fraternity highlighting its process, initiatives to standardize, and its hindrances. Chapter two focuses on mid-range pans and goes into analysis of the layouts used in steelbands throughout Trinidad and Tobago, exploring similar and different characteristics of each style presented. Chapter three presents and discusses the data collected in the survey on the effect the absence of standardization has on players.

## **LITERATURE REVIEW**

Currently, there are various publications related to the topic of standardizing the steelpan. Writings exist in the form of newspaper articles, journal articles, patent

applications and university research projects such as Caribbean Studies Projects and Dissertations.

The first publication which speaks directly to the standardization of the steelpan was done by G-Pan<sup>11</sup> innovator Brian Copeland in 1988 in *the West Indian Engineering Journal*. In 1988, Brian Copeland wrote *A Note on Standardization of the Steelpan* which addressed the standardization problem which he deemed to be "a stumbling block in the direct amplification of the instrument" (Copeland 89). In addition, Copeland gave a solution to the problem with diagrams and explanations to accompany. This solution would have changed the steelband family entirely. In the coming years, based on his research and presented a proposal, Copeland developed the G-Pan which succeeded the traditional fourths and fifths<sup>12</sup> tenor by extending the tones, amplification, and range by a vast difference. More about the G-Pan can be read about in Barry Mannette's Caribbean Studies Project: *The G-pan: A Quest for Standardization*. Mannette's Caribbean Studies Project also discussed the importance of standardizing the steelpan and the impact the G-pan has made in this venture (Mannette).

After Copeland, Kenneth Roach and Leslie Pichery became instrumental in pushing for the standardization of the steel pan at the Trinidad and Tobago Bureau of Standards (TTBS). In a Newsday Article, they addressed the urgency for a standard of the Steelpan, the process of how this would be undertaken, and the already begun initiatives for standardizing. Together they published and submitted the Imperative for Standardization, Results of the Steelband Survey 90, and the Glossary of Terms

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<sup>11</sup> G-pan or Genesis is defined as a series of steelpans comprising instruments made of larger drums covering the entire musical range of a steelband.

<sup>12</sup> The most common style of tenor pans used in the steelband fraternity.

Relating to the Steelpan. As a result of the 1990 Survey, it was “revealed that tuners were in the process of standardizing the steelpan” (Pichery 7). In 1992, a document called *Glossary of Terms Relating to the Steelpan* was submitted to the TTBS which outlines the terms commonly used with regards to the steelpan and steel bands.

Throughout the early 2000s newspaper articles were also published by Terry Joseph of the Trinidad Express on the topic of standardization and the narratives surrounding the process and how much of an asset the venture would be. In 2015, Pan Trinbago withdrew the 1992 document submitted to the TTBS with a new standard called *Steelpan- Terminology* which defined common terms related to the instruments, its manufacturing, personnel, performance, accessories, and facilities. In addition, visuals of the steelpan were provided for reference of the instruments. Although there were diagrams that suggested the layout for the Tenor and Double Tenor Steelpan, the document had not dealt with the note layout of the Double Seconds, Double Guitar, Quadraphonics, Cellos, or Basses.

There has also been student Caribbean Studies Projects which would have dealt with aspects of the standard of the steelpan. Toyanna Carlow wrote the *Organology of the Steelpan: Towards Standardization* which discussed the science behind the steelpan, the process of creating the instrument, and its step toward standardization. Also, it explored the advantages and disadvantages of standardizing the instrument and the opinion of steelpan players with regards to standardizing.

All sources discussed, in some way deals with some aspect of standardization however none of these has dealt with the study I am undertaking. Although these persons had publications and appeals for standardization, its support only occurred for some instruments of the steelpan family and not others. Specifically, not for the mid-

range pans and not for the layout of the instrument. In addition, not only is there a lack of publications but publications which exist are difficult to access.

## CHAPTER ONE

This chapter focuses on standardization within the steelpan fraternity and the attempts which have been made to standardize the instrument. It will highlight where we are currently with this initiative but more specifically where we are with the standardization of mid-ranges. In addition, the hindrances of standardization will be discussed.

To speak on the topic of standardization within the mid-range instruments we must first understand where standardization is within the steelpan family as a whole and what exactly standardization means within the steelband. “According to Alan Bishop, Standardization refers to the making of pans in one single design such that the placement of notes on any given pan would be in the same arrangement regardless of where the pan was made” (Nathaniel 127). The earliest official discussions for standardization would have started in the 1970s after the steelband rivalry which encouraged a lot of the variations in the layout of pans.

“Pan Pioneers, how steelbands were formed, it was gang-related my gang versus your gang versus his gang verses he gang and so it was going. Everybody had their own style and their own clique-ish<sup>13</sup> which they held on. When Highlanders, Bertie Marshall created his double tenor or when

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<sup>13</sup> Clinque-ish refers to cliques.

Despers<sup>14</sup> created their Quads<sup>15\*</sup>...Anthony Williams created the spiderweb pan those things were unique to those bands. (Ash)

Out of the Steelband, rivalry came many variations as tuners competed against each other to have the best sound as well as deter other bands from stealing music. As a result, many variations and innovations came into existence which was not beneficial to the movement (Batson 28).

## **1.2 The Timeline of Standardization.**

The Standardization process began in the early 1970s to early 2000s. During this period there were various conversations on the topic of why it should and should not be done as well as the progress in pushing to standardize the instrument. Figure 1. Shows the timeline for standardization during this period. (For a more detailed explanation of this timeline see APPENDIX E)



Figure 1. Timeline of Standardisation from the 1970s to early 2000s

Source: Timeline created by Nicholan Garcia

<sup>14</sup> Despers short term used to refer to Desperadoes Steel Orchestra.

<sup>15</sup> Quads is another term indigenous to All Stars Steel Orchestra to refer to their Four Cellos. The term Quads is also the short term used when referring to Quadrophonic pans.

After the early 2000s, apart from the initiative by the Pan in School Coordinating Council (PSCC), the discussion to standardize or patent the instrument indigenous to Trinidad and Tobago went unspoken of until 2015.

### **1.3 The Re-kindling of Standardization.**

Conversations of a standard for the steelpan resurrected under the leadership of then Pan Trinbago President, Keith Diaz. The main intent of the standard was to seek certification for steelpans made in Trinidad and Tobago to allow buyers to identify the instruments as a product of Trinidad and Tobago. Moreover, to have pan manufactures use the "special steel" obtained by Pan Trinbago to produce pans. However, this idea was abandoned as certification must be done to a standard where all pans are manufactured by the special steel (Williams). This resulted in a specification committee being put together to begin the process towards a standard.

Chairing the committee was Prof. Clement Imbert of the Faculty of Engineering, UWI, Mr. Ian J Clarke of The Division of Culture, Ministry of Arts and Multi-Culturism, Patricia Adams of the PSCC, Fitzroy Henry and Denzil Fernandez of the Steelpan Tuners Guild of Trinidad and Tobago, Keith Bryer from Diatonic Pan Institute, Nestor Sullivan of Pamberi Steel Orchestra, Melville Bryan and Selwyn Tarradath of Pan Trinbago, Nkechi Williams of TTBS, Simeon Sandiford of Sanch Electronics Limited, Micheal Cooper of Panland Trinidad and Tobago<sup>16</sup> and Prof. Brian Copeland of the Faculty of Engineering, UWI. (Pan Trinbago)

There were email conversations and meetings held from the 14<sup>th</sup> of November 2014 to the 2<sup>nd</sup> of June 2014 to discuss creating a new standard for the steelpan. In these meetings, the committee dealt with creating the draft for the standard, the

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withdrawal of the 1992 version, and the terms of the standard. From these meetings the committee also opted to have visual representations of the instrument included. The draft of the standard was open for public comment from March 25<sup>th</sup>, 2015 – to May 28<sup>th</sup>, 2015. After this, there was one more meeting to review the public comments and finalize the standard for approval by the TTBS Technical and Marketing Committee. On July 2<sup>nd</sup>, 2015, the standard was approved by the TTBS Board of Directors. However, the standard had only dealt with the terminology for the instrument and not the layout and arrangement of the instrument (See APPENDIX F).

#### **1.4 Initiatives to Standardize.**

Over the years, there have been initiatives to bring some sense of standardization to the steelpan community. According to Pan Trinidad Education Officer, Marcus Ash, the G-Pan and Phi Pan were both created and patented to give Trinidad and Tobago its sense of ownership for the steelpan (See APPENDIX G). In addition to this, there has been the standardization of inst instruments within the school system (Ash). Through the PSCC an initiative by a group of teachers who were associated with steelbands there has been a successful attempt to standardize the instrument. The main goal of the committee was to the steelpan into the school system; however, to do this the instrument would need to be standardized to some extent.

Within the school system, specifically, the primary school sector one can walk into any music room across the country find pans with the same note layout and the physical arrangement of the pans. The process of standardizing the pans was a tedious one which involved many discussions with tuners and the PSCC to finalize the layout of the instrument and structures of the pans in schools. These pans were created with

the idea of learning the instrument ease for the students even if they had never been introduced to the steelpan before or only introduced to the tenor pan (Adams). As a result of this initiative, the committee was able to settle on a layout for the instrument with a specification for its production that would be given to the pan builders and tuners. (See Appendix H)

Not only did the standardization of the instrument in schools make them for the ease of playing but it also aided in allowing steelpan competitions in the school sector to be more time-efficient. In the Junior Panorama Primary school category, the results of the efficiency have been seen with this category being completed in record time. All bands in the Primary category can use the same pans that are set on stage. (Ash).

### **1.5 The Hindrance of Standardization**

There have been various hindrances of standardization; however, the most prominent hindrances are the identity of bands, the financial cost standardization would place on the steelbands, and the fear of closing the door steelpan innovations. The loss of steelband and tuner identity is one of the leading factors for the absence of standardization in the steelband family. Founding steelbands which are the known popular large bands today all have their distinctive sound which is based on the layout of pans in the band, the method of tuning, and the material used to make the pans. According to Marcus Ash:

The differences just like the differences of races, ethnicities, and cultural backgrounds in Trinidad is what make us unique as a country and is what makes this instrument unique. This instrument this instrument is literally a

reflection on society of what we are as a country. Standardizing will make thing easier; however, I appreciate that diversity we have. (Ash)

Someone can identify bands by the color and sounds of their pans and this is all influenced by the tuners' style or various innovations. There is also the issue of tuners' opposition in changing their method of steelpan making and tuning.

On the other hand, there is the financing of standardization. Mia Gormandy-Benjiman and Marcus Ash both expressed how finance plays a major part in standardizing and how it is a hindering factor. For some bands, this may not be an issue as they would purchase pans yearly and when making new purchases they can easily switch to the new standard. However, these are bands that may have sponsorships that can allow such commodities. There are bands without sponsorship that may not be able to make the new purchases. If standardization is to take place there would need to be a period of transition as bands would not be able to all jump on board at once. Though, this comes back to the issue of some bands lacking the finance to transition which nonetheless, results in a lack of standardization.

The one hindrance which makes the topic of standardization a sensitive one for most has been the argument of the process closing the door on developments and innovations for the steelpans. According to Anthony Duncan of the Tuners Guild of Trinidad and Tobago, "there is still much experimentation that can be done" (Duncan)

## CHAPTER TWO

### 2.1 The Historical Background of Mid-Range Pans

The inclusion of mid-range pans in the steelpan family date back to the mid-1940s. Between 1945-1949, Neville Jules added the guitar pan to his family of steelpan innovations. Jules took inspiration for this pan from the Cuatro<sup>17</sup> which he heard in a parang band<sup>18</sup> that would practice on Duke Street (Rennie). He first called the innovation the Cautro Pan (See APPENDIX I ) as it was created to mimic the strum of the Cuatro. Later, someone by the name Boots Davidson would rename the instrument guitar pan a name that stuck (Rennie). In the 1950s brought forth the most development for mid-range pans with the introduction of the Double Guitar in 1954 to replace the Double Tune Boop (See Figure 1.) and Cello (See Figure 2.) by Ellie Mannette (Rogers).

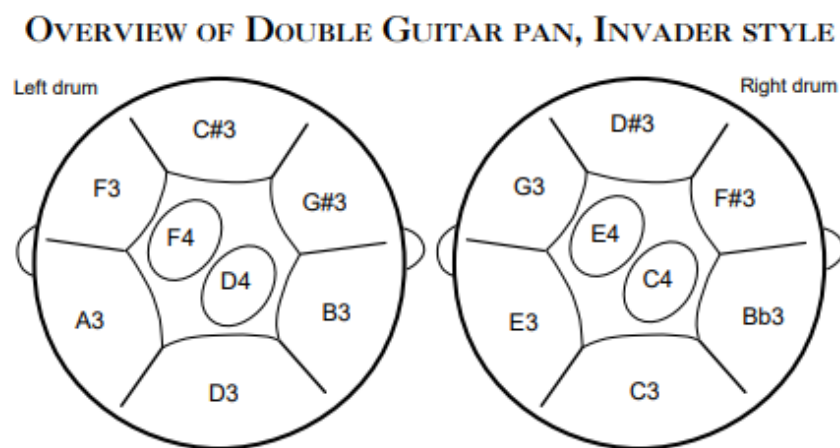


Figure 2. Invaders Style Double Guitar by Ellie Mannette.

Source: Kronman, Ulf. "Steel Pan Tuning: A Handbook for Steel Pan Making and Tuning." First Edition, K-tryek, 1992. Stockholmsteelband, p 132, <http://www.stockholmsteelband.se/pan/tuning/pdf/pantuning.pdf>

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<sup>17</sup> Cuatro Definition

<sup>18</sup> Parang Band

Mannette's Double Guitar expanded the range of the guitar pan to C3 up to F4 widening the variety of chords that can be used within an arrangement. According to Ulf Kronman, "the guitar pan is mostly used as a rhythm instrument, playing chords, in the same way as an ordinary guitar in an orchestra" (Kronman 132). In 1956, Mannette also built the Triple Guitar 19 which expanded the range to B2 -C#2.

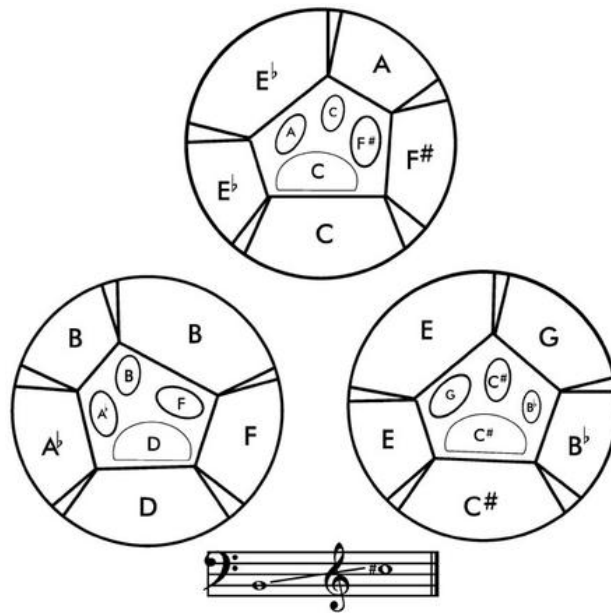


Fig 3. Ellie Mannette's Triple Cello.

Source: <http://www.mannetteinstruments.com/classical-series.html>

The cello was innovated to "provide harmonic support, countermelodies and may sometimes take up melody lines as well" (Thomas.S). These were the first pans that opened the doorway for the expansion of the mid-range pans used in the conventional steelband.

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19 According to Mannette Instruments. Triple Guitar uses the same layout as the Triple Cello; however, the skirts are shorter, and it is tuned darker than the triple cello pans. The triple cello has longer skirts and is tuned brighter.

## 2.2 The Analysis of Mid-Range Pans

To understand the absence of standardization we must first analyze the current layout which exists in mid-range pans. This will be reviewed respectively Double Guitar, Three Cello, Four Cello looking at the layouts from various bands.

According to Jeannine Remy, Ellie Mannette is credited as the innovator of the Double Guitar but other sources credit Jonathan Francis (Thomas.S). There is no evidence to back up this claim, however, this is so as various pan builders would have been experimenting with the new innovations at the time and during this time information was not documented. As we examine the following Double Guitar pans, we notice some similarities but also distinct differences. The Invader's style Double Guitar (See Figure 4.) and the Rudy Smith (See Figure 5.) both consist of 8-notes per pan, however, vary in range and note placement. The Invaders-style guitar goes from C3 to F4 with no pattern within the placement of notes.

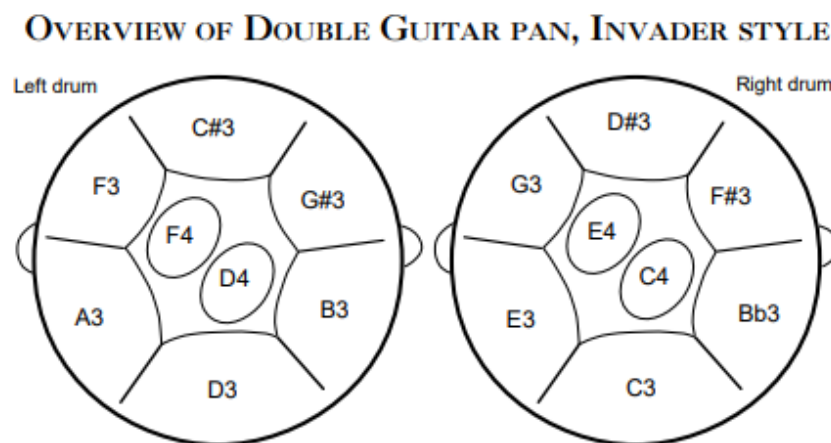


Figure 4. Ellie Mannette, Invader Style Double Guitar

Source: Kronman, Ulf. "Steel Pan Tuning: A Handbook for Steel Pan Making and Tuning." First Edition, K-tryek, 1992. Stockholmsteelband, p 132, <http://www.stockholmsteelband.se/pan/tuning/pdf/pantuning.pdf>

Whilst the Rudy Smith Style Double Guitar goes from D3 to F4 and is designed with notes “consequently in drums left-right-left on a chromatic scale in the same way as the double seconds pans” (Kronman 132).

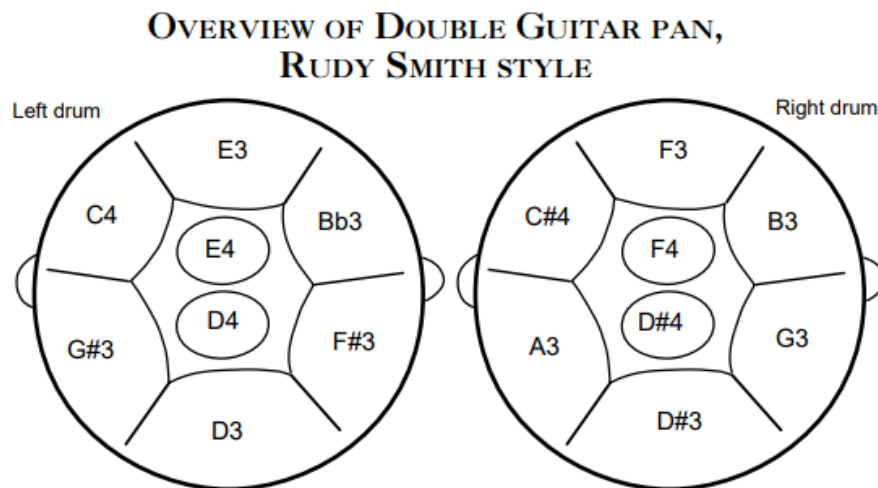


Figure 5. Rudy Smith Style Double Guitar.

Source: Kronman, Ulf. “Steel Pan Tuning: A Handbook for Steel Pan Making and Tuning.” First Edition, K-tryek, 1992. Stockholmsteelband, p 132 <http://www.stockholmsteelband.se/pan/tuning/pdf/pantuning.pdf>

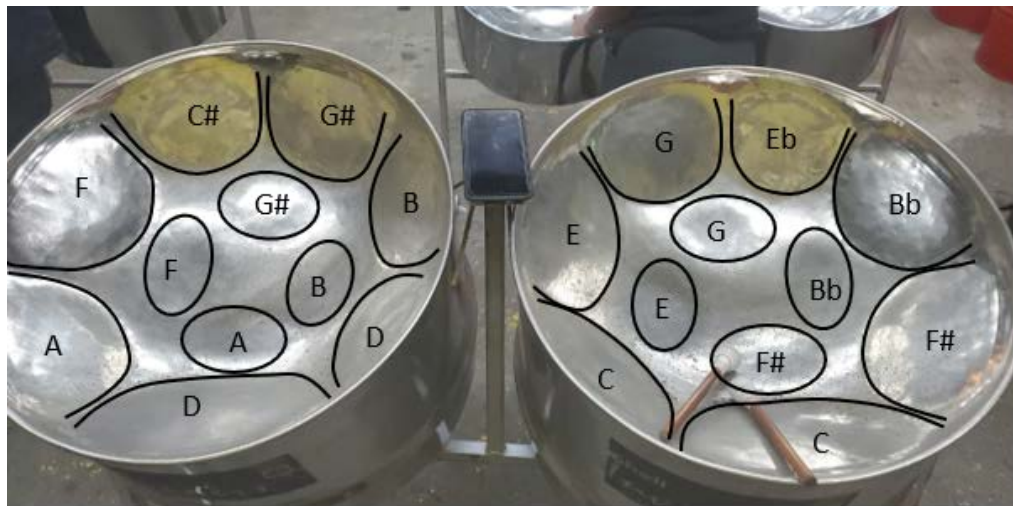
As we move forward we see other styles of Double Guitars which extend the pan's range by placing more notes on the surface area. There is a Double Guitar made by an unknown builder (See Figure 6) and a Double Guitar layout currently used at Shell Invaders (See Figure 7). Similarly, both pans have 11-notes per pan and they have almost the same range.



*Figure 6. Double Guitar Steelpan by Unknown Pan Builder,*

*Source: <https://pan-mag.com/basics-of-steelpan-instruments-in-the-steel-orchestra/>*

Figure 6 goes from C3 to A4 whilst Figure 7 has a range of C3 to B4. However, the pans do vary in pitch range and sticking techniques. Figure 6 has a chromatic scale that almost covers two octaves using the left-right-left sequence like the double seconds. The layout also seems to imitate that of a Double Second pan. The current Invaders style has almost two octaves with chromaticism beginning from F4. In addition, while playing a chromatic scale, there is double sticking in one pan between F#3 and G3 in the right pans as well as C#4 and D4 in the left pan.



*Figure 7. Double Guitars used by Shell Invaders.*

*Source: Myers, Desiree. Photograph. 03 Mar 2021. JPEG file.*

*Illustrated by Nicholan Garcia*

Next, there is the PSCC Style Double Guitar also considered the Desperadoes Style Double Guitar, which fully emulates the layout of a Double Seconds pan (Duncan). The pans in middle range pans have similar layouts to front line pans to make students transition to other pans smooth even if they have never been exposed to them.

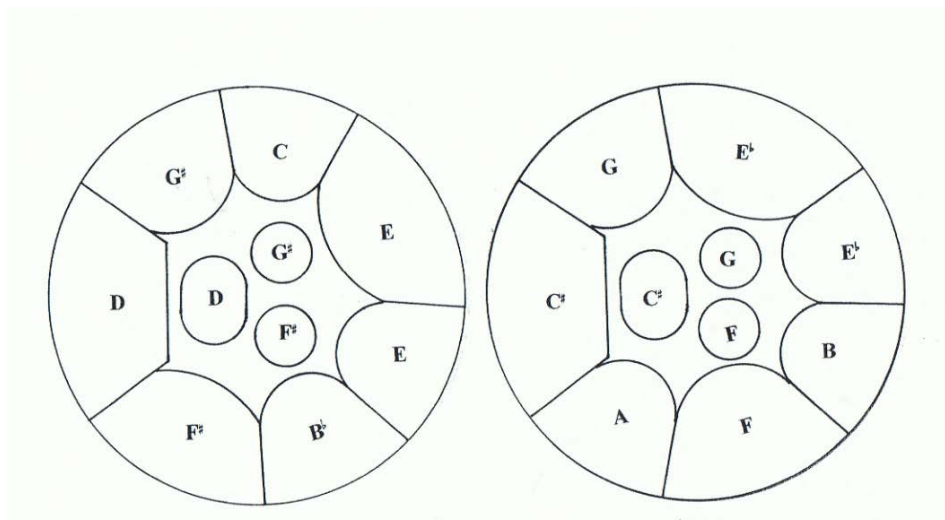


Figure 8. PSCC Double Guitar Style.

Source: Adams, Patricia. Diagram. 01 Mar 2021. JPEG file.

This Double Guitar ranges from C#3 to G#4 which is a smaller range compared to the past two styles; however, it is fully chromatic utilizing the left-right-left sticking technique. Lastly, there is an unnamed Double Guitar style that seems to be the most common among bands. Just like the PSCC Double Guitar, it goes from C#3 to G#4.

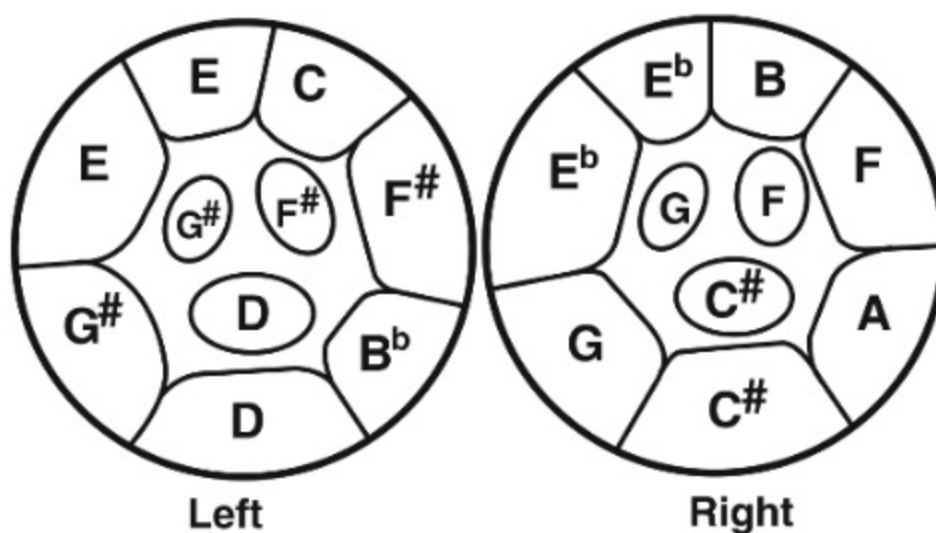


Figure 9. University of the West Indies Double Guitar.

Source: Remy, Jeannine. "Standardisation of Pans" MUSC 2008: Steelpan History and Development, 10 Mar 2021 University of the West Indies. Microsoft PowerPoint Presentation.

Its layout is also consistent with the PSCC Double Guitar however, the right pan is rotated 90 degrees anti-clockwise while the left pan notes are switched around a bit. In addition, the notes E and C have switched positions in the left pan putting C next to F# and E next to G#. The following figures 10- 13 show the pans used in various bands which are all the same proving to be the most common layout.



Figure 10. Double Guitar Layout used at Pan Elders

Source: Emerson, Joseph. Photograph. 20 Mar 2021. JPEG file.

Illustrated by Nicholan Garcia.

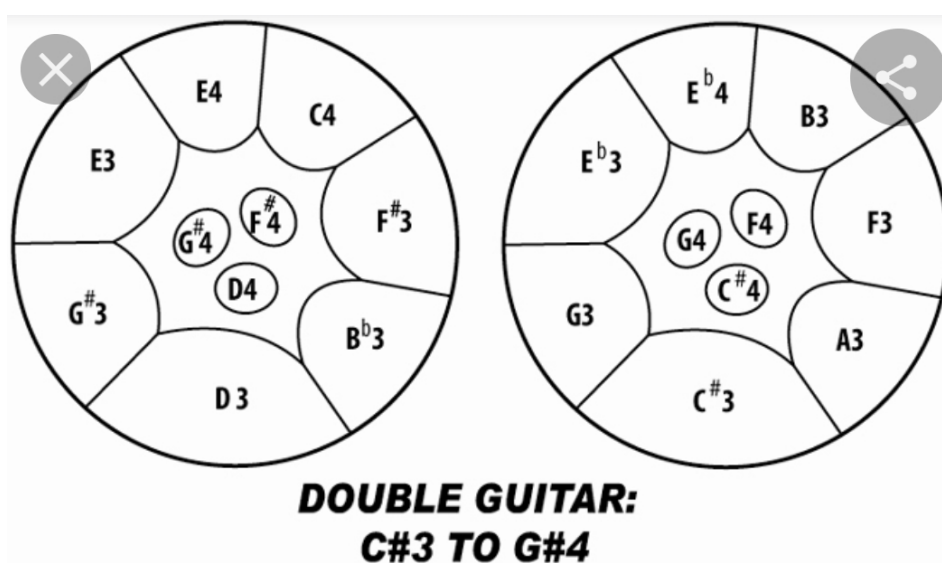


Figure 11. Double Guitar Layout used at FCB Supernovas.

Source: Samaroo, Amrit. Diagram. 25 Mar 2021. PNG file.

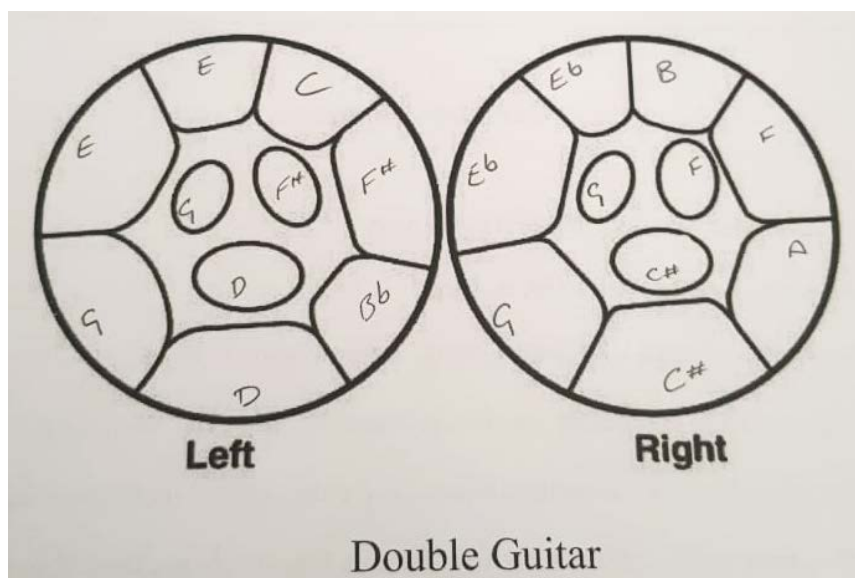


Figure 12. Double Guitar Layout currently used at Tobago Panthers.

Source: Brian Thomas. Photograph. 18 Mar 2021. JPEG file



Figure 13. Double Guitar Layout Used by Sangre Grande Cordettes

Source: Garcia, Nicholan. Photograph. 12 Mar 2021. JPEG file. Illustrated by Nicholan Garcia

Succeeding the Double guitars were the Triple Guitar and Triple Cello. According to the Mannette Instruments website classical collection, the Triple Guitar and Triple Cello had the same layouts but were tuned differently with the Triple



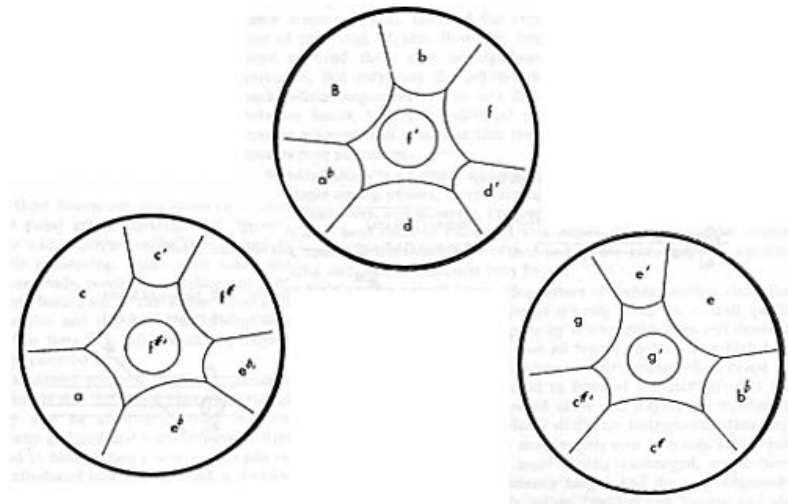


Figure 15. Tripoli Style Cello.

Source: Thomas, Jeffery Ross "Steel band/Pan" *Encyclopaedia of Percussion*. John Beck. New York: Garland Press, 1995. p. 318

This Three Cello has the smallest of all ranges going chromatic from B2-G4 with seven notes per pan. The sticking technique for the chromatic scale of this pan is a left-right-center sequence.

Similar to the Tripoli is the Cliff Alexis Style Three Cello (See figure 17) which also utilizes the seven-note per pan range and Ellie Mannette's diminished chord layout: B dim, C dim, and C# dim. However, Alexis has two notes in the center compared to one and the sticking techniques differ due to the physical arrangement of

pans. The Tripoli has the C dim pan to the left whilst Alexis Style is center. As a result, it uses a center-right-left chromatic sequence.

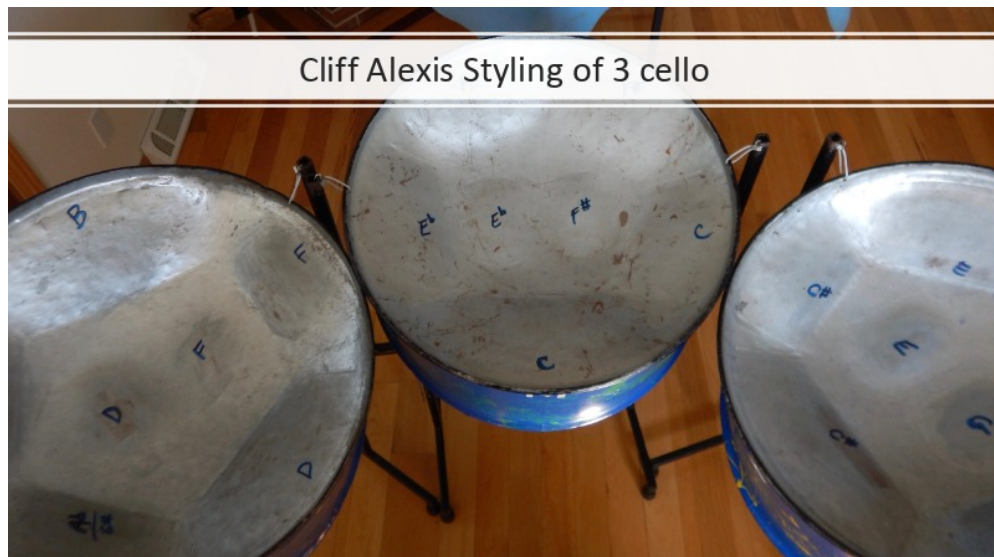


Figure 16. Cliff Alexis Style Three Cello.

Source: Remy, Jeannine. "Standardisation of Pans" MUSC 2008: Steelpan History and Development, 10 Mar 2021, University of the West Indies. Microsoft PowerPoint Presentation.

Alternatively, there was the widening of the range with the introduction of Three Cellos with 8-notes per pan. This carried its range to B<sub>2</sub>- B<sub>b</sub>4 however, some styles would start at B<sub>b</sub>2 and go as high as C#5. Figures 18 and 19 show pans that both utilize the average range. Similarly, these pans utilize the left-center-right (L-C-R) sequence for the chromatic scale. This is because the pans are arranged the same physically: B dim (left) - C dim (center) - C# dim (right) but one would notice that the physical placement differs. This is a common occurrence throughout Three Cello pans.

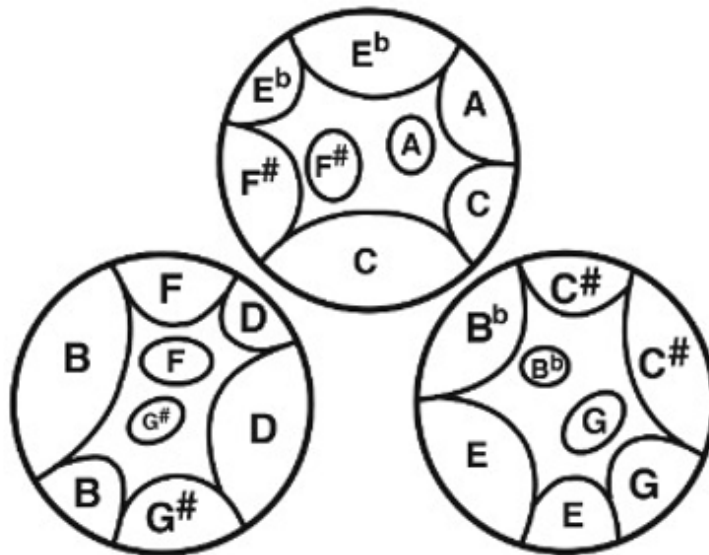


Figure 17. University of the West Indies Three Cello.

Source: Remy, Jeannine. "Standardisation of Pans" MUSC 2008: Steelpan History and Development, 10 Mar 2021, University of the West Indies. Microsoft PowerPoint Presentation.

The physical arrangement of the pans tends to change the chromatic sequence of the pans which we see in varying bands. The placement of boreholes also contributes to this.

Figure 18. Three Cello Layout at Melodians Steel Orchestra

Source: Kistow, Riekel. Diagram. 16 Mar 2021. PNG file.

Conversely, Figures 20 and 21 show a varying physical setup of the three cellos.

Figure 20 is arranged (left-right) C3 dim-B dim- C dim however it stills uses the L-C-

R sequence because of its extended range to Bb2. Figure 21 on the other hand is set up C dim- C# dim- B dim. Which results in an R-L-C chromatic sequence.

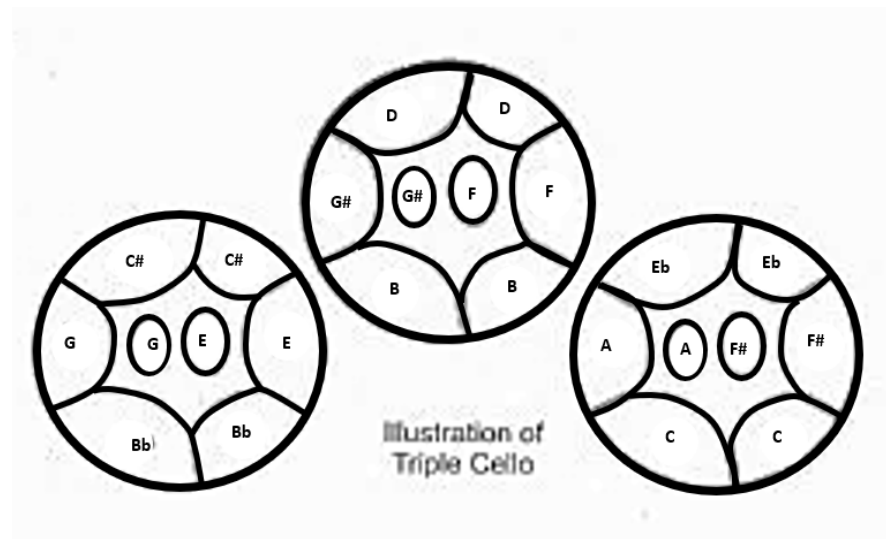


Figure 19. Trinidad and Tobago Pan Works Limited Three Cello.

Source: Remy, Jeannine. "Standardisation of Pans" MUSC 2008: Steelpan History and Development, 10 Mar 2021, University of the West Indies. Microsoft PowerPoint Presentation.

Figure 20. Massy All-Stars Three Cello Layout.

Source: Jack, Petal. Photograph. 16 Mar 2021. JPEG file.

Yet again, there is an extension of range by adding more notes to the surface area.

There are now three cellos with three notes in the center of the pan which results in 9-

notes per pan three cellos. The averages range of these are B2 -C5 however some styles go to Bb2 and some go up to C#5. The Rudy Smith Three Cello (Figure 21), Pan Elders Style Three Cello, and PSCC Three Cello are very similar as they all have a range of B2-C#5. In addition, they are set up B dim-C dim -C# dim and utilize the L-C-R chromatic sequence. However, the physical placement for the notes of these pans all varies when compared together which is a minor but significant change for the player using muscle memory.

### OVERVIEW OF THE TRIPLE CELLO PAN

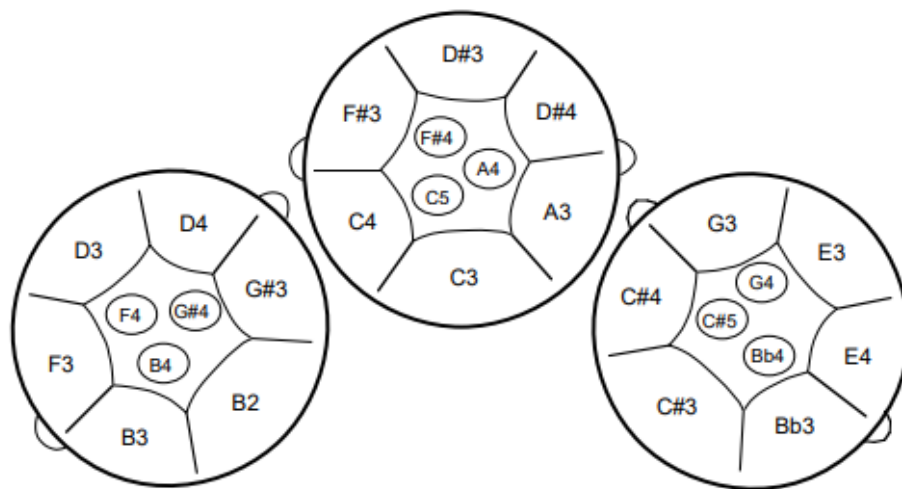


Figure 21. Rudy Smith Style Three Cello.

Source: Kronman, Ulf. "Steel Pan Tuning: A Handbook for Steel Pan Making and Tuning." First Edition, K-tryek, 1992. Stockholmsteelband, p 132 <http://www.stockholmsteelband.se/pan/tuning/pdf/pantuning.pdf>



Figure 22. Pan Elders Three Cello Layout.

Source: Emerson, Joseph. Photograph. 20 Mar 2021. JPEG file.

Illustrated by Nicholan Garcia.

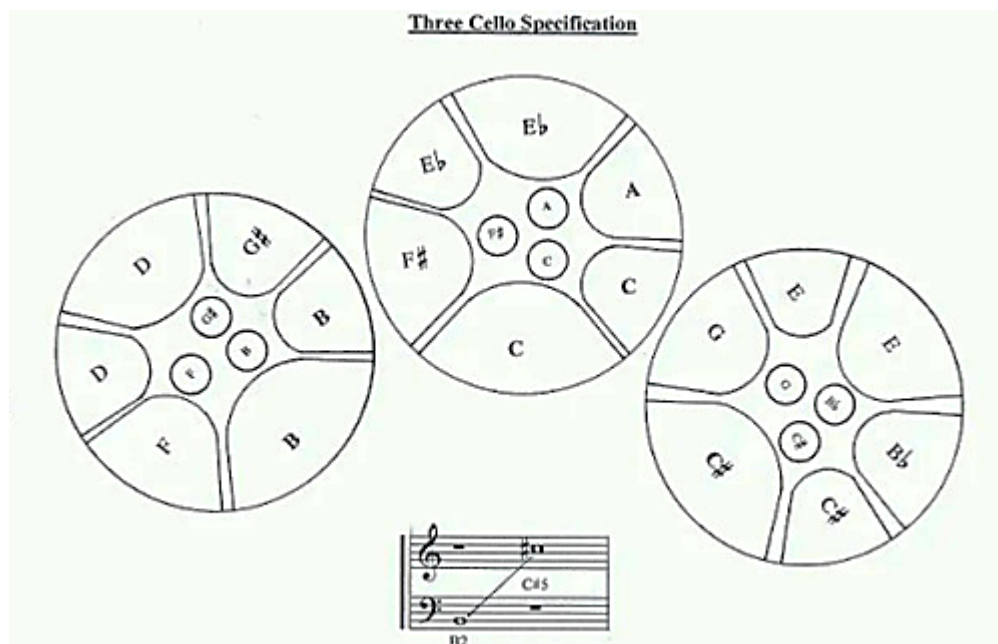


Figure 23. PSCC Style Three Cello.

S Source: Adams, Patricia. Diagram. 01 Mar 2021. JPEG file.

The Three Cello used at Sangre Cordettes is similar in setting up however varies in chromatic scale sequence using a C-R-L sequence and has a range of B2-C5. Also, the placement of notes varies to the other styles.



Figure 24. Three Cello Layout Used by Sangre Grande Cordettes.

Source: Garcia, Nicholan. Photograph. 12 Mar 2021. JPEG file. Illustrated by Nicholan Garcia

Lastly, there are the FCB Supernovas (Figure 25) and BPTT Renegades (Figure 26) styles of Three Cello. Of all the Three Cello styles they vary most from the previous styles as well with each other. They both begin their chromatic scale on Bb2 however figure 25 goes up to C5 whilst figure 26 goes C#5. Similar they are set up B dim - C dim - C# dim however they use different chromatic sequences from each other. Figure 25 uses an R-L-C chromatic sequence and Figure 26 used a C-L-R chromatic sequence.

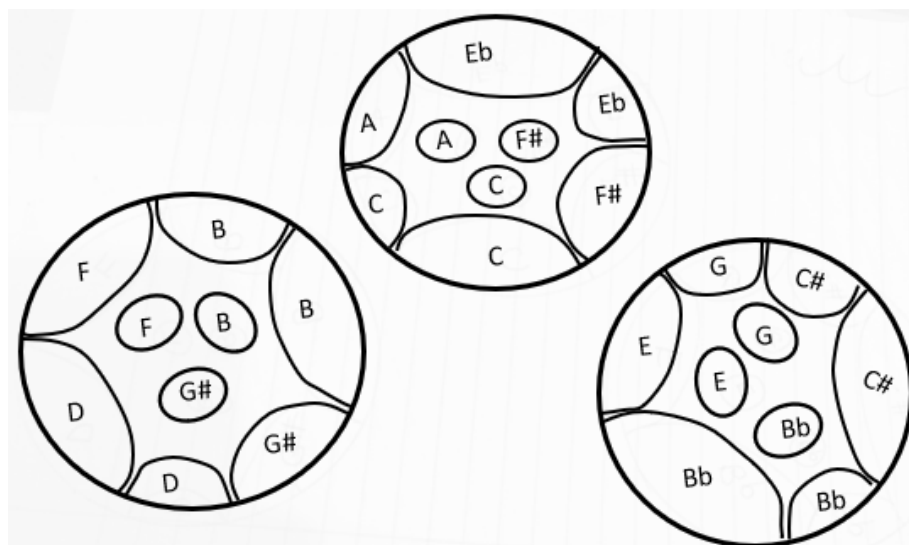


Figure 25. Diagram of Three Cello Layout used by FCB Supernovas.

Source: Samaroo, Amrit. Diagram. 25 Mar 2021. PNG file. Illustrated by Nicholan Garcia

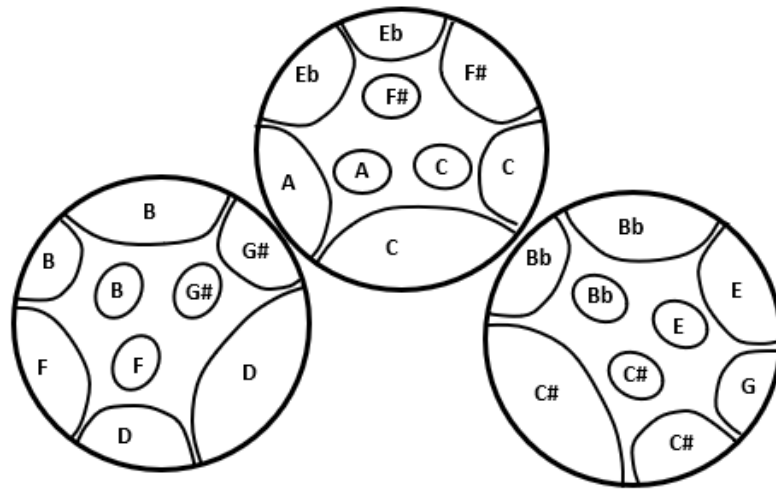


Figure 26. Three Cello Layout Used by BPTT Renegades.

Source: Franklin, Aaron. Diagram. 22 March 2021, JPEG. Illustrated by Nicholan Garcia

The Four Cello is the final member of the mid-range family and just like the Three Cello has varying names from band to band. Some band refers to the pans as Quads or Four Pan, however, for this study will be referred to Four Cello. There is no distinctive date for the innovation of the Four Cello or a credible source for its innovator. However, this is a variation of the traditional Three Cello to extend the pan's range.

The first Four Cello styling featured is from Clifford Alexis (See Figure. This style has six notes per pan with one note in the middle and is laid out in augmented chord style. It ranges from B2-A4 and is set up Bb augmented (1. Left Back) – C augmented (2. Left Front) – Eb augmented (3. Right Front) A augmented (4. Right Back). The chromatic sequence for this Four Cello would be RB-RF-LF-LB.



Figure 27. Cliff Alexis Style Four Cello

Source: Remy, Jeannine. "Standardisation of Pans" MUSC 2008: Steelpan History and Development, 10 Mar 2021, University of the West Indies. Microsoft PowerPoint Presentation.

Like the Cliff Alexis Style, the Shell Invaders Four Cello (See Figure 28) and FCB Supernovas (See Figure 29) are augmented. Both similar in style, note placement and range as both bands hold the same supplier. Both Amrit Samaroo of FCB Supernovas and Desiree Myers of Shell Invaders stated that their pan tuner/builder is the renowned Bertrand Kelman. As a result, both bands carry a range of A2-C5; however, the physical arrangement and boreholes placement differ. Figure 28 is arranged C augmented – Eb augmented – A augmented – Bb augmented while Figure 29 is Bb augmented – C augmented – A augmented – Eb augmented. As a result, Figure 28 has an RF-RB-LF-LB chromatic sequence whilst Figure 29 has an RF-LB-RB-LF chromatic sequence.



Figure 28. Four Cello Layout used by Shell Invaders.

Source: Myers, Desiree. Photograph. 03 Mar 2021. JPEG file.

Illustrated by Nicholan Garcia

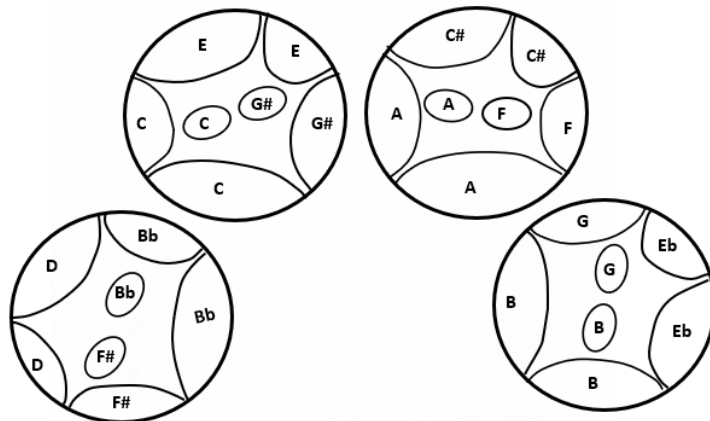


Figure 29. Four Cello Layout used by FCB Supernovas.

Source. Amrit Samaroo Illustrated by Nicholan Garcia

Conversely, there is the Fourths and Fifths layout of Four Cello's where each pan possesses notes that are related intervallic in fourths or fifths similar to the Tenor pan. This style of Four Cello is used in the Education System because it would be easier for a student to transition from a Tenor to Four Cello (Adams). Figures 30 -31 are all similar as they all have a range of A2-C5 and are physically arranged the same, C G D – F# C# G# - Eb Gb F- A E B. However, variations are seen in the physical placement of notes and the placement of boreholes

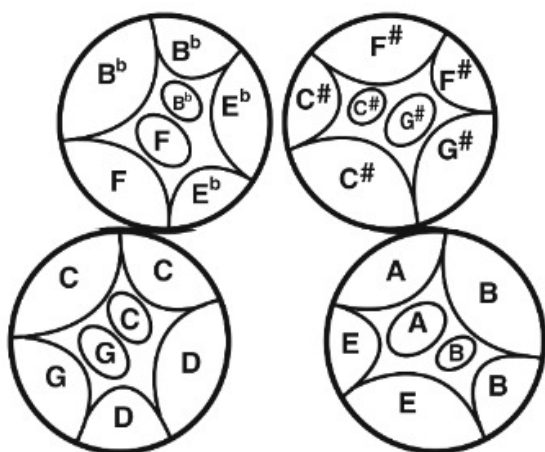


Figure 30. Four Cello Layout used by University of the West Indies

Source: Remy, Jeannine. "Standardisation of Pans"  
MUSC 2008: Steelpan History and Development, 10 Mar  
2021 University of the West Indies. Microsoft  
PowerPoint Presentation.

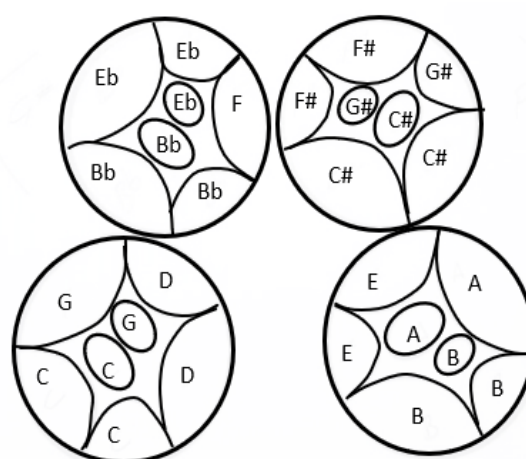


Figure 31. Four Cello Layout used by Tobago Panthers

Source: Brian Thomas. Photograph. 18 Mar 2021.  
JPEG file

Figure 32. Four Cello Layout used by Massy All-Stars

Source: Jack, Petal. Photograph. 16 Mar 2021. JPEG file.

Alternatively, Sangre Grande Cordettes (Figure 33) is similar in range and layout style but varies in its physical arrangement as it set up F# C# G# - A E B – Eb Bb F – C D G. Pan Elders (Figure 34) also uses the fourths and fifths layout but vary in ranges from A2-C5 and its physical arrangement varies as its C G D – F# C# G# - Eb Bb F – A E B. No Chromatic

sequence was mentioned for this style as does not allow one to exist because of the spread of the notes.



*Figure 33. Four Cello Layout used by Sangre Grande Cordettes.*

*Source: Garcia, Nicholan. Photograph. 12 Mar 2021. JPEG file. Illustrated by Nicholan Garcia*



*Figure 34. Four Cello Layout used by Pan Elders*

*Source: Emerson, Joseph. Photograph. 20 Mar 2021. JPEG file.*

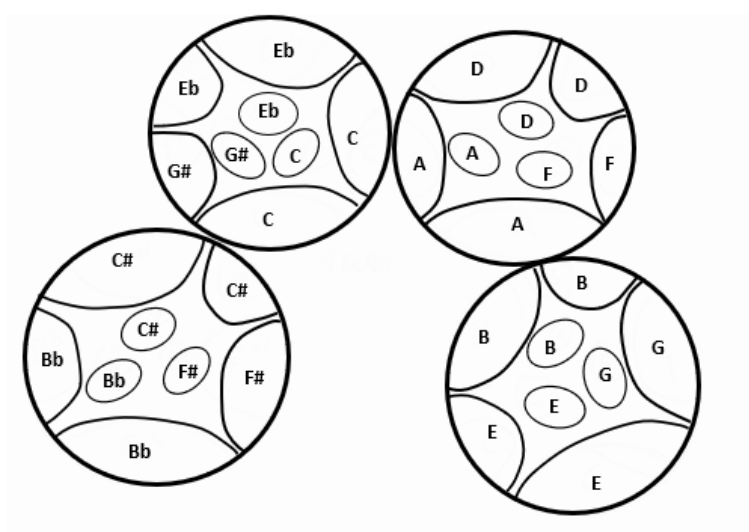
*Illustrated by Nicholan Garcia.*

Yet again, there is another variation in the Four Cello Styles that can be considered thirds as the pans are layout in major and minor chords. Melodians Steel Orchestra (See Figure 35)

and BPTT Renegades (See Figure 36) utilize this layout style. Similarly, to the fourths and fifths styles, it possesses no chromatic sequence. Both Figure 35 and 36 vary in range as the latter has a range of A2-C5 while Figure 36 goes from A2-E5. They also vary in the physical arrangement as Figure 35 is set up Gb Maj – D min – E min – Ab Maj whilst Figure 36 is arranged Gb Maj – Ab Maj – E min – D min.

*Figure 35. Four Cello Layout used by Melodians Steel Orchestra*

*Source. Kistow, Riekell. Diagram. 16 Mar 2021. PNG file.*



*Figure 36 Four Cello Layout used by BPTT Renegades*

*Source: Franklin, Aaron. Diagram. 22 March 2021. JPEG. Illustrated by Nicholan Garcia*

## **2.3 The Absence of Standardization**

There are several factors for the absence of standardization in mid-range pans that we can see through its analysis but why is this? According to tuner Andy A. Neils, there has been the variation due to innovators working in their own space without collaboration from other tuners.

There are many variations of the middle range pans because tuners worked independently, so when the word of middle pans went around, every tuner was creating his very own version of what they think it should be. (Neils)

Steelpan builder/Tuner Kayle Noel, like Neils, expressed that variation of notes came with tuners experimenting with the note placement for extended range on the pans. Moreover, band identity plays a big part as bands to be distinct from each other. Kayle Noel shared:

You could have known the band that was coming up the street, you could have closed your eyes, listen, and could have tell yourself, 'Aye, that's Despers.' Even up to this day... and why? The mids. Because of the placement of notes on the mids-pans, the harmonic tuning, and the octave tuning it's actually because of where the notes line up, it corresponds to the next note [to create sound] Take for example, the tenor pans. There is the Low C style tuned in 5ths which means C is in the middle of G and F compared to a tenor tuned in 3rds with C next to E and F. When the notes on these pans are struck, they would vibrate and tend to both give a different color because of the layout and tuning.(Noel) (See APPENDIX J for comparison of thirds and fourths style tenor)

On the other hand, Tuner/steelpan innovator Jimi Phillip and steelpan builder/tuner Roland Harrigin explained that the lack of standardization arose with bands wanting extended ranges from the mid-range pans. On the flip side, the person interviewed from various bands

stated that variation in layouts occurred because of tuners having their style of the instrument or arrangers requesting a particular range from the mid-range pans. Apart from these factors, tuner Roland Innis stated that the lack of standardization arose from players re-arranging the setup of pans to their preference for ease of playing. This is one of the prevailing factors which I have noticed during this study. Through interviews with band representatives' persons have expressed that sometimes players would request to physically rearrange the pans for ease of playing

Through the analysis of the mid-range pans, it is visible that some aspect of standardization exists. For instance, Double Guitars use the left-right chromatic sequence similar to the Double Seconds pans whilst all three cellos use the diminished style, and four cellos are either augmented or in fourths and fifths. However, the overriding issue is the variation in note placement and in some cases the placement of boresoles to hang the pans which result in notes being in varying positions compared to another pan. This varies not only from band to band but sometimes within the same band and sometimes on the same pan. Figure 27 shows an example of a pan that has varying boresoles and varying length tie straps which result in what can be an uncomfortable setup.

*Figure 37. Front View of Four Cello at Sangre Grande Cordettes.*

*Source: Garcia, Nicholan. Photograph. 12 Mar 2021. JPEG file. Illustrated by Nicholan Garcia*

## **2.4 Current Stance of Standardization**

Currently, some bands have been moving towards having a standard for their band. Some bands such as Trinidad Massy All-Stars Steel Orchestra, FCB Supernovas, Shell Invaders, Pamberi, and Uptown Fascinators keep one physical arrangement for their instrument and discourage players from re-arranging set up. Tobago Panthers has been using the PSCC style of steelpans as they have a high influx of junior players who come from the school system.

Band Representatives and Tuners alike have expressed their stance on Standardization. Some people agree with the need for standardization while others may not see it as quite necessary outside of the education system.

Renegades Mid-Range Section Leader, Aaron Franklin states:

Standardization would make the thing so much easier... standardization would eradicate a lot of problems within the fraternity. Cause you don't know what bands have, what types of pans you will meet, or who has what (Franklin).

Anthony Duncan of Tuners Guild Trinidad and Tobago states:

In the steelbands no, since I have heard and understood how unique instruments contribute to sound color and identity. (Duncan)

The caption of Pan Elders, Emerson Joseph expressed:

I believe that there is a need for standardization of the different steelpan ranges as this would remove the need for players having to remember the many different note

layouts from band to band. All other instruments are basically standardized so it is about time that we have the steelpan standardized (Joseph).

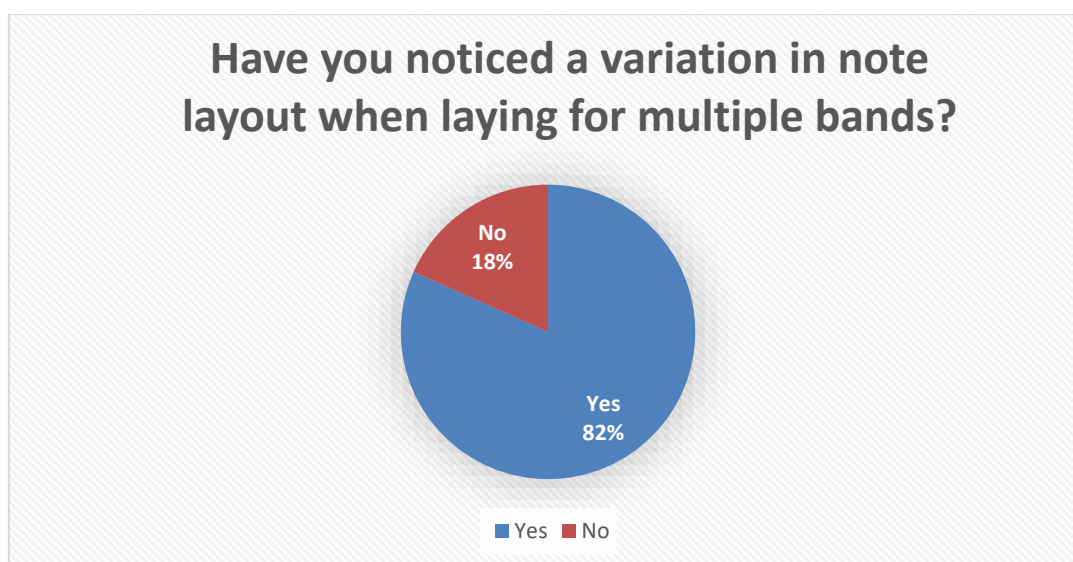
Co-Founder of FCB Supernovas Amrit Samaroo states:

There may be a good case for it, but a need... no. Standardisation has many benefits but at what cost? Would it not stand in the way of further development? The instrument is still quite young as compared to the conventional instruments, who's to say what we have cannot be improved upon (Samaroo)

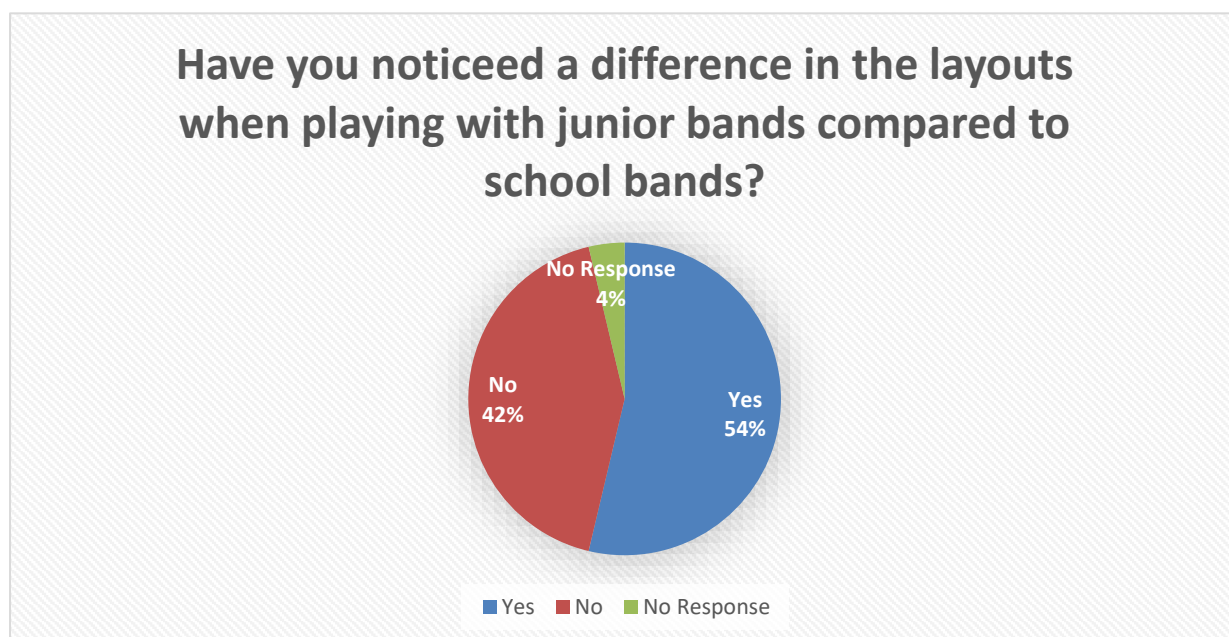
## CHAPTER THREE

### 3.1 Presentation and Discussion of Findings

The questionnaire was divided into three major sections with conditioned questions for school band/junior band players and stage side players. The questionnaire consisted of a mixture of closed and open ended questions. For open ended question responses with commonality were placed into one category with an umbrella label. Figures 38-39 show the result for players who noticed an absence of standardization in School/Junior bands.



*Figure 38. Pie Chart for Players of Multiple Bands Who Noticed Variations in Mid-Range Pans*



*Figure 39. Pie Chart for Players in Junior or School bands who noticed the absence of standardization.*

In both categories, more than 50% of respondents noticed the absence of standardization.

Those who did notice the absence of standardization saw this through the variation of note placement the physical arrangement of the pans, the layout of the pans, and the placement of the boreholes used to hang the pan. Figures 40-43 show these results.

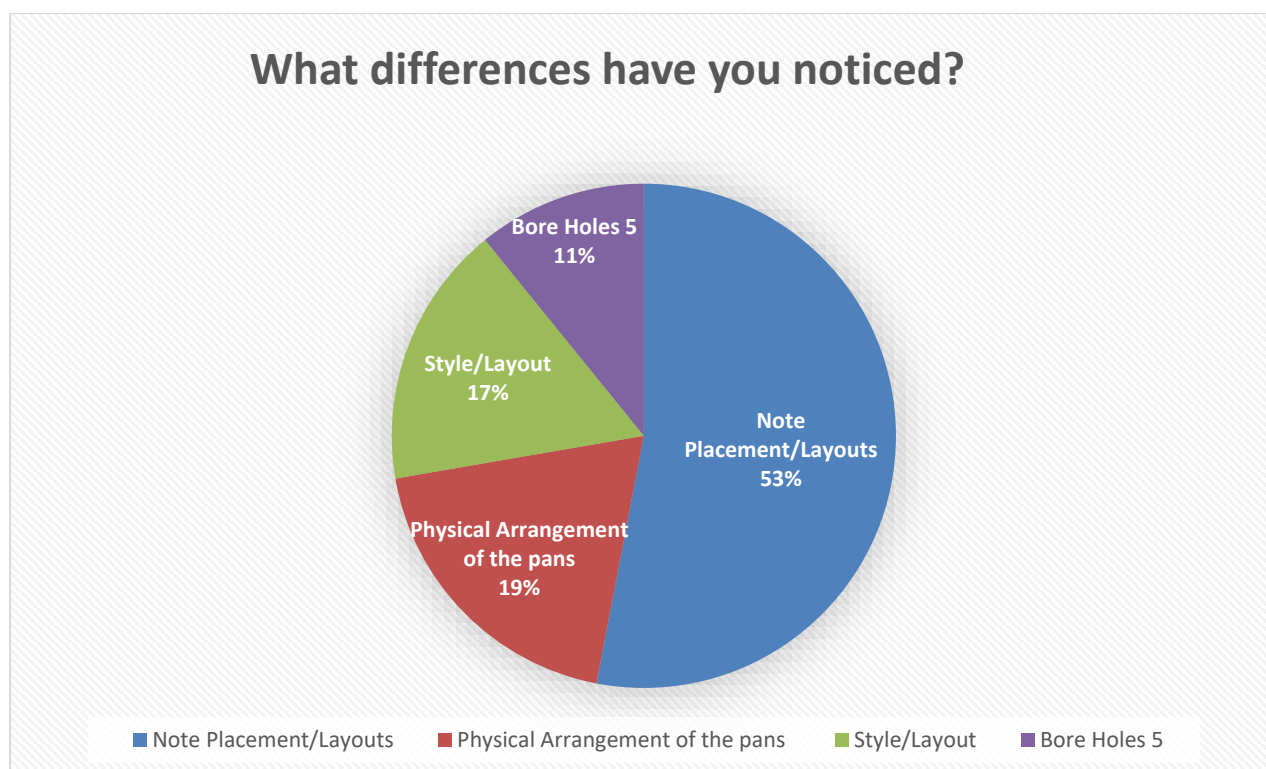


Figure 40. Pie Chart showing the general responses gave by respondents.

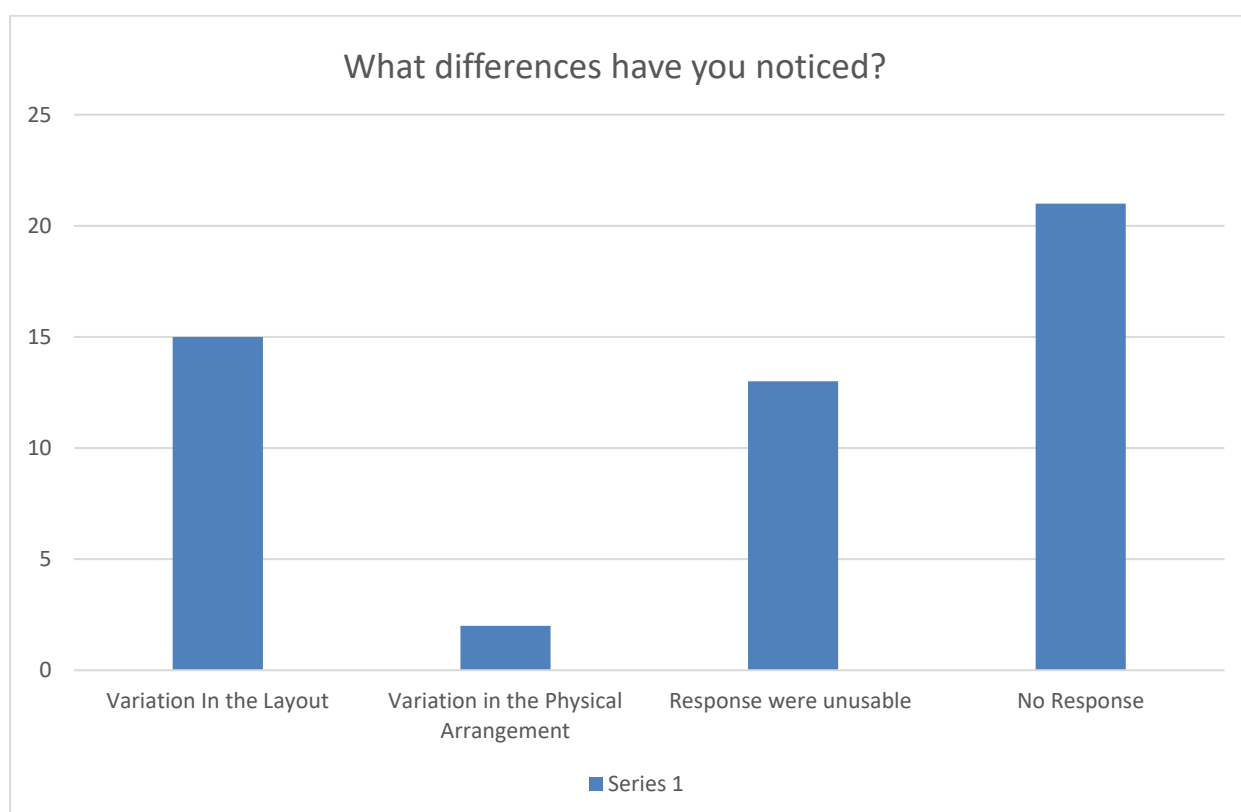


Figure 41 Bar Chart showing the responses of people who noticed a difference in junior bands and school bands.

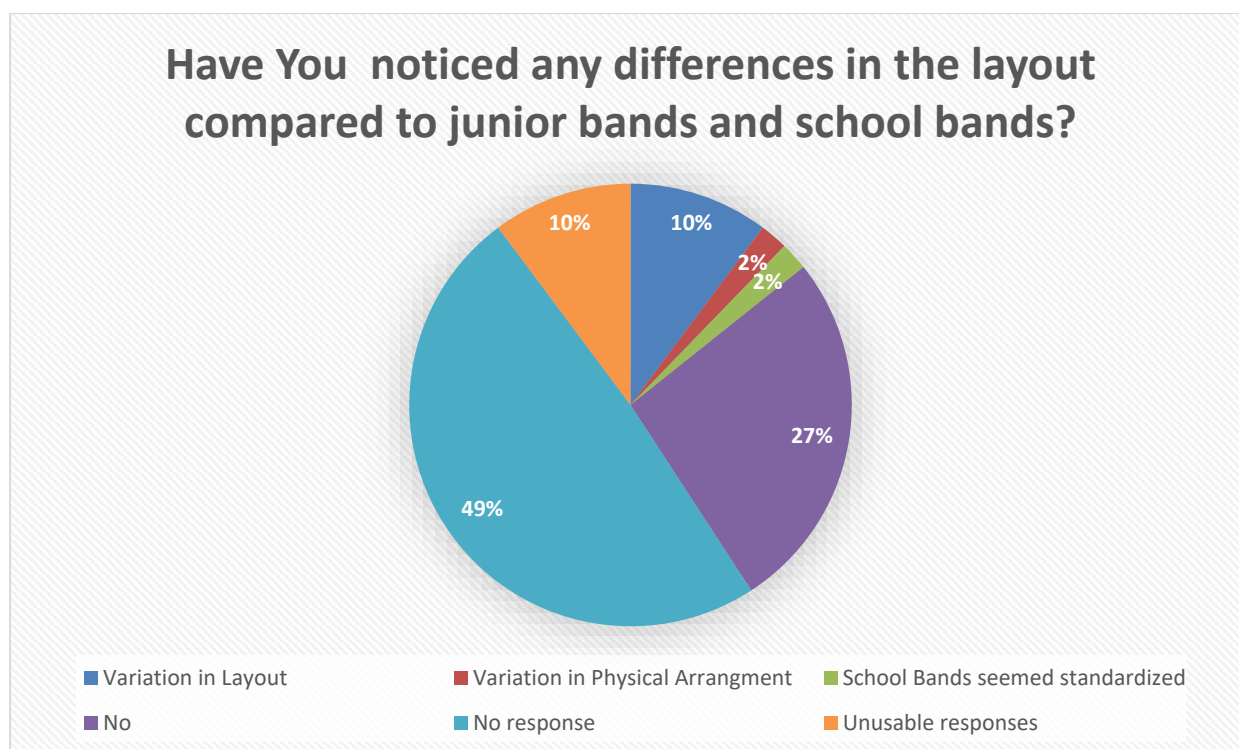


Figure 42 Pie Chart showing the common responses of persons who noticed variation from junior and school bands to community bands.

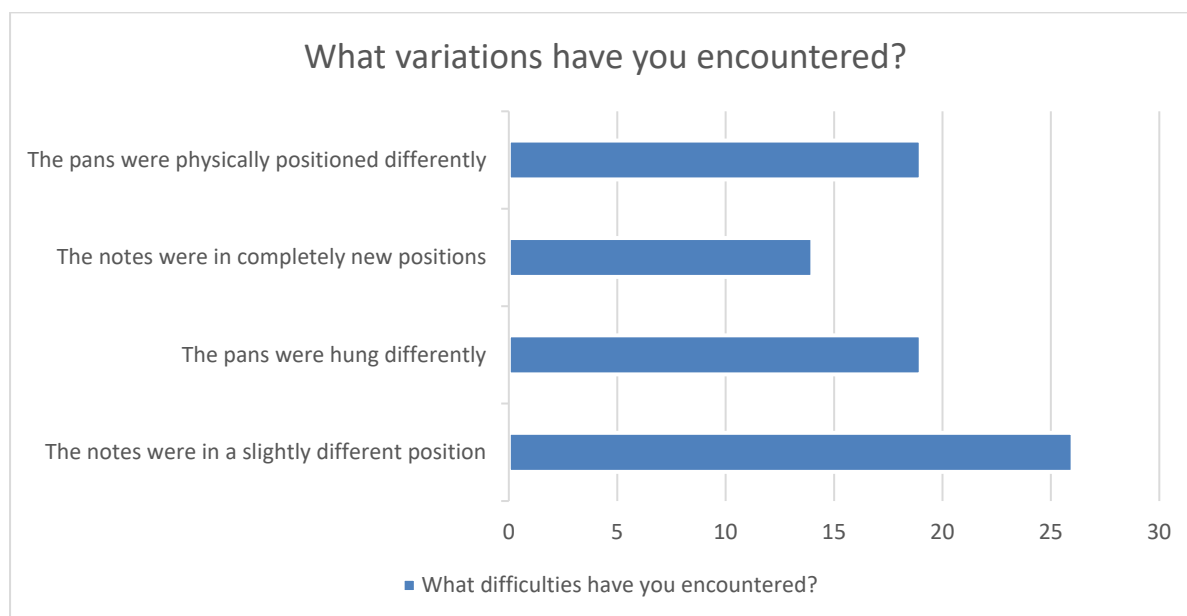
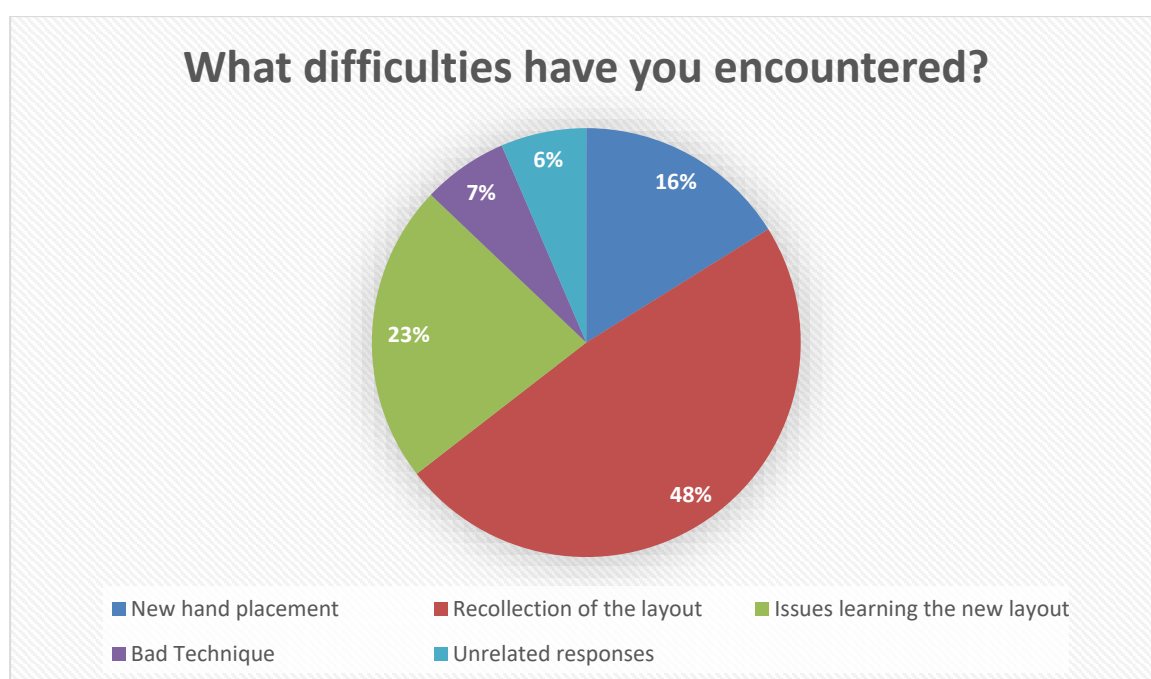


Figure 43. Responses of stage-side players who encountered variations in adjusting to new pans within the band.

Respondents were asked, "Does the variation of note layout affect you as a mid-range player?" and 52.1% of respondents said yes and expressed how they were affected. These

variations affected the players both mentally and physically. Mentally, players had to rework their muscle memory, many expressed having a hard time remembering the varying note placements as well as encountering other difficulties. Physically players had to spend more time learning music, re-working their hand positions. In addition, players experienced aches such as backaches, wrist pains, shoulder pains finger cramps, and one respondent expressed hitting their arms on the stands. Figures



*Figure 44. Pie Chart showing the common difficulties junior band and school band players faced while learning music on a pan with a new layout.*

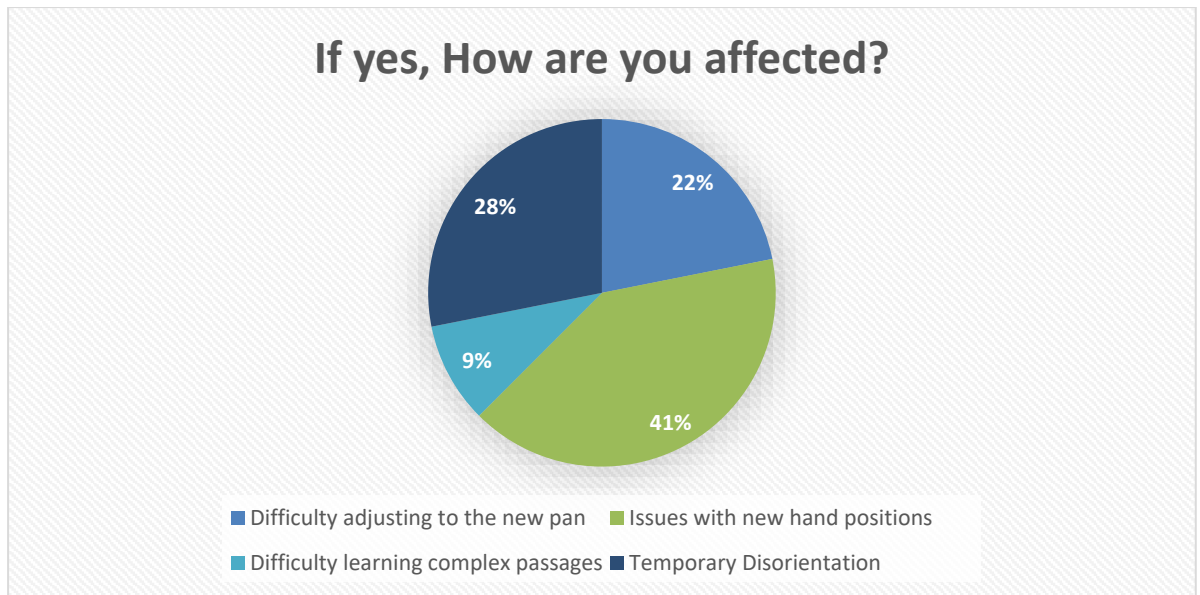


Figure 45. Pie Chart showing how players of community band were affected by the variation in layout.

Due to the absence of standardization, players also expressed difficulties in rote learning in the panyard as they could not look at their bandmates for music. Players also expressed that learning music became time-consuming as they would have to ask persons for notes as well as look for said notes on their pans.

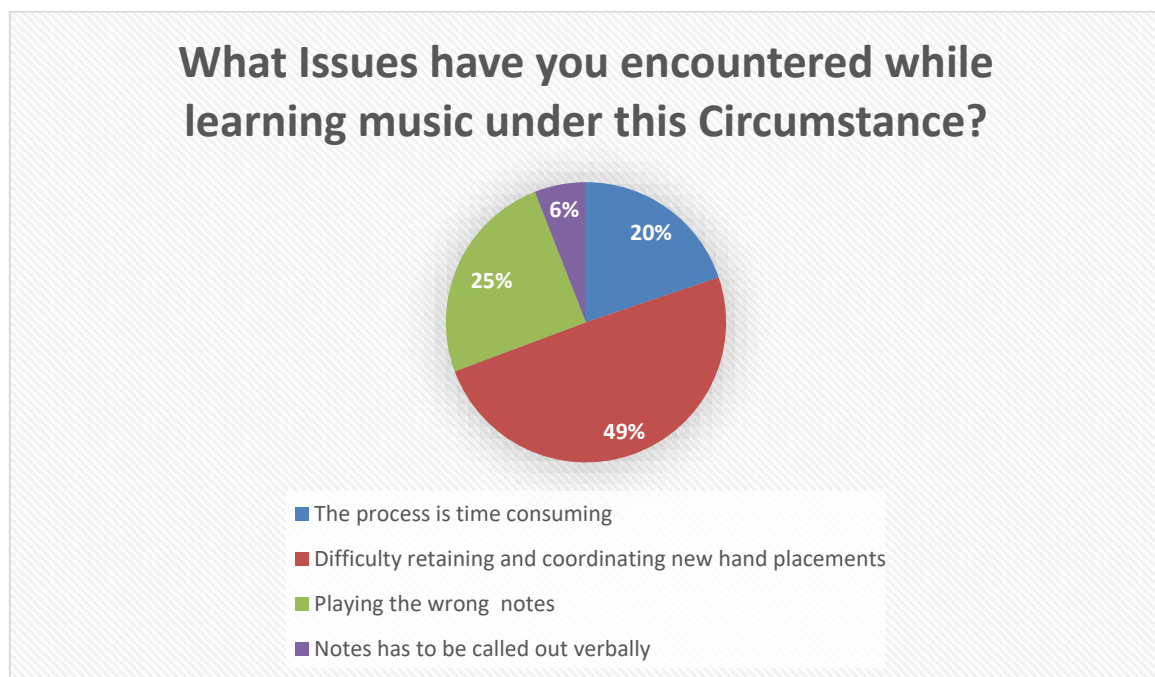
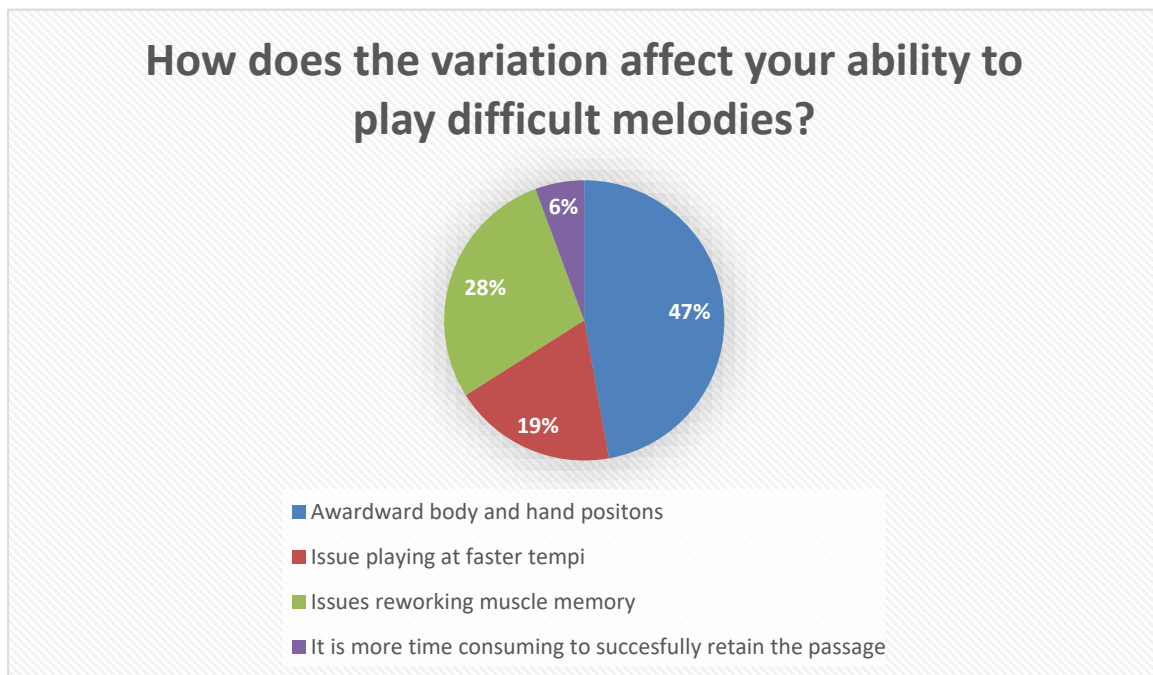


Figure 46. Pie Chart showing the common responses of players who had issues learning music from a bandmate with varying layouts

Moreover, players found it difficult to play complex melodies or runs due to the varying styles of pans.



## CONCLUSION

This study explored the absence of standardization in mid-range pans and the effects it had on players. Highlighted were the hindrances for standardization, understand where the steelpan fraternity is currently with standardization, understand the areas within the mid-range pans that lacked standardization, and highlight the current stance of standardization for mid-range pans.

The Covid-19 pandemic limited the scope of this research as bands were not practicing, therefore, visitations for observations on how players were affected or to take pictures of the various layout could not be done. Moreover, it limited the ability to gain a wider perspective on the absence of standardization and better understand how it affected players through. With an online survey, the opinions of players within the middle age and older demographic were scarce. In-person visitations to the pan yard would have allowed questionnaires to also be distributed in hard copy to those who could not access an online survey. Furthermore, the pandemic affected the ability to have in-person interviews with tuners who belonged to the older category of tuners who would have been high risk.

Interviews with tuners and band personnels identified the various contributors for the absence of standardization. Mid-range pans have come a long way with regards to standardization but there is still much to be done. However, this research also revealed strong points for not standardizing the steel pans and more specifically the mid-range pans such as the loss of identity and the cap that would be placed on innovating.

New questions arise as we consider standardization, Will it take away from band identity? Is it worth removing such an aspect from the Steelband Movement's heritage and those who would have innovated the varying style? Is it possible to standardize without

losing the history and culture embedded in the variety of styles? Does the lack of standardization create more well-rounded players?

As a result of this study further areas for future research have been identified which include the exploration of tuner and arranger relationship when commissioning new instruments, the exploration of the various styles and its used and the in depth analysis of all mid-range variation throughout Trinidad and Tobago. The information presented would be useful for a persons in the future who wish to standardize mid-range pans or make the playing experience better for players

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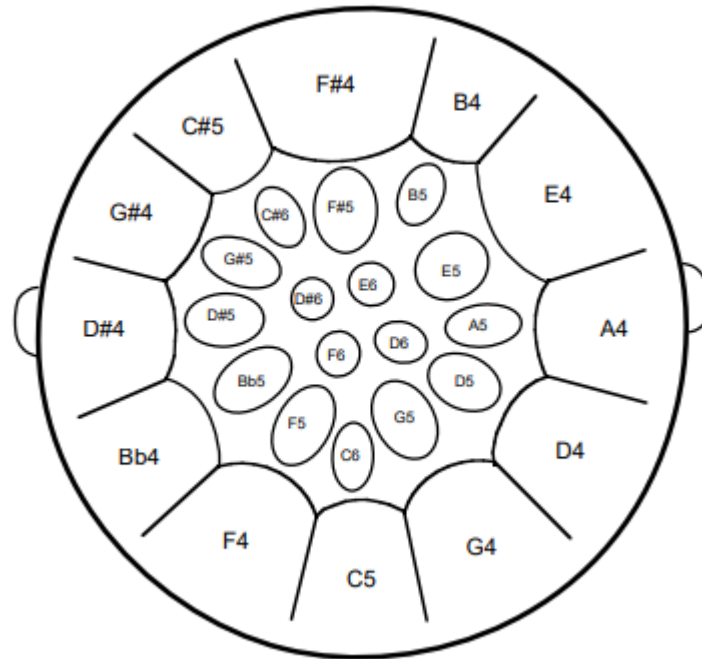
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## APPENDICES

### APPENDIX A: DIAGRAM OF FOURTHS AND FIFTHS STYLE TENOR

OVERVIEW OF THE TENOR PAN



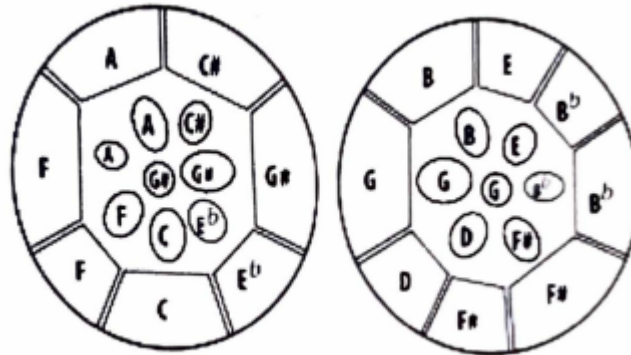
Source: Kronman, Ulf. "Steel Pan Tuning: A Handbook for Steel Pan Making and Tuning."

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<http://www.stockholmsteelband.se/pan/tuning/pdf/pantuning.pdf>

A fourths and fifths style Tenor pan made by Rudy Smith. This is the most predominant style used in the steelpan fraternity.

## APPENDIX B: DIAGRAM OF BERTIE MARSHAL DOUBLE TENOR



Source: Steelpan- Terminology, Trinidad, and Tobago Bureau of Standards, 2015, p 13.

This diagram displays the Bertie Marshall Style Double Tenor predominately used in the steelpan fraternity.

## **APPENDIX C: INTERVIEW TRANSCRIPTIONS**

### **Arron Franklin Interview Transcript**

The following is an interview conducted with Aaron Franklin, BPTT Renegades Section Leader for Quadraphonics and Four Cello sections on January 22<sup>nd</sup>, 2021.

**Nicholan Garcia: What is your name and the...Your portfolio in the band?**

**Aaron Franklin:** \*Sucks teeth\* My name is Aaron Franklin. Laughs and umm firstly am a stage-side player. I've been playing with the stage for like 16-18 years. Am also for panorama a section leader for the quadrophonics section. Stage side I run the Four cello section. I currently play the G-pan the G three cello pan. Ummm \*Background noise\*. Yeah, actually that's bout it. I believe.

**Nicholan Garcia: And how long have you been with the band?**

**Aaron Franklin:** Since 99.

**Nicholan Garcia: 99?**

**Aaron Franklin:** Yeah from the junior band.

**Nicholan Garcia: Okay. So within yuh band are their various layouts of the pans. Just general, all pans.**

**Aaron Franklin:** Am Well this band has been always known to be a third and fourth band when it comes to the pan range so majority of the pans are third and forths in set up. But ah as of recently we have more tenors forths and fifths and the double seconds well is the standard double seconds now. The double tenor not standard, the guitars standard. Three Cello the Four Cellos aren't standard. The quads same things. It's due the style of the band that was built from.. back in the day how the tuner Bertrum Kelman. How he how

he built the band with that specific sound they wanted so the band is predominantly third and forth

**Nicholan Garcia:** So the, the differentiation in the layout would be for the sound the band wanted?

**Aaron Franklin:** Yes.

**Nicholan Garcia:** Okay, so well we going to ah, Obviously the next question is what influenced the difference in the layouts. I know you said that is the sound that the band want..

**Aaron Franklin:** Yeah

**Nicholan Garcia:** Um, in your, specifically in your guitars and cellos what is the layout yall currently have?

**Aaron Franklin:** Yeah we have the thirds and fourth layout.

**Nicholan Garcia:** Thirds and Forth layout. Um, its possible if you'd want to?

**Aaron Franklin:** To draw it out?

**Nicholan Garcia:** Yeah,

**Aaron Franklin:** Yeah no problem

**Nicholan Garcia:** Yeah Probably your Quads, Four Cello three Cello and Guitar

**Aaron Franklin:** So yeah the layout is, as I was saying apart from the guitars that is standard

**Nicholan Garcia:** And what is the standard of the guitars? Thirds and forths as well

**Aaron Franklin:** Fourths and fifths. The Cello the Three Four and Quads are different. But with

the quads now I believe majority of the band the difference is how they set it up. Some bands wel there are two versions well some bands change the layout of the pans they may have the same pan with the same notes in them

but they would change the layout. Some band would have B here on your left some band would have B on you right so instead of going counter-clockwise some bands would clockwise, chromatic

**Nicholan Garcia: And for the Cellos and for the just Cellos Four and Three.**

**Aaron Franklin:** Yeah thirds and fourths.

**Nicholan Garcia: Okay, well you could draw out the layouts so I can have a idea of how they go.**

**Aaron Franklin:** Hold on sec.

**Nicholan Garcia: No problem.**

**Aaron Franklin:** Put meh in school here girl.

**Nicholan Garcia: \*\*chuckles\*\***

\*background noises\*

**Aaron Franklin:** Well you want me the describe the layout as well or something?

**Nicholan Garcia: Yeah**

**Nicholan Garcia: Sooo, the next question would be, do you think the layout affects the ability the band's ability to recruit players?**

**Aaron Franklin:** To recruit players?

**Nicholan Garcia: Yeah**

**Aaron Franklin:** Am no you would only know of it when you reach. You only know the layout of the pans when you reach behind them. Unless you around in the band fraternity you would know that renegades have a different style to the majority of the other large bands. But majority of the large bands are different as well when it comes to certain instruments especially, the cello.

**Nicholan Garcia: So you ever had somebody come to the band to play and they had issues**

**playing, probably they play with a different layout before?**

**Aaron Franklin:** Yeahhhh and I had to teach them from scratch like formation and layout and stuff.

**Nicholan Garcia:** And you ever had anybody leaving because they couldn't do it?

**Aaron Franklin:** Leaving not really for the formation but probably for the difficulty of the music. but not really due to the layout of the pan.

**Nicholan Garcia:** Do you think the layout of the pan could make the music difficult to play?

**Aaron Franklin:** Yess that that would happen because with the forths and fifths you would get your whole notes closer to each other. When you have certain runs and scales to play chromatically and stuff.  
But over time with practicing it would become easier. But with the first couple of days, it would be difficult.

**Nicholan Garcia:** Okay and well has the different layout in pans affect where you would go to play as a player?

**Aaron Franklin:** No no I have learned to be adaptable basically it it takes a development to process. Basically takes some like hours to like some days according to my willingness and the type of pan basically because 2 years ago I moved during the pan season from quadraphonics to the G-Pan to accommodate some foreign players. I never saw the G-Pan before. So First thing I did was take a mental note of the pan by drawing it out couple times and digesting the the note placement and the setup of the pand and setting up constantly over and over and with in three days I had the entire panorama

song from the quads to the g pan. Some people would take longer some people might take less. Is more about adapting to the pan and having some sort of structure to learning the new instrument because you just can't go about learning notes when you have to learn about the pan itself first.

**Nicholan Garcia: So in this case do think that there is a need for standardization?**

**Aaron Franklin:** Yess

**Nicholan Garcia: What is your views on standardization?**

**Aaron Franklin:** Standardization would make the thing so much easier. So you would basically, here the instruments are standardized unless they like trumpets and horns and stuff that you transpose to suit the instrument itself. Pan is a concert pitch instrument we have all the notes. I don't I think that is one of the advantages we have. It makes it difficult that you learn on instrument here and you go another place and the same instrument you basically have to learn over which puts you through another process so yeah. Basically standardization would eradicate a lot of problems within the fraternity. Cause you don't know what bands have what types of pans you will meet or who has what. Only until you reach that when you will get surprised.

**Nicholan Garcia: True and as I said before sometimes you go in the same band and play this pan today and somebody come tomorrow and "días my pan" and now come to practice you need to change pans and it's a different pan you going on, a different layout.**

**Nicholan Garcia: Umm, well given the culture of sharing music, we share music by rote, nobody reads scores.**

**Aaron Franklin:** Yeah We do.

**Nicholan Garcia:** Sorry I meant Most person, learn the traditional way. Traditional bands you go to and person would share music by rote. Do you have issues with sharing the music with people?

**Aaron Franklin:** No no ah, again just like the same you adapted to learning different instruments also adapted to showing people music no matter their skill level or the time they Would take take to get it. So what I would do normally once I have section mates around and my section around while I'm getting music I'll encourage the stronger one to get it with me and then we take we take a younger player from that from that each ....After the music is passed and I would make a general supervision after.

**Nicholan Garcia:** Okay.

**Aaron Franklin:** So what we try to do is encourage people who not strong enough to deal with somebody as well so with passing the music. Even if they don't get the full thing its always good to have a teaching aspect in it as well

**Nicholan Garcia:** Yeah

**Aaron Franklin:** Cause while teaching you also learn as well. So dais how I do it and then as I say supervising. I will basically know what I doing so by the time I pass around is just cleaning up everybody else and then during section practice if is any formation you wanna change up clean up to make it easier for them because of my knowledge of the pans that's what I would do. But I would not change their style with them learning but when they have it I try to ease the... how to say that boy, the difficulty level.

**Nicholan Garcia:** So you try to give them proper technique because you somebody they will have, they'll try to hit two notes her but they have the time bring across the hand.

**Aaron Franklin:** Yes Yes, Basically yes. Your left hand or your right to yeah yeah make it a bit easier and not time-consuming.

**Nicholan Garcia:** Okay, you said you play G-Pan? Which one of the pans?

**Aaron Franklin:** The G three cello

**Nicholan Garcia:** The three cello?

**Aaron Franklin:** Yeah

**Nicholan Garcia:** Okay, you have had the instance where you have the music, you get the music on the G-pan, you have to give...

**Aaron Franklin:** Yeah I stay right there.

**Nicholan Garcia:** Okay how difficult it is. Because some people would look at what you playing and try to mimic what you doing to try to learn music?

**Aaron Franklin:** Well .....

**Nicholan Garcia:** Or is that you have you assistance, you other stronger players taking music on a normal cello?

**Aaron Franklin:** So so, alright so. What happens is. So, like we have just the two parts you say. I have them in instances because I don't have strong players in Four Cello players for stage-side so ill be on my G-Pan and Id be dealing with the notes and they'd be on their pans. Soo. What I would be doing I would be taking the four cello music but due to the range of my G-Pan I would always look for the suitable chords for me but I would give them their music first.

**Nicholan Garcia:** What do you mean by suitable chords? Let's say they give out a melody, a run, or something.

**Aaron Franklin:** The run would basically be the same for me with the range but the chords

would be different for more body.

End.

**WHATSAPP INTERVIEW ON MARCH 17<sup>TH</sup> 2021 WITH AARON FRANKLIN.**

**Nicholan Garcia: Can I ask you a few more question here on Whatsapp?**

Aaron Franklin: Ok

**Nicholan Garcia: What are the names Renegades use to refer to their Mid-Range pans?**

Aaron Franklin: Names as in official names or like nicknames?

**Nicholan Garcia: Both.**

**Nicholan Garcia: I know some band called their Four Cellos, Four Pan, or Quads**

**Nicholan Garcia: Others refer to their three Cellos as just Cellos or Triple Guitar or 3 pan**

Aaron Franklin: We've Double Guitars three & Four Cellos and Quads

**Nicholan Garcia: Is the physical setup of the pan the same for every player? Has there ever been an instance where a requested to have the pan set up differently?**

Aaron Franklin: There's a different height issues at times and only on one occasion I had to change our set up of a quads for a player from up the islands

**Nicholan Garcia: Are all the pans in each of the mid-range sections bored in the same place for them to be hung on the racks?**

Aaron Franklin: Yes most times to ensure that there's a symmetry within the section easier for a section leader to see who's playing off

**Nicholan Garcia: Okay thank you very much for the information.**

End.

**Petal Jack Interview Transcript.**

The following is a WhatsApp interview conducted with Petal Jack, Massy Trinidad All Stars Steel Orchestra middle pans section leader conducted on March 14<sup>th</sup> 2021.

**Nicholan Garcia: Pleasant Good Afternoon Ms.Petal**

**My name is Nicholan Garcia, I got your contact through Jody Clement a past member of the Quads Section in All-Stars. I am currently a UWI student in my final year doing my Caribbean Studies Project on The absence of standardization in Mid-Range pans and the effects it has on players. Ms. Andrews directed me to you on this topic as you are the section leader for Mid Pans and may have information on the band's mid-range pans and its layouts.**

**Would you be willing to have an interview done, at a time convenient to you, using your preferred medium: Whatapp Messenger, Zoom or Call in which I can gather some more information on the mid-range pans the band currently has and its layouts.**

Petal Jack: Good day,  
Sure! No problem

Petal Jack: How soon do you need it to be done?

Petal Jack: No problem

Petal Jack: You can send your questions here

**Nicholan Garcia: Sure. Just a second.**

**Nicholan Garcia: What is your name and portfolio in the band?**

Petal Jack: Petal Jack. I am one of the section leaders for the middle section (triple guitar and four cello) for Trinidad All Stars Steel Orchestra

**Nicholan Garcia: How long have you been with the band?**

Petal Jack: I have been with the band for 20 years

**Nicholan Garcia:**     **Does the layout of notes on pans in your band vary from that of other bands?**

Petal Jack:             Yes, the layout is different. Some bands even have different mid-range pans such as double guitar.

**Nicholan Garcia:**     **To your knowledge, What influenced the differentiation in layout?**

Petal Jack:             Two factors come to mind with this. Our guitar pan was created by Neville Jules, one of our founding members, so I believe other innovators of the instrument created variations to their liking as the pan movement progressed. The other thing is range. I found that our range is a bit lower than other bands.

**Nicholan Garcia:**     **Are there differences in the note layout in your mid-section pans, specifically guitars, cellos (three and four)? Even not with the note layout but the physical arrangement of the pans?**

Petal Jack:             The four cello range is lower than the triple guitar range. The note layout is different as well. With the guitar pan, the chromatic range starts from C and ascends on the pans in order from left to centre to right. The four cello chromatic starts from B flat, but ascends differently from the 2nd to the fourth back to 1st then 3rd.

**Nicholan Garcia:**     **Do you think the layout of pans affect the bands ability to recruit players?**

Petal Jack:             No, it doesn't. Players tend to adapt to our style of instrument.

**Nicholan Garcia:**     **Does the layout of a pan affect whether you will go somewhere to play?**

Petal Jack:             No it doesn't.

**Nicholan Garcia:**     **Do you think there is a need for standardization?**

Petal Jack: Yes. Standardization will make it easier for players to play with a range of bands such as foreigners who may play with different bands buy come to Trinidad to participate in panorama or even locals who may play with bands in different categories.

**Nicholan Garcia: Given the culture of sharing music, do you think the lack of standardization in the band influences players?**

Petal Jack: No. I don't think so

**Nicholan Garcia: Okay thanks so much. I have a few more questions and some based on the what you would have said.**

**Nicholan Garcia: In additions, would it be possible to get diagrams of the layouts for you mid sections pans showin the layout of the notes?**

Petal Jack: Sure

**Nicholan Garcia: Oh okay, thanks you much**

**Nicholan Garcia: \*A voice message was sent asking about the placement of the boreholes for hanging the pans and whether players were able to arrange their instruments different to others\***

Petal Jack: Well, we bore our pans ourselves so it's usually placed the same. If it's placed twisted, it would be slight so not different enough to throw off a player.

Petal Jack: No one places the instrument physically different. Everyone places their pans almost identically so anyone can play any instrument

**Nicholan Garcia: One more question, Do you all have a high influx of person coming from the school system and has their every been person having a hard time adapting to the mid-range pans because they may have had a different layout in their school bands?**

**Nicholan Garcia:     \*there ever been**

Petal Jack:             Yes, we have a high influx of players coming from the school system due to our junior band. I have never experienced a young player having a hard time adapting to a change in style.

**Nicholan Garcia:     Oh okay thank you very much for the information.**

**Nicholan Garcia:     You all only use three and fours right?**

Petal Jack:             Yes

**Nicholan Garcia:     And you all refer to the three cello as Triple Guitars and the Four cello as Quads?**

Petal Jack:             Yes

End.

### **Roget Williams Interview Transcript**

The following is an WhatsApp interview conducted with Roget Williams, Fascinators past vice captain on March 15<sup>th</sup> 2021.

**Nicholan Garcia: Good Afternoon Roget.**

**Nicholan Garcia: Nicholan here.**

**Roget Williams :** Hello

**Nicholan Garcia: You gave some great information in the group chat**

**Nicholan Garcia: I have some other question I would like to ask as well if you don't mind.**

**Roget Williams :** Ok

**Nicholan Garcia: Is Whatsapp okay for doing the interview?**

**Roget Williams :** Yes

**Nicholan Garcia: What is your name and portfolio in the band?**

**Roget Williams :** Roget Williams. In some bands Player in various sections. For Fascinators I used to be the Vice Captain

**\*No response was given to the following five questions\***

**Nicholan Garcia: How long have you been with the band?**

**Nicholan Garcia: Does the layout of a pan affect whether you will go somewhere to play?**

**Nicholan Garcia: Do you think the layout of pans affects the band's ability to recruit players?**

**Nicholan Garcia: To your knowledge, what influenced the differentiation in layout?**

**Nicholan Garcia: Do you think there is a need for standardization?**

**Nicholan Garcia:** **Does the layout of notes on pans in your band vary from that other bands?**

Roget Williams : The layout in notes really vary for the following pans, cello (3&4), bass pans. This honestly depends on the band preference.

**Nicholan Garcia:** **Are there differences in the note layout in your mid-section pans, specifically guitars, cellos (three and four)? Even not with the note layout but the physical arrangement of the pans?**

Roget Williams: In one specific band you would find note section layout not to vary. However from band to band

Roget Williams: Pan styles are normal done in 3rds

Roget Williams: But the placement of the pans are based on ease of playing

Roget Williams: And all due to player preference.

Roget Williams The style of Pan to me doesn't affect the ability to recruit players however the experience of the player and skill affects there ability to adjust to another Pan style: In one specific band you would find note section layout not to vary. However from band to band

**Nicholan Garcia:** **Also you mentioned, that variation in layout has is influenced by the size of the band and voicing. Could you expound on this?**

Roget Williams: Well this is when I thought I were speaking about placement of the mid section pans in a panorama band. But I realized u are talking about note placement

Roget Williams: In a pan from band to band

**Nicholan Garcia:** **Given the culture of sharing music, do you think the lack of standardization in the band influences players?**

Roget Williams: Again I think this boils down to the experience of the players. For example I can adjust to any pan because at a you g age I was trained in all different Pan styles.

Roget Williams: Some places only play one style there entire lives so meeting another Pan style May also be difficult to them.

Roget Williams: The question really is which style is the best and that all comes down to the player

Roget Williams: I hope that helped

**Nicholan Garcia: Thank you. Im currently in class. So I'll read after and respond as I may have some more questions**

Roget Williams : Ok

**Nicholan Garcia: Thank you, the information all helped**

End.

**Riekel Kistow Interview Transcript**

The following is an WhatsApp interview conducted with Riekel Kistow, Melodians Steel Orchestra Executive Committee Member on March 16<sup>th</sup> 2021

**Nicholan Garcia: My name is Nicholan Garcia. I got your number from Emmanuel. He informed me that you were part of Band Management for Melodians.**

**I am a Final Year Student of the University of the West Indies currently doing my Final Year Research Project on The Absence of Standardization in Mid-Range Pan and the effects it has on player.**

**As part of my research project, I'm trying to compare the layouts of notes and ranges of mid-range pans that currently exist in the various bands throughout Trinidad and Tobago. The aim of this study is to analyze the various layouts, understand why they exist and understand various band stance on the topic of standardization.**

**Nicholan Garcia: Would you be willing to have an interview done, at a time convenient to you, using your preferred medium: Whatapp Messenger or Zoom in which I can gather some more information on the mid-range pans your band currently has and its layouts.**

**Nicholan Garcia: If using Whatsapp I can send you the questions and you can respond when convenient to you.**

**Riekael Kistow: Hi Nicholan. Any method is fine with me. Which one would be best for your research project?**

**Nicholan Garcia: Whatsapp would be better.**

**Nicholan Garcia: Firstly do I have permission to you the information recieved her in my Research Project?**

Riekael Kistow: Yes you do

**Nicholan Garcia: What is your name and portfolio in the band?**

Riekael Kistow: My name is Riekael Kistow. I am a stage side member and a member of the executive committee of Melodians Steel Orchestra.

**Nicholan Garcia: How long have you been with the band?**

Riekael Kistow: I have been with the band since 2011, which makes it 10 years this year.

Riekael Kistow: I play a 4 cello.

**Nicholan Garcia: To your knowledge, what influenced the differentiation in layout?**

Riekael Kistow: I originally started on the tenor bass. However, there came a point when we had no cello players. So the captain asked me to play the 4 cello. Since there was no one to 'pass down' the way to set up the cellos...the captain did the best he could to arrange them.

**Nicholan Garcia: Does the layout of notes on pans in your band vary from that other bands?**

Riekael Kistow: Yes it does. A player from another band told me that one of my pans was arranged wrong. (It was upside down)

**Nicholan Garcia: Does the layout of a pan affect whether you will go somewhere to play?**

Riekael Kistow: Yes it would, especially if their pans are extremely different from ours. It's like having to reprogram your brain.

**Nicholan Garcia: Are there differences in the note layout in your mid-section pans, specifically guitars, cellos (three and four)? Even not with the note layout but the physical arrangement of the pans?**

**Nicholan Garcia: Do you think the layout of pans affect the bands' ability to recruit players?**

Riekael Kistow: I think that this is a possibility. More so for 'seasoned' players who have already learned the cellos to be a particular way. New players will be better able to adapt.

**Nicholan Garcia: Do you think there is a need for standardization?**

Riekael Kistow: Most definitely, this will avoid any problems. Persons can play any pan from any band and get the same sound.

**Nicholan Garcia: Do you all have a high influx of person coming from the school system and has their every been person having a hard time adapting to the mid-range pans because they may have had a different layout in their school bands?**

Riekael Kistow: Our band is relatively small, and we don't have a high influx of people coming from the school system. If persons do come, they tend to join the Frontline, so this hasn't really affected us

**Nicholan Garcia: Given the culture of sharing music, do you think the lack of standardization in the band influences or affects the players ability to get Music?**

**Nicholan Garcia: Would it be possible to get diagrams of the layouts for your mid-range section pans show in the layout of the pans and placement of the notes? If you band uses different name for the pans labelled**

**please note. (For instance, some bands refer to their three cello as Triple guitars, Four Cellos as Quads or Four Pan.)**

**Nicholan Garcia:** Here are some blank diagrams that can be given to note fill in the notes if they align with the note placement and range of your band.

**Nicholan Garcia:** \*to use

Riekael Kistow: We call them: 3 cellos, 4 cellos/four pan. 3 cello/3 pan

Riekael Kistow: I'm not familiar with the guitar pan or it's layout.

Riekael Kistow: Let me know if I missed out anything.

**Nicholan Garcia:** Good Afternoon

**Nicholan Garcia:** Apologies for the late reply

**Nicholan Garcia:** Could you tell me more about this and which pan they thought was upside down?

**Nicholan Garcia:** Oh okay, what about younger players who come to for Panorama does it affect them?

**Nicholan Garcia:** Is there anyone you would be able to get the guitar layout from? If not it's okay.

Riekael Kistow: They said the F was supposed to be to the top with the big A on the inside

**Nicholan Garcia:** Oh okay noted

**Nicholan Garcia:** Thank you so much again

End.

### **Brandon Babb Interview Transcript**

The following is an WhatsApp interview conducted with Brandon Babb, Captain of Caribbean Airlines Skiffle Steel Orchestra on March 15<sup>th</sup> 2021

**Nicholan Garcia:**     **Good Afternoon Mr. Brandon Babb.**

**My name is Nicholan Garcia. I got your number from Sparks. He informed me that you were the Captin for the band. I am a Final Year Student of the University of the West Indies currently doing my Final Year Research Project on The Absence of Standardization in Mid-Range Pans and the effects it has on Players. Education As part of my research project, I'm trying to compare the layouts of notes and ranges of mid-range pans that currently exist in the various band throughout Trinidad and Tobago. Would you be willing to do an interview on the layouts of mid-range pans you have in your band or would you be able to put me onto someone in which I would be able to get such this information?**

**Brandon Babb:**        **Good day sir**

**Brandon Babb:**        **I would be willing to do such an interview**

**Nicholan Garcia:**     **Good Day Again**

**Nicholan Garcia:**     **I'm a Maam lol but thats okay**

**Nicholan Garcia:**     **How would you prefer to do the interview?**

**Nicholan Garcia:**     **Whatsapp or Zoom?**

Brandon Babb: My apologies

Brandon Babb: Whichever is easier for you

**Nicholan Garcia: Whatsapp.**

**Nicholan Garcia: What is your name and portfolio in the band?**

Brandon Babb: Brandon Babb Co Captain of Caribbean Airlines Skiffle Steel Orchestra

**Nicholan Garcia: How long have you been with the band?**

Brandon Babb: I've been in the band for the last 22yrs

**Nicholan Garcia: Does the layout of notes on pans in your band vary from that other bands?**

Brandon Babb: Some of the noted on some of the instruments vary from other bands

**Nicholan Garcia: To your knowledge, What influenced the differentiation in layout?**

Brandon Babb: To my knowledge what influenced the difference in layout are:

- 1) Different pan tuners had different styles.
- 2) Bands wanted to be unique and made their instruments differently to stand out amongst other bands

**Nicholan Garcia: Are there differences in the note layout in your mid-section pans, specifically guitars, cellos (three and four)? Even not with the note layout but the physical arrangement of the pans?**

Brandon Babb: Yes there are differences in the lay out in our mid - section pans. If I'm not mistaken our guitars are laid out different from other bands. As for

our cellos the notes maybe laid out the same but the setup of the instrument is different

**Nicholan Garcia:**     **Do you think the layout of pans affect the bands ability to recruit players?**

Brandon Babb:        Yes and no. Based on a player's capability he/ she may be able to play the same instrument in two bands but the pans are set up differently. Whereas another player may not be able to do said. It's all based on the player

**Nicholan Garcia:**     **Does the layout of a pan affect whether you will go somewhere to play?**

Brandon Babb:        For me, I'd say no it won't affect me

**Nicholan Garcia:**     **Do you think there is a need for standardization?**

Brandon Babb:        I think it's a great idea to standardize the instruments across the board

**Nicholan Garcia:**     **Given the culture of sharing music, do you think the lack of standardization in the band influences players?**

Brandon Babb:        No, I don't think so really because most of the time it's the same group of players coming back year after year to play and over time they get accustomed to the style of instrument

Brandon Babb:        I hope these answers are adequate?

**Nicholan Garcia:**     **Yes they are. Based on the answer I just have a few more questions**

**Nicholan Garcia:**     **Do I have permission to use all of the information gathered here?**

Brandon Babb:        Sorry for the late response

Brandon Babb: Yes you do

**Nicholan Garcia: Who is the cuurent supplier and tuner of Skiffle? Also would you be able to name past Tuners?**

Brandon Babb: Currently, Bertrand Kelman tunes our pans. Prior to that we had the `likes of Herman Guppy, Andy Neils and Sherwin Pierre just to name a few

**Nicholan Garcia: Can you tell me a bit more why you think it(standardization) is a great idea?**

Brandon Babb: It could make life for steel bands a whole lot easier. For instance, let's say we standardize the instrument and we have a big concert with a lot of bands and space is limited we can use one set of instruments for all the bands

**Nicholan Garcia: Would it be possible to get the layouts of your bands Mid-Range section?**

**Nicholan Garcia: I can supply you with a blank diagram that you can fill in.**

Brandon Babb: Sure no problem ill be in the panyard tmrw so I can do that then

Brandon Babb: Send the diagram

Brandon Babb: We have guitars, 3cellos and G3cellos

Brandon Babb: We don't have any 4cellos

**Nicholan Garcia: Thanks so much for the response**

**Nicholan Garcia: Okay np**

Brandon Babb: Because of the wide range of the G cello we no longer need it

**Nicholan Garcia: I think I'd be able to get the layout of the G cellos cause they are standardized**

Brandon Babb: You only need the guitar and 3 cellos?

**Nicholan Garcia: Yeah If that's what you use**

**Nicholan Garcia: And was it that you all phased out the Four Cellos you had?**

Brandon Babb: More or less

**Nicholan Garcia: If you can do the G cellos it would be appreciated too**

Brandon Babb: Not a problem

**Nicholan Garcia: Could you tell me how you got the G Cellos?**

Brandon Babb: The manager of our band was very instrumental in the creation of the G pans

**Nicholan Garcia: Oh okay, who is the manager of your band?**

Brandon Babb: His worship the Mayor, Alderman Junia Regrello

**Nicholan Garcia: Oh okay thanks**

**Nicholan Garcia: Nice to note**

Brandon Babb: No problem

**Nicholan Garcia: Thank you so much for all the help thus far**

**Nicholan Garcia: In addition, can I ask you a couple more questions?**

Brandon Babb: Sure no problem

**Nicholan Garcia: What are the names Skiffle uses to refer to their Mid-Range pans?**

Brandon Babb: Guitar, cello/3cello and G cello/G's

**Nicholan Garcia: It the physical set up of the pan the same for every player? Has there ever been an instance where a requested to have the pan set up differently?**

Brandon Babb: Most of the time. Yes there have been instances whereby players made requests the change the set up

**Nicholan Garcia: all the pans in each of the mid-range sections bored in the same place for them to be hung on the racks?**

Brandon Babb: No not all the pans are bored in the same place

**Nicholan Garcia: As a result, there is a twist in the notes placement?**

Brandon Babbs: Yes once you bore the holes in different places the pan automatically.

**Nicholan Garcia: Oh okay**

**Nicholan Garcia: Thank you**

End.

### **Jimi Phillip Interview Transcript**

The following is a WhatsApp interview conducted with Jimi Phillip, tuner and steelpan innovator on March 17<sup>th</sup> 2015.

**Nicholan Garcia:**      **Good Night Mr. Jimi Phillip. This is Nicholan Garcia who called you this afternoon about the interview question. Here they are. If you have any question on any of them you can let me know.**

**Nicholan Garcia:**      **How long have you been a tuner and what bands have you tuned for?**

**Jimi Phillip:**              I have been a Tuner for over fifty years. I have tuned for Carib Tokyo, Claytones, Old Tech, Flamingoes, St.margarites, boys, Pan Revival, St.Xaviers and bands in Barbados, Canada and Brazil.

**Nicholan Garcia:**      **What do you think influenced the variation in pan and note layouts?**

**Jimi Phillip:**              I think the variations in pan came because of range. And the note placement for playing positions and also for not having semitones next to each other because they would clash and make tuning difficult.

**Nicholan Garcia:**      **Why do you believe there were so many variants in the layout of mid-range pans?**

**Jimi Phillip:**              I think the different layouts of mid range pans is because of tuners coming up with their style to get something workable

**Nicholan Garcia:**      **Currently, do you think there is a lack of standardization in mid-range pans?**

Jimi Phillip: The is a lack or standardisation in the mid pans and also bass too.

**Nicholan Garcia: As a tuner, can you describe the most logical layout for a cello pan based on your expertise and why?**

**Nicholan Garcia: To date, is there a need for the variation in pan and layouts in the mid-range section?**

**Nicholan Garcia: Does the note layout of the pan make a difference with the sound of a pan or its quality of sound?**

Jimi Phillip: The note layout does not make a difference in the sound or the quality.  
I don't think so.

**Nicholan Garcia: Do you think there is a need for standardization?**

Jimi Phillip: Standardizing is needed, it's long overdue.

**Nicholan Garcia: What are your thoughts on standardizing? Do you think standardization would close the door for creativity in steelpan making?**

**Nicholan Garcia: Have you had to produce mid-range pans for multiple bands which had variations in the layout?**

Jimi Phillip: I produced midrange pans for multiple bands with different layouts

Jimi Phillip: I hope that I answered your questions and it will be helpful for you.

**Nicholan Garcia: Thank you so much**

End.

### **Salisha James Interview Transcript**

The following is a WhatsApp interview conducted with Salisha James, Captain of Uptown Fascinators on March 18<sup>th</sup> 2021

**Nicholan Garcia:**     **Good Afternoon Ms. Salisha James.**

**My name is Nicholan Garcia. I got your number from Keishaun Julien. I am a Final Year Student of the University of the West Indies currently doing my Final Year Research Project on The Absence of Standardization in Mid-Range Pan and the effects it has on player.**

**As part of my research project, I'm trying to compare the layouts of notes and ranges of mid-range pans that currently exist in the various band throughout Trinidad and Tobago.**

**Would you be willing to have an interview done, at a time convenient to you, using your preferred medium: Whatapp Messenger, Zoom or Call in which I can gather some more information on the mid-range pans your band currently has and its layouts. Or be able to put me in contact with some who would be able to and can give me permission to use the information gathered?**

**Salisha James:**     **I like the project I'm a mid range player.....3cello player**

**Salisha James:**     **U can whatsapp me questions**

**Nicholan Garcia:**     **Firstly do I have permission to you the information recieved her in my Research Project?**

Salisha James: Yes

**Nicholan Garcia: What is your name and portfolio in the band?**

Salisha James: Salisha James Manager....

**Nicholan Garcia: How long have you been with the band?**

Salisha James: Band is young 10years old...been with the band for 9 years

**Nicholan Garcia: To your knowledge, what influenced the differentiation in layout?**

Salisha James: \*no response\*

**Nicholan Garcia: Are there differences in the note layout in your mid-section pans, specifically guitars, cellos (three and four)? Even not with the note layout but the physical arrangement of the pans?**

Salisha James: We have 3 diff styles of guitars, 3 diff style 3 cello, 3 diff style 4 cello

**Nicholan Garcia: Does the layout of notes on pans in your band vary from that other bands?**

Salisha James: Yes it does....everytime I play with another band...I have to learn there pan...but within the past couple years I have bought my own 3 cello, so carry my pan to play with other bands

**Nicholan Garcia: Does the layout of a pan affect whether you will go somewhere to play?**

Salisha James: No just learn there style

**Nicholan Garcia: Do you think the layout of pans affect the bands' ability to recruit players?**

Salisha James: No not necessarily, true middle pan players are accustomed to the diff arrangement so we adapt

**Nicholan Garcia: Given the culture of sharing music, do you think the lack of standardization in the band influences or affects the players ability to get Music?**

Salisha James: Yes I do believe so it harder for middle players to learn the music at 1st because we have to learn the new style in a band so it take time to adjust unlike the tenor players

**Nicholan Garcia: Do you think there is a need for standardization?**

Salisha James: Yes there is a need for standardization, my band have begun the process where we have selected the styles we believe is best for the band, so we make new pans in those styles, and we're gradually getting rid of the other styles. We are a new band small category so this will take some time for us..pans expensive as u know

**Nicholan Garcia: Do you all have a high influx of person coming from the school system and has their every been person having a hard time adapting to the mid-range pans because they may have had a different layout in their school bands?**

Salisha James: No we don't have an influx of persons from the school system...so don't have that problem but I imagine it will be an issue for them

**Nicholan Garcia: Are all the pans in each of the mid-range sections bored in the same place for them to be hung on the racks?**

Salisha James: All the different styles are bored in the same place...but we have bored over some of the 3 cello and 4 cello to match the style we like for similar hand placement

**Nicholan Garcia: It the physical set up of the pan the same for every player? Has there ever been an instance where a requested to have the pan set up differently?**

Salisha James: Yes but we do not encourage it...if your playing with my band you have play with our set up or don't play at all

**Nicholan Garcia: Would it be possible to get diagrams of the layouts for your mid-range section pans show in the layout of the pans and placement of the notes? If you band uses different name for the pans labelled please note. (For instance, some bands refer to their three cello as Triple guitars, Four Cellos as Quads or Four Pan.)**

**Nicholan Garcia: Here are some blank diagrams that can be given to note fill in the notes if they align with the note placement and range of your band.**

Salisha James: Idk if I can get this to you...cause not in the pan yard much these days...but I will try to pass on the info..might take some days to get the info to you

**Nicholan Garcia: Good afternoon**

**Nicholan Garcia: Thanks your for the response.**

**Nicholan Garcia: Okay np**

**Nicholan Garcia: What's the name of the band?**

**Nicholan Garcia:**     **For correct spelling**

Salisha James:         Uptown Fascinators

**Nicholan Garcia:**     **Would I be able to get the various layouts yall have. I know you  
said it will take a while but thats okay**

End

### **Anthony Duncan Interview Transcript**

The following is an email interview conducted with Anthony Duncan of Tuners Guild Trinidad and Tobago on March 20<sup>th</sup> 2021.

**1. What is your name and can you tell me about your portfolio?**

Anthony Duncan. My tuning influences were Bertram "Bob" Thomas, Cyril B Henry initially, then later on Junior "Blue" Peters and Lenard "Lenny" Lera

**2. How long have you been a tuner and what bands have you tuned for?**

[approx 15 years, after being a pan builder for the previous 10 years approx  
Made and tuned instruments for Curepe Scherzando, Moods, Pan Elders,  
Fascinators Pan Symphony, Starlift Junior  
Blue Diamonds, Northolus, etc

**3. Have you ever had to produce mid-range pans for multiple bands which had variations in the layout?**

Yes, multiple layouts even for the same band e.g. having both 3-cellos and 4-pan cellos

**4. What do you think influenced the variation in pans and note layouts?**

Requests from the arranger, suggestions introduced by the band's tuners during its development

**5. Why do you believe there were so many variants in the layout of mid-range pans?**

The tuners at the time brought their own preferences, their own signature

**6. Currently, do you think there is a lack of standardization in mid-range pans?**

NOT in the educational system where a clear standard exists

**7. As a tuner, can you describe the most logical layout for a cello pan based on your expertise and why?**

This is largely subjective as some players, educators believe that a synchronized layout is best where it is easy to "predict" where notes are supposed to be, in a consistent manner across the drums.

**8. To date, is there a need for the variation in pan and layouts in the mid-range section?**

Guitar Pans "Desperadoes style" or school ensemble style] all modern guitar pans are based on the wholetone scale but with different ranges from D or C# and different note patterns {school layout like a low double second}.

Triple cello pans diminished pattern from B2 {Curepe Scherzando} or Bb2 {Curepe Sforzata}, 4ths/5ths {Exodus}. Even with the diminished patterns there are variations in note positions, range, and holes for suspending the drums.

4-Cello Augmented or 4th/5ths note layouts with the Augmented style being synchronized in note layouts

**9. Does the note layout of the pan influence the sound of a pan or its quality of sound?**

The note layout does contribute to the overall sound due to sympathetic vibration and resonance, but note shaping and texturing also greatly contributes, together with skirt length.

**10. Do you think there is a need for standardization?**

In the steelbands no, since I have heard and understood how unique instruments contribute to sound color and identity. For example as I have stated previously, some bands use db-Seconds from E, F, or F# with varying skirt lengths as well. These play \* melody, Or \*double up on solo lines, Or \* harmony (like double tenor), Or \* strum so different musical functions

**11. What are your thoughts on standardizing? Do you think standardization would close the door for creativity in steelpan making?**

Yes, since with the standard sized drum, to extend range or change tone quality or attempt easier playability, there is still much experimentation that can be done

**12. Has there ever been any attempt by the Tuners Guild to Standardize Mid-Range Pans?**

No, that is outside of our purview

**13. Would you be able to provide diagrams for the various Mid-Range Pan Layouts (Double Guitar, Three Cello and Four Cello) you would have come across during your career as a Steelpan Maker and Tuner?**

No, there would be far too many as occasionally some tuning establishments have customers from outside TnT who request other layouts some old or simply unique like double and triple Guitar pans from C3 or C#3 {Invaders, semi-invaders, Rudy Smith, Coyle Drums, Ellie Manette, etc.} with variations in range, note placement {synchronized or not}

End.

### **Emerson Joseph Interview Transcript**

The following is an email interview conducted with Emerson Joseph, Captain of Pan Elders on March 21<sup>st</sup> 2021.

**1. What is your name and portfolio in the band?**

My name is Emerson Joseph and I am currently the Captain of the band as well as a tenor and bass player.

**2. How long have you been with the band?**

I have been with the band for the past thirteen (13) years

**3. To your knowledge, what influenced the differentiation in layout?**

The differentiation in the layout of our pan placement and notes was influenced by the pan maker and tuner for the band, Mr. Junior "Blueboy" Peters.

**4. Does the layout of notes on pans in your band vary from that other bands?**

Yes, there are some variations in the layout of notes on our pans compared to other bands and this is a result of Mr. Peters constructing the pans with his style. A few bands in East Trinidad also use Mr. Peters as their pan maker and tuner and due to this, our style of pans are similar to a few bands in the East

**5. Are there differences in the note layout in your mid-section pans, specifically guitars, cellos (three and four)? Even not with the note layout but the physical arrangement of the pans?**

Yes, there are differences in the layout of our mid-section pans, for instance, in our band the double guitars have similar note placement in the individual pans when compared to other bands, but we hang the pans on opposite sides, so where in most bands you would play a note on the left pan, in our band it would be played on the right.

**6. Does the layout of a pan affect whether you will go somewhere to play?**

I believe that this comes down to the ability of the player to adapt quickly to the change in the layout of the instrument.

**7. Do you think the layout of pans affect the bands' ability to recruit players?**

Based on past experiences, the recruitment of players never seemed to be a problem for the band possibly because most of the players were able to adapt to our style of pans

**8. Do you think there is a need for standardization?**

Yes, I believe that there is a need for standardization of the different steelpan ranges as this would remove the need for players having to remember the many different note layouts from band to band. All other instruments are basically standardized so it is about time that we have the steelpan standardized.

**9. Given the culture of sharing music, do you think the lack of standardization in the band influences or affects the players ability to get Music?**

Yes, I believe the lack of standardization in the band affects the players ability to get music because players coming from other bands may have their muscle memory trained to playing certain notes in particular positions and now have to retrain their memory. There is however the few players that learn music by just watching your positions and patterns but they never really remember the actual notes that are being played.

**10. Do you all have a high influx of person coming from the school system and has their every been person having a hard time adapting to the mid-range pans because they may have had a different layout in their school bands?**

Yes we usually have an influx of players from the primary school and secondary school system each year that use our pans for junior panorama competition. It was never our experience having someone showing difficulty to learn music possibly

because they are much younger and more able to quickly adapt to new styles of mid-range pans, also some of the schools that have used our instruments do not possess their own pans in school so they basically just get accustomed to our style because that is the only pan they play.

End

### **Amrit Samaroo Interview Transcript**

The following is an WhatsApp interview conducted with Amrit Samaroo, FCB Supernovaas Co Founder on March 25 2021.

**Nicholan Garcia:**     **Good afternoon Mr Samaroo. Confirming for today at 4pm**

Amrit Samaroo:        Can it be pushed back 1 hour?

Amrit Samaroo:                At 5pm instead?

**Nicholan Garcia:**     **Yes np**

Amrit Samaroo:        Great! Thanks. See you then

**Nicholan Garcia:**     **Yes**

Amrit Samaroo:        I'm set anytime your ready

**Nicholan Garcia:**     **! Soo I will send you all the questions and you can respond to them.**  
**Based on some of your responses i may have other questions**

Amrit Samaroo:        Ok

**Nicholan Garcia:**     **Firstly do I have permission to you the information recieved her in my Research Project?**

Amrit Samaroo:        Yes

**Nicholan Garcia:**     **What is your name and portfolio in the band?**

Amrit Samaroo:        Amrit Samaroo,Leader and Arranger of Supernovas Steel Orchestra

**Nicholan Garcia:**     **How long have you been with the band?**

Amrit Samaroo:        Co founder of the band

**Nicholan Garcia:**     **To your knowledge, what influenced the differentiation in layout?**

Amrit Samaroo:        The middle pans were left to the discretion of the tuner to build based upon consultation with myself.

The first layout we got for them is from Mario Joseph when we started the band in 2010. He however was not able to work with us as our permanent tuner due to travel and other commitments.

So when when we progressed into a large band in 2015-2016 our main background tuner Butch Kelman changed the style and re-did the entire middles which had another layout.

In both instances I trust the judgement of the tuners to pick the layout of the instruments. Mids that is...

**Nicholan Garcia:**     **Does the layout of notes on pans in your band vary from that other bands?**

Amrit Samaroo:        Yes they do have some variations, as alot of bands have differing styles.

**Nicholan Garcia:**     **Are there differences in the note layout in your mid-section pans, specifically guitars, cellos (three and four)? Even not with the note layout but the physical arrangement of the pans?**

Amrit Samaroo:        Not really. There was a period when the two styles existed but all have changed to the layout Butch gave us

**Nicholan Garcia:**     **Does the layout of a pan affect whether you will go somewhere to play?**

Amrit Samaroo: This hasn't really become a factor in our travels as we usually travel with out instruments. With our\* instruments

**Nicholan Garcia: Do you think the layout of pans affect the bands' ability to recruit players?**

Amrit Samaroo: I haven't received any complaints from them to say yes it has. We were filled up to the max this year and even had to borrow instruments for players to play.

**Nicholan Garcia: Do you think there is a need for standardization?**

Amrit Samaroo: There may be a good case for it, but a need... no.

**Nicholan Garcia: Given the culture of sharing music, do you think the lack of standardization in the band influences or affects the players ability to get Music?**

Amrit Samaroo: It affects inexperienced players more than others. Once they understand the layout of the instrument its fine from there . But yes, It does. Hence I try to keep the same style throughout the section.

**Nicholan Garcia: Do you all have a high influx of person coming from the school system and has their every been person having a hard time adapting to the mid-range pans because they may have had a different layout in their school bands?**

Amrit Samaroo: Yes we do have a high influx of these players. But being young, they are used to the instruments within days of practicing on them.

**Nicholan Garcia:**     **It the physical set up of the pan the same for every player? Has there ever been an instance where a requested to have the pan set up differently?**

Amrit Samaroo:        Each set is usually hung the same. We had very few request like that, which were met with a no and they managed quiet well after that.

**Nicholan Garcia:**     **Are all the pans in each of the mid-range sections bored in the same place for them to be hung on the racks?**

Amrit Samaroo:        Yes

**Nicholan Garcia:**     **Also what are the names your band use to refer to Mid range pans**

Amrit Samaroo:        Double Guitar,Three Cello,Four Cello,Quadrophonic

**Nicholan Garcia:**     **Would it be possible to get diagrams of the layouts for your mid-range section pans show in the layout of the pans and placement of the notes? If you band uses different name for the pans labelled please note. (For instance, some bands refer to their three cello as Triple guitars, Four Cellos as Quads or Four Pan.)**

**Nicholan Garcia:**     **Here are some blank diagrams that can be given to note fill in the notes if they align with the note placement and range of your band.**

**Nicholan Garcia:**     **Apologies for the late reply**

**Nicholan Garcia:**     **Thank you so much**

Amrit Samaroo:        

**Nicholan Garcia:**     **When Was the band founded?**

Amrit Samaroo:        2010

**Nicholan Garcia:**     **Can You tell me a bit more about why you think there's no need [for standardization]**

Amrit Samaroo:        Sure. I will a bit later

**Nicholan Garcia:**     **Yes np**

Amrit Samaroo:        Different styles, ranges and setup of the mid range are used by the arrangers and tuners to establish a unique sound for their respective bands. The roles and functions that these mid range instruments play, contrast dramatically from band to band.

Some use cellos to strum, some use them to play melody, some counter melodies and some a combination or all of the above. Hence its setup, range and style maybe tweaked to make the instrument easier for the musicians to play its role effectively, especially given the geography to navigate over multiple pans. This is different from the frontline instruments which play similiar roles, more or less, across all bands.

The truth is, if a player wants to play with your band, they will... regardless of your pan's setup.

Standardisation has many benefits but at what cost? Would it not stand in the way of further development? The instrument is still quite young as compared to the conventional instruments, who's to say what we have cannot be improved upon.

Dont get me wong. I am not at all against Standardisation. But i prefer not to rush it.

End.

## APPENDIX D: SAMPLE OF GOOGLE FORM QUESTIONNAIRE

### The Effect the Absence of Standardization has on Mid-Range Players Survey.

My name is Nicholan Garcia. I am a Final Year Student at the University of the West Indies currently pursuing a B.A in Musical Arts. As part of my requirement in completing my course of study I am doing my Caribbean Studies Project on the absence of standardization in mid-range pans and the effect it has on players as part of the requirement for completing this course of study.

This questionnaire will focus on the effect the lack of standardization has on players of mid range pans. It entails a few background question then goes into how players can be affected.

Thank you in advance for taking the time to fill out this survey.

Do you currently reside in Trinidad and Tobago?

☐ Yes

☐ No

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Age Group

- ☐ 12 years and under
- ☐ 13-17 years old
- ☐ 18-25 years old
- ☐ 26-35 years old
- ☐ 35-45 years old
- ☐ 46-55 years old
- ☐ 56- 60+ years old

How long have you been playing pan?

- ☐ Under 3 years
- ☐ 3-5 years
- ☐ 5-10 years
- ☐ 11-15 years
- ☐ 16+ years

How did you begin playing pan?

If none of the options apply you may add in your answer in other.

- ☐ Invitation to the community band
- ☐ Vacation Pan Camps
- ☐ Invitation to a Junior Band
- ☐ Private Lessons
- ☐ Other: \_\_\_\_\_

Within the mid-range section which is your preferred instrument?

- ☐ Double Guitar
- ☐ Triple Cello
- ☐ Four Cello

Have you played any other mid range pan?

If YES, Please state in other. (Double Guitar, Triple Cello, Four Cello)

- ☐ Yes
- ☐ No
- ☐ Other: \_\_\_\_\_

Do you play for multiple bands or have you ever played for multiple bands?

- ☐ Yes
- ☐ No

How many bands have you played for?

- ☐ 2-3 bands
- ☐ 4-6 bands
- ☐ 7-9 bands
- ☐ 10+

Have you noticed a variation in note layouts when playing for multiple bands?

- ☐ Yes
- ☐ No

What variations or differences have you noticed?

Your answer \_\_\_\_\_

Do you play for a school band or have you ever played for a school band?

- ☐ Yes
- ☐ No



Do you play for a school band or have you ever played for a school band?

- ☐ Yes
- ☐ No

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## The Effect the Absence of Standardization has on Mid-Range Players Survey.

What category have you played for?

Check both boxes if both categories.

- ☐ Primary School
- ☐ Secondary School

Have you ever played for a junior band?

- ☐ Yes
- ☐ No

Have you noticed a difference in note layouts when playing with junior bands compared to school bands?

- ☐ Yes
- ☐ No

What differences have you noticed?

Your answer \_\_\_\_\_

Have you ever played for a community band?

For Instance, A large, medium or small conventional band.

☐ Yes

☐ No

Have you notice any differences in the layout compared to junior bands and school band? Please State.

Your answer

Have you ever experienced difficulty when learning music on a pan with a different layout?

☐ Yes

☐ No

On a scale of 1-5 how difficult was it?

|               |                       |                       |                       |                       |                       |                |
|---------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------|
|               | 1                     | 2                     | 3                     | 4                     | 5                     |                |
| Not Difficult | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Very Difficult |

What difficulties have you encountered?

Your answer

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## The Effect the Absence of Standardization has on Mid-Range Players Survey.

Are you a stage side player?

- ☐ Yes
- ☐ No

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## The Effect the Absence of Standardization has on Mid-Range Players Survey.

Do you have a preferred pan within your section?

A specific pan you would chose each time you attend practice or rehearsal..

- ☐ Yes
- ☐ No

Have you ever had to switch from that preferred instrument within your section?

- ☐ Yes
- ☐ No

What was the reason for switching pans?

Check all boxes which apply to you. Any additional answers may be written in other.

☐ The instrument was damaged

☐ The instrument was out of tune

☐ Other: \_\_\_\_\_

Have you experienced any difficulties in switching pans?

☐ Yes

☐ No

What difficulties have you encountered?

Check all boxes which apply to you. Any additional answers may be written in other.

☐ The notes were in a slightly different position

☐ The pans were hung differently.

☐ The notes were in completely new positions.

☐ The pans were physically positioned differently

☐ Other: \_\_\_\_\_

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## The Effect the Absence of Standardization has on Mid-Range Players Survey.

### Untitled section

Does the variation of note layouts affect you as a mid-range player?

- ☐ Yes
- ☐ No

On a scale of 1-5 how much are you affected?

|              |                       |                       |                       |                       |                       |          |
|--------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------|
|              | 1                     | 2                     | 3                     | 4                     | 5                     |          |
| Not Affected | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Affected |

If yes, How are you affected?

Your answer \_\_\_\_\_

Does the position of notes affect your ability to play difficult melodies?

- ☐ Yes
- ☐ No

How does it affect your ability to play difficult melodies?

Your answer \_\_\_\_\_

Does the layout of the pans discourage you from playing with a band?

- ☐ No
- ☐ Yes

If yes, please state why.

Your answer \_\_\_\_\_

Select the issues you encounter when playing a mid-range pan with a different layout.

- ☐ Irregular hand position
- ☐ Awkward postures
- ☐ Difficulty reaching notes
- ☐ Difficulty retaining Music
- ☐ Awkard body positions.
- ☐ Other: \_\_\_\_\_

What affects you most when playing a pan with a new layout?

- ☐ Pan positions
- ☐ Note Layout
- ☐ The angle the pan is hung
- ☐ The slight twist of notes
- ☐ Other: \_\_\_\_\_

Have you encountered physical aches due to a difference in pan layouts?

- ☐ Yes
- ☐ No

What physical aches have you experienced?

Your answer \_\_\_\_\_

How do you learn music in a pan yard?

- ☐ Aurally, by listening to the pitches and rhythms finding the notes.
- ☐ Visually, by looking at the notes the other player is playing.
- ☐ Reading a score.
- ☐ Other: \_\_\_\_\_

Have you ever noticed a difference in the layout of notes on pans in the same band?

For example, In a mid range section two triple cello had notes in different places on their pans or the notes where set up of the instrument varied or the pans were positioned differently?

☐ Yes

☐ No

In this case, would this make learning music difficult for you?

☐ Yes

☐ No

What problems have you encountered while learning music under this circumstance?

Your answer \_\_\_\_\_

Do you think mid-range pans should be standardized?

☐ Yes

☐ No

☐ Maybe

To what extent would you like the pans to be standardized?

|                  | 1                     | 2                     | 3                     | 4                     | 5                     |              |
|------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------|
| Not Standardized | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | Standardized |

What would you like to see standardized?

Your answer

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## **APPENDIX E: DETAILED RECOLLECTION OF THE STANDARDIZATION TIMELINE**

In 1973, an article was published urging for the standardization of pan styles. It spoke on the call for the official body of the steelbandmen, Pan Trinbago, to intervene in getting tuners, arrangers, and players to discuss the improvement of the steelpan which included reviewing the existing designs, placement of notes, and the range of the notes. (Guardian Newspaper 11). In October of that same year, Junior Pouchet of Sliver Stars Steelband wrote a letter to Pan Trinbago expressing his concern with the accessibility to instruments and his foul treatment by tuners associated with the governing body which was published in the Trinidad Guardian. Within this letter, Pouchet also went on to call for the Standardization of the instrument, a song which has been echoed for time and should be a must for the Organization.

“Now is the time, I think for Steelbandmen to cast aside any prides or prejudices and get on with it. It will be our greatest gift to future generations of pan players (Pouchet 9).”

Another article asked for panmen to “Do away with individualism and work together to safeguard the future of the steelband as a creation from Trinidad and Tobago. (Trinidad Express 15)”

During the 1980s there were more conversations on the topic and what seemed to be more hope for standardizing. In 1985, pan innovator, Bertie Marshall joined the conversation for standardization noting that one of the main obstacles of the instrument was its lack of standardization. From the inconsistency of the material and manufacturing to the inconsistency with tuning and note placement however acknowledged that it was a time-consuming process as all arrangers would have to agree on the note placements. Marshall

went on to mention the need for Government aid and how technological development was introduced for the efficient production of the sunken drums (Marshall 33). By the late 80s, there was progress being made in the move towards standardization. In 1988, A committee for standardization was formed, commenced by the Trinidad and Tobago Bureau of Standards. The specification committee was created to assist with the aspect of the steelpan such as dimensions, quality of materials, placing of notes, transport, storage, and terminology (Kassie 1).

Selwyn Tarradath, Education Officer for Pan Trinbago joined the conversation in 1989, sharing the pros and cons of standardization. At one end, standardization would mean that a pannist can arrive anywhere in the world and have accessibility to an instrument with his customary specification however on the flip side it would lose identity for pan makers and tuners alike. In addition, Tarradath noted that the steelpan was still young in its developmental stages. In this same, the proposal for the Steelpan Standard was released for public comments.

In the 1990s, there was the 1990 Survey which revealed that some steelpan tuners were making efforts to standardized thus, having the 4<sup>th</sup> and 5<sup>th</sup>s Tenor and by 1992, the steelpan standard: Glossary of Terms Relating to the Steelpan: TTS 1 45 000 was approved and available for purchase from the Trinidad and Tobago Standard of Bureau. However, this document only dealt with the prevailing terms surrounding the steelpan and the ranges of the instrument. From 1992 to the early 2000s the topic of standardization stayed relevant as there were disputes over a patent for the instrument.

In 1999, Terry Joseph wrote an article stating that Pan Trinbago President Patrick Arnold approached the government in hopes of pursuit intellectual property rights of the invention and the instrument, but it was believed by many that it was too late to launch such

an initiative (Nathaniel 128). By 2002, two Americans were able to secure a patent for a specific type of processing of the steelpan (126). From here the push to standardize or patent the instrument indigenous to Trinidad and Tobago went unspoken of until 2015.

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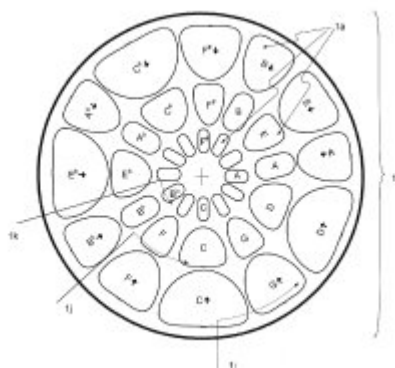
## **APPENDIX F: PREVIEW OF TTBS STEELPAN STANDARD.**

Link to preview document of the standard TTS 412:2015 Steelpan- Terminology for referencing.

[http://kalipa.gottbs.com/embed\\_gen/index.php?doc=2019-04-23-82874TTS%20412-2015%20Standard%20for%20Steelpan.pdf](http://kalipa.gottbs.com/embed_gen/index.php?doc=2019-04-23-82874TTS%20412-2015%20Standard%20for%20Steelpan.pdf)

## APPENDIX G: PREVIEW OF THE G-PAN STANDARD

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
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| <br>US 2009/013851 A1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| <b>United States</b><br><b>Patent Application Publication</b> (16) Pub. No.: <b>US 2009/013851 A1</b><br>Copeland (47) Pub. Date: <b>Jan. 15, 2009</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| (54) <b>G-PAN MEDICAL INSTRUMENT</b> Publication Classification<br>(57) <b>Inventor:</b> <b>Erin B. Copeland, San Francisco, CA</b> (51) <b>Int. Cl.</b><br><b>G06F 11/00</b> (2006.01)<br>Correspondence Address: (52) <b>U.S. Cl.</b> <b>60411 R, 60422</b><br><b>Grossman, Tucker, Foreman &amp; Pflieger, PLLC</b><br>40 South Commercial Street<br>Manchester, NH 03101 (US) (57) <b>ABSTRACT</b><br>An ensemble of acoustic-steriophonic musical instruments, being an innovation which significantly improves upon traditional acoustic stereophonic music art. Said improvements include an extension of note range across the ensemble of G-Pans, a substantial reduction in the number of ensembles required to effectively cover the stereophonic musical range, the use of a component design whereby individual component parts of the instruments, specifically the playing surface, slide, rear attachment, or skirt and the playing stick or mallet, are optimized for their specific function. The application of a variety of techniques for channeling or reducing, non-musical sympathetic vibrations and the inclusion of a variety of mechanical and acoustic resonance designs, to enhance optically the sound projection of the aforementioned instrument. |  |
| (73) <b>Assignee:</b> <b>REPUBLIC OF TRINIDAD AND TOBAGO, Port of Spain (TT)</b><br>(31) <b>Appl. No.:</b> <b>13/377,634</b><br>(22) <b>Filed:</b> <b>Jul. 15, 2008</b><br><b>Related U.S. Application Data</b><br>(63) <b>Continuation-in-part of application No. PCT/TT2005/00004, filed on Jul. 13, 2005.</b><br>(30) <b>Foreign Application Priority Data</b><br>Jul. 12, 2007 (TT) <b>TT/A/2007/000172</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |



Further information on the patent can be found on:

<https://www.panonthenet.com/news/2011/jul/G-Pan-Patent-Copeland-panorama-7-09-2011.htm>

## **APPENDIX H: PREVIEW OF SPECIFICATIONS USED BY PPSC**

Links to Specifications compiled by the Pan in School Coordinating Council for Double Guitar and Three Cello.

- Double Guitar Specification

[https://myuwi-my.sharepoint.com/:w:/g/personal/nicholan\\_garcia\\_my\\_uwi\\_edu/EcJr6AbHLP9PiaeC0HIL1x0BK-A9BpaRC7g69IrOFD1dpw?e=K5gIUN](https://myuwi-my.sharepoint.com/:w:/g/personal/nicholan_garcia_my_uwi_edu/EcJr6AbHLP9PiaeC0HIL1x0BK-A9BpaRC7g69IrOFD1dpw?e=K5gIUN)

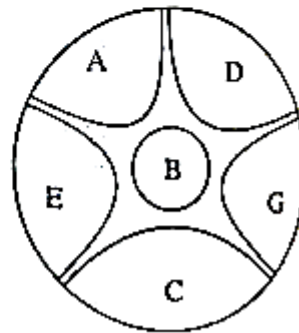
- Three Three Specification

[https://myuwi-my.sharepoint.com/:w:/g/personal/nicholan\\_garcia\\_my\\_uwi\\_edu/EalURghHxK1Njwzf4Ge42qUBEUTxKj9Fq8ERtRH3sPME2A?e=c7QCZ7](https://myuwi-my.sharepoint.com/:w:/g/personal/nicholan_garcia_my_uwi_edu/EalURghHxK1Njwzf4Ge42qUBEUTxKj9Fq8ERtRH3sPME2A?e=c7QCZ7)

## APPENDIX I: EXCERPT ON THE CUATRO PAN

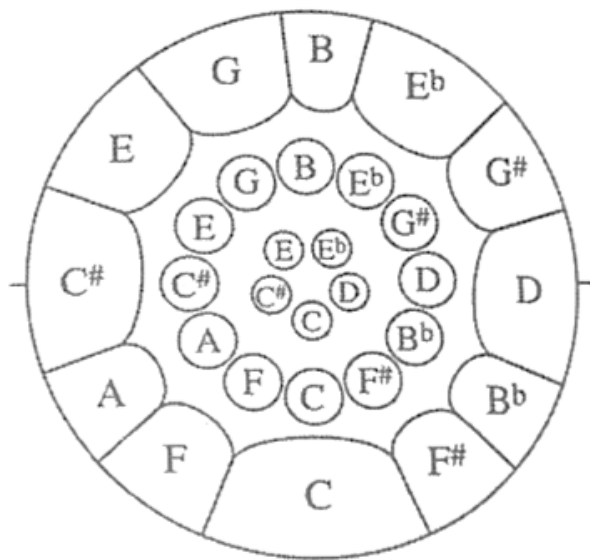
**Strumming pans**—a variety of pans were developed to play an accompanying role to the ping pong (as the tenor kittle originally did). The **second pan** was one of the earliest of these, which Neville Jules remembers first seeing in the Sun Valley steelband, tuned by Sonny Roach. The invention of the second pan has also been credited to Selwyn Gomes of Tropitones (James 1980). Neville Jules tuned a **cuatro pan**, inspired by the Venezuelan instrument by the same name that strums chords in a string band, and the **guitar pan** was another variation on this idea. Several other names were given to low-pitched strumming or accompanying pans, including the **bélé** (a name taken from a folk drum and dance style), the **grundig** (named for a make of German radio), and the **grumbler**.

Fig. A.6. Early strumming pan, perhaps cuatro or guitar (based on pan featured in Coming of Age museum exhibit, Port of Spain, 1993).

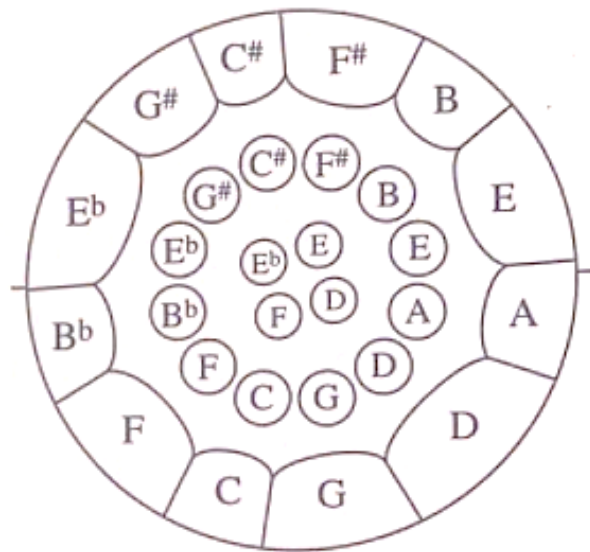


Source: Dudley, Shannon. "Music from Behind the Bridge: Steelband Spirit and Politics in Trinidad and Tobago." Oxford University Press, 2008, p. 278.

## APPENDIX J: THIRDS AND FOURTHS TENOR VERSUS FOURTHS AND FIFTHS TENOR



Thirds and Fourths Style Tenor



Fourths and Fifths Style Tenor

Source: Dudley, Shannon. "Music from Behind the Bridge: Steelband Spirit and Politics in Trinidad and Tobago." Oxford University Press, 2008, pp 280-281.

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