A Gulf Stream Dream:
A Merging of Steel Pan Orchestra and Chamber Orchestra

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#### Abstract

The steel pan and its associated music were first intended to serve carnival and its revelers who would be parading around the streets of Trinidad \& Tobago during carnival time. The tradition has progressed from a single instrument - a pan with two notes - into a steel pan orchestra that includes instrumental voices ranging from soprano to bass. The timbre of the instrument is directly affected when deciding how big or small of a note is desired. This will in turn effect the sound of music when mixing the steel pan with other instruments, whether it be another steel pan or an instrument from the brass or woodwind family. My intention is to begin to expand and modify the performance context and the acoustic and cultural spaces in which this instrumental ensemble has been located and contained.


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## Historical Context

Among Trinidad's one million inhabitants many cultures are represented by individuals of African, Indian, Arab, Chinese, and European heritage. Various immigrants came to the island as labourers working on the plantations and in the oil industry. However, some also came as slaves before the operation of slavery was abolished in 1836. Others came as more or less voluntary contract workers while a lesser number are descendants of the French and British colonial masters. The island displays a complex mix of cultures, races, and traditions.

Located about eleven kilometers from the northeastern shores of Venezuela, Trinidad has evolved into a unique island culture that blends together many of the world's races and traditions. Surprisingly, the close proximity of different peoples and cultures has led to very few conflicts among its inhabitants. Instead, the population expresses itself through a common vehicle - the fête or party - especially in the form of Carnival. If Trinidad's defining feature is the diversity and mixture of its communities then carnival is nothing more or less than external expression and public celebration of these communities. It affords the population a massive opportunity to come together and express themselves in a positive and celebratory manner.

Between the years of 1845 and 1917, Trinidad became home to East Indian, Arabic and Chinese workers through indentureship. During this period, indentured workers from India were permitted to bring their families with them and it was common practice to place people from the same districts in India on the same estate in Trinidad. However, the government authorities made efforts to
separate the different religious communities. Muslims were generally settled on estates in the north while the Hindus were sent to the southern and central areas. Christians were intermingled with both groups. Upon completion of the required five years of indentureship, the Indians were offered a choice - remain in the country with a 'gift' of ten acres of Trinidadian land or return home to India. A majority decided to remain and accept the free grant of land.

Carnival in Trinidad, as in many other Christian areas of the world, began as a feast day before the beginning of the Lenten season. This tradition was already common among many of the white colonialists in the early 1800's. When slavery was abolished in the 1830s the majority of the people on the island were of African and European ancestry. During this time the British colonial government outlawed drumming, stick fighting, masquerading, African derived religions (like those of the Orisa faith and the Spiritual Shouter Baptists or Shango Baptists). Numerous battles were fought between the freed inhabitants and the British colonial government who kept trying to ban drumming and masquerade. The festival eventually found a home on the Monday and Tuesday before Ash Wednesday (the beginning of Lent) and was adopted as an important symbol of Trinidadian culture during the independence movement.

Over the last century, business interests and the middle class constituency (especially those centered in Woodbrook and Port of Spain) have gentrified and popularized the festival by means of formal competitions and planning. This process served to remove some of the "sting" and violent outbreaks that were facets of the festival. There still remain some sectors of Trinidadian society that
consider Carnival as lewd or morally unacceptable and these groups refuse to participate in, or view, the festivities. Nevertheless, Carnival has evolved into a festival celebrated by many of the young and old, representing every class, creed and colour. It is truly a spectacle of creativity and resilience and an exposition of all the nation's strengths and weaknesses that has evolved into the signature event on Trinidad's cultural calendar. Trinidadians and Tobagonians have often referred to Carnival as being the greatest show on earth and this idea is supported by the event's international stature and reputation. A more accurate term that attempts to capture the revelry of Carnival Monday and Tuesday might be "the world's most greatest street party." It remains the mother of West Indianstyle carnivals throughout the Americas. A taste of the experience is available within the diasporic communties in Toronto, New York, London and other Caribbean strongholds but true Trini Carnival will remain elusive until one experiences the source first hand.

Carnival is a unique blend of African dance, European masquerade, Chinese dragon culture, Muslim procession and Hindu drama. Carnival in Trinidad \& Tobago has grown out of the culture of four continents. It offers and creates a cornucopia of colour, food, texture and most of all, music. Carnival leaders have become directors of a masquerade and music festival that often spans a two-month period culminating on the week before Ash Wednesday.

Almost all Trinidad \& Tobago residents participate in the carnival but not all in the same way. Some are leaders and organizers for various activities scheduled across the island during the season. These include mas' camps; stick fighting competitions, limbo (a dance invented on the island of Trinidad), and "Best Village." Best Village is a year round program that provides an opportunity for communities to be more conscious of their culture and environment. The program also seeks to preserve, protect, and build on Trinidad and Tobago's folk traditions, and to facilitate the growth of their national culture through competition in the following categories:

- Traditions of Carnival
- Food and Folk Fair
- Village Olympics
- Village short stories and poetry
- Folk Theatre
- Environmental Sanitation
- Junior Best Village Camps

There is always something taking place on the island and while some keep the masquerade and spectacle movement going others are involved in playing the steel pan - national instrument of Trinidad \& Tobago.

## The Steel Band

The steel pan, also referred to as the steel drum, is an invention of the people of Trinidad and Tobago, which remains to this day the only such invention of the 20th century. The steel pan is an acoustic musical instrument indigenous to Trinidad and its roots can be traced back to the 1930's. Since its creation, the steel pan has gone through numerous innovations. Considering the track record and history of most musical instruments, to accomplish that much in such a relatively short period of space and time is a remarkable testament to the talents, skills and creativity of the people of Trinidad and Tobago.

The steel pan is a pitched percussive acoustic instrument. It consists of a circular playing surface made from steel stretched into a concave shape and attached to a hollow, cylindrical resonator called a skirt. This surface is optimized into a number of isolated convex sections called notes. The instrument is usually played with hand-held, rubber-tipped, non-sonorous mallets called sticks or mallets. During its early stages, the steel pan was played with simple wooden sticks; eventually Ellie Mannette decided to equip the sticks with rubber at one end leaving the other end free to be held by the player. This innovation changed the tone of the instrument from a sharp cold aggressive sound to a richer, mellower, warm timbre. The sticks used are usually made from a single material such as bamboo, metal or different types of wood, while the mallets are a combination of more than one material such as rubber and wood or metal and rubber. The steel pan is a unique instrument and it cannot be definitively classified as either a membranophone or an idiophone.

The following description deals with "construction" or how to make a steel drum into a steel pan. It was written during a two-week period in Trinidad and Tobago in August of 2012. Jason Holder, a world-renowned steel pan maker and pan tuner who lives in Trinidad and Tobago, afforded me the opportunity to watch him make a steel pan. He explained step by step the process of how he goes about making the instrument, in particular, the tenor pan.

## How a Steel Pan is made

## Making and Tuning

Steel pans are made from new or used steel oil drums and the thickness of the drum determines what type of steel pan is possible. Generally, the thicker a drum is the better resonance it will have and so the thicker drums are usually saved for steel pans that will function as the background family. The thinner drums are usually used for the foreground instruments in the orchestra. The material of the drum is usually made up of mild steel or carbon steel. Galvanized oil drums cannot be used to make steel pans as the coating interferes with the tone of the instrument muffling its sound and causing it to sound dull and tired. The quality of the oil drum chosen is of utmost importance. Deposits of concentrated carbon are sometimes found on poor quality steel drums and this may cause a tear or break when stretching the surface of the playing area of the pan. After a suitable drum has been selected the next step is "sinking" - the first part of actually making the pan.

## Sinking

During the sinking process, the bottom part of the oil drum is lowered and shaped into a concave kettle where the notes will be hammered out on the opposite side. There are four steps in the sinking process including marking, lowering, shaping and smoothing. The bottom is lowered and stretched to accommodate the number of notes that will appear on the surface of the pan, the depth of the 'sink' is in direct correlation with the type of pan being made. The sinking is intended to make a suitable overall curvature for the notes. The acoustic laws of nature require that small notes require a narrower thinner surface while bigger notes require a shallower broader surface. The tuner begins by marking the surface of the steel drum with concentric circles allowing the tuner to see the shape of the concave while it is being lowered. Two concentric circles are drawn using a compass. The two circles can also be drawn moving a ruler in a circular motion around the drum using the rim as a guide. The lowering of the drum is done with a sledgehammer with a smooth, rounded surface on one end and a short, specially formed handle on the other. Using a shot put to sink an oil drum is a method sometimes employed by experienced pan tuners. This technique allows the sinking to occur with fewer marks in the metal than the sledgehammer method, however, it is harder to work on the steep sides of the rim and sometimes the tuner will have to revert to the technique of the sledgehammer. Shaping of the drum surface is usually done when roughly $90 \%$ of the sinking process is finished. The tuner then uses the backing sledgehammer (roughly the same size as the sledgehammer) to adjust the drum
into its final shape. It is extremely important that the surface of the drum is smooth as any unevenness will deeply affect the overtones and make tuning even harder. The tool used for smoothing the surface is usually the backing hammer. This process helps to eliminate any part of the surface that may be dented upwards. A skilled pan tuner is able to skip this process as $s / h e$ has mastered the sinking and shaping process with little need to smooth any of the surfaces thereafter.

## Skirting

The skirt of the drum is cut to the length required by the specific instrument. The length of the skirt directly affects the tone and resonance of the finished instrument so that the lower pans require a longer side or skirt be cut from the drum. This gives more resonance to the tuned sound of the lower pans. The oil drum is set on its side and marked in accordance to appropriate length of the skirt. A cutlass (a cut off machete) is used with a hammer to cut away the skirt. The sides are trimmed with a pair of plate shears and then filed to further even out the edge of the skirt. When a note is struck with a mallet, the combination of the skirt's vibration along with the acoustics within the skirt area and, for the longer-skirted pans, the air pockets between the undersides of the skirt in relation to the belly of the pan, resonate to give the instrument its unique sound.

## Marking/Grooving of Notes

In preparation for grooving, a template of desired notes are arranged on the sunken surface of the pan. The pattern is traced using a pencil while a hammer and a pinpoint chisel 'grooves' each note into the surface. The notes found on the perimeter are chiseled first. Each note is divided by the next by a slight depression between each note. The octave of each note is then traced using a template and placed right beside or right in front of its lower octave depending on the pan. The placement of each upper octave and its lower counterpart should be relatively close but not closer than 1 cm . This enables the player to find each octave relatively easily and so that each note vibrates in sympathy with its respective octave. After each musical note area is marked with a 'steel punch,' the pan is then turned upside down and the grooved note areas are tapped outwards with a sledgehammer. The pan is then turned right side up again and a procedure called backing ensues. During this process each note is given its convex shape by lowering the surface between them. The goal of backing is to manipulate the metal down except in areas where the notes are 'puffed.' The purpose of grooving the notes is to establish a consistent pitch within each and confine the vibrations produced by each note to its own sector or playing surface. This process separates each note from the surrounding surface allowing the note to vibrate freely. The completion of note grooving by the tuner results in a softer, easier manipulated buckle of the steel surrounded by a more tempered stiff border.

## Leveling

The grooving process makes each note appear swollen or 'fat.' The surface between the notes has to be formed into a smooth concave shape again. This procedure is referred to as 'taking out the fat.' During the leveling process the actual playing surface of the pan is leveled off. Each note goes through the following process: taking out the fat, flattening the grooves, final shaping, and adjusting each note to be level. The surface of each note is formed as soft bulges while the grooves between each of the notes are formed as an evenly curved basin. When all the grooves are flat and each note has been leveled off each note must then be shaped to a smooth swelling free of any buckles or indentations. Small buckles have acoustic resonances that may affect the harmonics in an unfavourable way, thus making the pan difficult to tune. On the larger notes it is especially important to check that the arch is smooth and the dent curve extends over the whole note. A final smoothing stage is necessary in preparation of tempering the steel pan. The importance of smoothing the pan during this stage cannot be emphasized enough.

## Tempering

In the early days pan makers and tuners accidentally discovered that heating the pan to burn off excess paint also resulted in an instrument that held its tone for a longer period. The "crafting" of the instrument creates considerable stress and tension through the sinking, shaping, grooving and leveling processes. Tempering allows for the molecules in the steel to move around and rearrange
themselves according to the new conditions of the metal resulting in a more homogenous tension over the surface of each note. Tempering is also useful since it hardens the surface between the notes and thus strengthens the pan. Tempering is achieved by placing the playing surface over a strong fire for approximately two minutes. Alternatively the pan is placed on a fire using a stand constructed from the part cut away from the skirt. Another method utilizes a hole in the ground for the fire that is surrounded by rocks upon which the pan is then be placed. The amount of time needed to temper a pan depends on the specific method of tempering. It is important to have the flames burn or heat every part of the playing surface so that the pan gets tempered evenly. If the pan is "over heated" it becomes too slack and is almost impossible to tune. If the pan is not heated enough the metal is too hard to manipulate thus making the pan unworkable. Once the pan has been tempered, it is allowed to cool on its own or splashed with cold water to speed up the cooling process. The pan is then washed with soap and water and any soot or rust is removed using a brush.

## Tuning Process

The tuning of steel pans is much more complicated than many traditional instruments such as brass or string instruments. A string player can easily tune an instrument by increasing or slackening the tension of each string respectively just as a brass players need only to 'push in' or 'pull out' a certain section of their instrument and readjustment of their intonation is complete. The tuning process
for the pan is much more complicated because the pitch and the timbre of the instrument are adjusted independently. In essence, the tuner must be aware of both the fundamental note and the upper partials or harmonics during the tuning process.

There are three main steps in the tuning process:

- Coarse Tuning - the actual tuning of the specific notes to a definite pitch
- Fine-tuning - each note is adjusted with respect to pitch and timbre
- Blending - final tuning after the surface has been established through the previous processes.


## Coarse Tuning

The size of hammer used to tune a pan varies depending on the note being tuned. A heavier hammer provides enough force when tuning the bigger notes where as the smaller hammers allow for the impact to be precise in the positioning of each stroke. A tuning device is sometimes used but more accomplished tuners rely on their ears. The hammer is held in one hand and a mallet is held in another. Each strike of the hammer is followed up with 2 or 3 strokes of the mallet. This process is done over and over until the desired pitch/tone/timbre is achieved on every note. It is important to recognize that the tuning of a pan should start with the process that affects the metal the most and has the greatest impact on the sound. The reason for this is that the stretching of the metal during the tuning will affect surrounding notes as well as the one being
tuned. To enable the notes to sound independently, the metal in the dents and the "joint" at the grooves has to be made softer. This is accomplished by flattening the notes and the restoring them several times. The surface of a note is usually hammered up and down repeatedly until the desired texture in the metal and the desired timbre is achieved.

## Fine-Tuning

The fine-tuning process is similar to the previous tuning except that the pan is moved from sitting on a soft material using the skirt as its prop to hanging on a stand. Now the tuner can exactly hear what the player will hear when playing the instrument. Adjusting the partials and the fundamental note is the objective in fine-tuning but only minor adjustments are sought. If the previous steps in coarse tuning are done properly there will be minimal adjustments made during fine-tuning.

Once the fine-tuning is finished the pans are normally shipped to a chroming factory. The most common method to protect the pan is to electroplate it with a layer of a non-corrosive metal as zinc or chromium. This is an industrial process and basins with electrolytic solution are needed. It is usually done only on small to medium sized instruments such as tenors, double seconds and the cello sections. Larger pans such as basses are usually painted on the side, however, some bands pay extra money to chrome their bass pans. Once the chroming is finished the tuner continues with the last step - blending.

## Blending

The extra layer of metal that has been applied to the pan during the chroming process has caused each notes pitch to shift slightly up or down, therefore each note must me meticulously adjusted back to its original sound. After this is done, the blending ensues. Another pan chosen from the steel orchestra the current pan will be going to, is often employed as a sonic reference for the blending process. The main objective is to adjust the timbre and amplitude of each note, so that the volume or amplitude of each note does not interfere with the previously played notes. An appropriate balance is established so one pan will not be heard as 'overpowering' another pan in an ensemble setting. Blending, like everything else in pan tuning, is done in a circular stepwise process since the blending of one note may affect the surrounding ones.

## Panorama/Festivals

In 1963 the government of Trinidad and Tobago, in conjunction with the National Association of Trinidad and Tobago Steel-bands-men (NATTS), launched a new steel band competition called Panorama. The preliminary round of the competition was judged while the bands were in motion. The instruments were hung on racks and pushed past the judges while the pan men played an arrangement of a current calypso composed during the current carnival season. However, the final round of competition was judged while the bands were stationary and positioned directly in front of the judges at Queen's Park Savannah, also referred to as 'the big yard.' In recent years, judges have now
been travelling from one pan yard to another during the preliminary rounds. After each round of judging, each band is given their score and comments are made from each judge on how they can improve in certain areas. The same judges are used throughout the competition so that by the finals each judge will have heard all the bands and an air of familiarity will be useful when providing feedback to each arranger. This is especially important if more than one band decides to perform the same calypso.

Crowds of supporters religiously follow their favourite steel band every year. Corporate sponsors seize this publicity opportunity and provide sponsorship for the steel bands. Sponsorship money goes towards advertisements for the bands and their sponsors while also generating capital for compensation for composers/arrangers and pan players. It also supports the purchase of new equipment and the maintenance of the racks and instruments. Larger bands have a competitive edge as they produce a more powerful and impressive sound.

Panorama also demanded a new approach to arranging calypsos. Previously, arrangements done for fetes and street parades were simple and not especially suited to competition. Complex introductions and key modulations began to be used in the arrangements and the high quality of musical arrangement remains a key feature of Panorama competitions today.

A Junior Panorama competition aimed at school age children is just as competitive as the senior division. The Junior Panorama serves as an important training ground for the adult Panorama competition and for the advancement of
the steel band movement on a whole.

Panorama type competitions are now held all over the English speaking Caribbean, Canada, the United States, England and some Asian countries. They are planned by local steel band organizations and the structure and adjudication is usually based on that of the Trinidadian Panorama. However, the Trinidad's Panorama competition remains the world's premier steel band competition.

## Structure of Panorama

Panorama is open to both single pan bands and conventional steel bands with three rounds of competition.

- Preliminary Competition
- Semi Finals
- Finals

All competition rounds are currently done while the band is stationary and positioned directly in front of the judges. The preliminary rounds take place at the respective pan yards while the other two rounds of the competition are performed at the Queen's Park Savannah.

There are four main steel band categories in the Panorama competition including:

- Large Conventional Steel bands - minimum of 95 to a maximum of 120 players
- Medium Conventional Steel bands - minimum of 60 to a maximum of 90 players.
- Small Conventional Steel bands - minimum of 35 to a maximum of 55
players.
- Single Pan Bands - minimum of 25 to a maximum of 45 players.

Conventional bands play an arrangement of a calypso for a maximum of eight minutes. In previous years this playing time was ten minutes but because of time constraints the limit is now eight minutes for conventional steel orchestras.

Single pan bands play an arrangement of a calypso for a maximum of six minutes.

Points are awarded for:

- Arrangement
- General Performance
- Tone
- Rhythm

Each category also has sub headings but the aforementioned headings form the basis of the scoring rubrics.

## The Instruments of the Conventional Steel Band

Up until the 1950's, steel pans (steel drums) were hung around the neck of or carried in one hand of the performer. In 1954, legendary pan innovator and arranger Anthony Williams, mounted pans on stands to facilitate a performance at the Trinidad Music Festival. Hanging the pans on stands allowed pannists to play more elaborate musical arrangements. It also meant one person could now play more than one drum at the same time and new types of pans with multiple
drums and wider ranges were developed subsequent to this performance. These stationary bands became known as Conventional Steel bands.

A typical conventional steel band (depending on the size), will contain some or all of the following instruments:

- Frontline pans: tenor pans, double tenor pans, double seconds pans
- Mid-range pan: quadraphonic pans, cello pans, guitar pans
- Background pans: tenor bass pans, six bass pans, seven or nine bass pans
- Engine room: congas, cow bell, drum kit, iron(s), scratcha, shak shak, Timbales

The advantage of having a conventional steel orchestra or arranging for it rather is that all the pans play and modulate in every key. The disadvantages of conventional bands are the number of pan sets that require stands making the band bulky and very hard to move. If it is to be mobile, the pans have to be secured to a truck and wheels must be attached to the stands. Large storage and rehearsal areas are also required.

## Pan Round the Neck Steel bands/Single Pan Bands

Before the 1950's the main function of steel pan was to accompany the street processions of the annual Carnival festivities of Trinidad and Tobago. This required pannists to walk and play the pan at the same time. These traditional types of steel bands were known as "pan round the neck bands" in reference to the way the pans were carried. They have recently been re-branded "single pan
bands." This is thought to be a more appropriate name as each pannist plays one single pan. If the occasion does not require the band to be mobile, stands are used and thus the former name "pan round the neck" is misleading.

## The Instruments of the Single Pan Band

A typical single pan band usually contains the following instruments:

- Frontline pans: single tenor pans, single seconds, harmony pans
- Mid-range pans: single guitar
- Background pans: four note bass pan, dudup.
- Engine room: Drum kit, congas and iron(s)

Single pan bands are both mobile and stationary. They require less storage and less rehearsal and performance space than that of the conventional steel orchestra making transporting of instruments much easier. The band can also be easily integrated with or used as a marching band. The main disadvantage of the single pan bands is the limited ability to modulate. Access to different notes and their octaves are also limited as each pan section of the bands instruments can only have one playing surface. A double guitar pan is reduced to a single playing surface and so too for the rest of the instruments. The only pan that has all notes available is the tenor making it the most versatile instrument in the single pan steel orchestra. Mid-range and background pans cannot do extended solos as they have fewer notes. If the band is mobile the pannist has to bear the weight of the instrument and carrying the pan around the neck requires more coordination and concentration when playing.

## Traditional Steel Pan Instruments

Are they steel pans or steel drums? Both terms are used to describe the same instrument however some common sense may help to determine the proper name. The steel pan is made from a steel drum. Once the drum has been made into an instrument it strips its previous name as its form has changed. Much like a caterpillar becoming a butterfly the steel drum under goes a "metamorphosis" and becomes a steel pan.

The development of this instrument was very informal and involved many people working independently of each other. This led to the same or very similar instruments having different names. Significant progress has been made in the standardization of the instrument but some inconsistencies still remain. The most popular name for the instrument is "steel pans" or "pans" for short. It is the name used in the Caribbean and in academic circles. The name "steel drums" is not as popular and is heard most often in the United States of America. The following section will speak about the instruments typically found in a steel orchestra. While some pans are not standardized with respect to the amount of notes found on a particular instrument, they usually share the same function when it comes to their role in the steel orchestra. The manner in which a pan is utilized within the context of an ensemble is solely up to the composer/arranger.

## Melodic Instruments I-IV:

## I The Tenor Pan Soprano Voice

The tenor is the instrument primarily responsible for playing the melody in a steel orchestra. It is the leading voice in the steel orchestra and was the first pan to be developed. Where other steel pans use more than one drum to make up their instrument the tenor pan is the only steel pan instrument to have all of its notes on one playing surface. The notes on this pan are arranged in a format similar to the circle of fifths, except, the cycle begins with $C$ at the bottom of the pan and continues counter clockwise in leaps of 5ths. This tenor pan is referred to as a 'low $C$ ' tenor because the lowest note is $C$, however, some tenor pans begin on the D right above middle C on the grand staff, therefore, those pans are referred to as 'low D' tenor pans. Some steel orchestras use tenors for music festivals that extend to low A below middle C. These tenors are normally used for music festivals where the music requires an instrument that can play lower than the tenors one is accustomed to seeing in typical steel orchestras.

The typical low $C$ tenor has a 212 -octave range starting from middle $C$ to high $E$ above the grand staff -29 notes in total. A closer look at the positioning of the notes reveals a number of interesting facts or strategies when learning how to play this instrument.

Any chromatic scale is done in a circular motion. Every chromatic step or note is directly across from the previous note. So, a cyclical effect is attained when one plays a chromatic scale on the tenor. Diminished chords and/or
diminished arpeggios can be made up using a 'square' shape. For example: the notes C\#-E-G-Bb are found on the corners of the tenor pan forming a square shape. The same can be said about F\# A C and Eb and so on. Major second and third intervals can be found relatively close to each other regardless of the starting note; leaving fourths \& fifths right beside each other just as they are found on the circle of fifths.

The single playing surface of the tenor makes it an attractive instrument for soloing. Relatively light in comparison to the rest of the instruments found in the steel orchestra, it is mobile and covers a broad range of notes allowing it to play a wide array of melody and accompaniment. This instrument is the "go to" pan for soloists and pan virtuosos for its mobility and single playing surface. The tenor pan has a crisp vibrant sound that can be paired very well with violins and woodwind instruments.

## II Double Tenor mezzo-soprano/alto voice

This instrument's primary function is to support the tenor pan through playing single note harmony against that of the melody line. It has a respectable playing range spanning from low F below middle C to $\mathrm{C} \#$ above the staff in the treble clef. The notes on the pan have been distributed very differently from that of any other pan. First attempts to play this pan are challenging, as there is no set pattern to locating notes. A player has to rely on memory when first playing the double tenor. The instrument uses various shapes in regard to the construction of its notes. Some are very round, some are square and some have
more of an oval shape taking up most of the playing surface. There is also considerable space between some of the notes found on the inner playing surface of the pan. The inclusion of these different types of shaped notes offers a unique distinctive tonal quality identifiably unique to the double tenor. The skirt length also plays a vital roll in its timbre. Since its used to support the melody line the skirt length of this pan is almost the exact same length of the tenor pan, therefore it will be heard almost equally as loud as the tenor, however, having differently shaped notes and a shallower playing surface than that of any other melodic steel instrument is easily heard as a supportive instrument when paired with a tenor pan. It is important to note that this pan is rarely used without having a tenor pan in the same orchestra, in fact, because of its ability to overlap both the tenor and double second range it is easily overlooked by many arrangers/composers. The harmonic support can easily be given to the double seconds and many steel bands in Trinidad rarely use this instrument and it is considered obsolete by many arrangers.

The double tenor can also be used as a background instrument. This instrument is at home helping to extend the background pan's sounding range during extended passages. It is also a very good steel pan to use for countermelody to both the background and foreground alike. It is adept at strumming along with the guitar pan or cello section(s) and it can be used to play alongside the bass pans as well.

## III Double Seconds alto voice

The double seconds, one of the most famous pans, represents the alto voice in the steel orchestra and is often played solo or alongside jazz ensembles. Except in single pan bands, the double seconds use two pans as one instrument. The range of this instrument is similar to that of the double tenor, however, the placement of its notes in particular creates a very different timbre when compared to the double tenor. The placement of notes on the double seconds forms a whole tone scale with every other semitone being found on the alternate pan. Therefore, a chromatic scale will always be played from left to right or right to left depending on which note the scale starts on. The instrument's range spans from low $E$ below middle $C$ to high $F \#$ on the last line of the treble clef. This range results in an overlap with the tenor pan.

The double seconds has a varied practical history with respect to its use in the orchestra. It covers a wide range of notes and sounds beautiful when two or more notes are played at the same time. Originally, this instrument was used to 'strum' and provide harmonic rhythmic support below the tenor pan. Its range makes it a very versatile instrument as it can function as melodic support using a two note-voicing concept to play chords on the pan. Nowadays, it is used to play an octave lower than the tenor either singularly or with chords providing a more defined richer tone to the melody. It is often used to shadow the bass or paired with the other sections of the steel orchestra enhancing lower melodic motifs given to background instruments.

The double seconds' timbre is that of a mellow warm steel quality. It is at home playing in its lower range but can easily be lost among the tenors more piercing capabilities; for that reason, it is usually found playing at the front of the orchestra. Its range creates a 'bridge' between the foreground pans and the background pans and, while some of its notes overlap with the tenor pan its tonal quality is quite different. An experienced ear can easily distinguish between an $A$ on the tenor pan and the A sounding on the double seconds. The double seconds can be a somewhat difficult pan to compose for because of its versatility. Having to compose for an instrument that is as flexible as the double seconds with respect to the fundamentals of melody and harmony can become a bit cumbersome when taking into account the other instruments available and their role in the orchestra. It is very easy for the double seconds 'voice' to be lost in the orchestra, therefore, the composer or arranger must be adept with their knowledge of this pan and its intricacies in order to use it effectively within the orchestra.

## IV Quadraphonic Pan alto/tenor voice

Quadraphonic pans have two horizontally arranged and two vertically arranged pans. The four drums produce altogether 36 notes ranging from $B$ on the second line of the bass clef to Bb third line in the treble clef. Each drum consists of an augmented triad. Quads have the widest range in the band and in addition to playing melodic lines they can strum in the same range as the double seconds or the guitar pans and also play counter melody and have been known
to play bass lines as well. Considered to be the bassoon of the steel orchestra, the quads are at home playing with the foreground, middle ground (cellos) or the background respectively. They produce a warm-rich tonal colour similar to that of the double seconds but are unable to play as loud. A quad section will have to consist of at least three or four players to be effective. The size of the band affects whether a quad can be employed.

## Background instruments I-VI:

## I The Cellos

The name cello in the modern steel orchestra refers to the guitar pan, three pan and four pan collectively. The cello section represents the tenor voice. In order to get a full and complete orchestral sound during the early days of experimentation, Ellie Mannette and Anthony Williams, under the guidance of Lt. Joseph Griffith, sought to extend the range of the steel band. Ellie Mannette was the first person to invent the single guitar pan. Much like the tenor pan, all of the notes on the original guitar pan were on a single vibrating surface. Since lower notes require a larger space the number of drums were increased to two, then three, and now four drums. The cello pans are so called because of their playing range and because they serve the same function as a conventional violoncello.

## II Guitar Pan tenor voice

Much like the double seconds, the guitar pan's notes are also arranged in whole tones on each side. The guitar pan or 'guita' is referred to as such because of its use as a strumming instrument. Most of the guitar pans in modern day steel orchestras begin on low CH or low D an octave below middle C . The placement of notes is slightly different than that of the double seconds, however, every note is found on the same pan as the double seconds. In fact, some guitars are fashioned in a way to look exactly like a double seconds, therefore, it is easy for a double second player to jump to a guitar pan without having to learn where the notes are and the same can be said for a guitar pan player. The guitar pan's range is limited as they have the least amount of notes on a playing surface with the exception of the bass pans. This limitation has made the guitar pan's primary function to be that of strumming, which provides a rhythmic harmonic support to the orchestra. The instrument has uniquely deep and almost ominous sonic quality. When voiced with the orchestra it is sometimes difficult to hear them, however, if removed from the arrangement one definitely hears the difference. The instrument is sometimes paired with other types of cellos offering a wider spread of chord distribution. Its tonal colour provides a rich yet delicate mellow sound that because of its low range of notes can easily be paired with the bass pan.

## III Three Pan tenor voice

This pan is an extension of the guitar pan and for the most part it is used in the same way. It has an extended playing range from low Bb below middle C to B third line on the treble clef. The notes are arranged in diminished seventh chords distributed over three separate drums. Its timbre can be compared to that of the guitar pan, however, its sounding volume is much more powerful. The wide range of lower notes on this pan make it a practical instrument for low melodic lines, counter melody and strumming. A chromatic scale is played effortlessly as the player can easily move across each pan in a clockwise/counter clockwise motion.

## IV Four Pan tenor/baritone voice

The four pan is traditionally the lowest of all the cello pans due to the fact that it is extended one note below the three pan. The musical range is just above two and a half octaves beginning on low $A$ in the first space in the bass clef to $\mathrm{C} \#$ third space in the treble clef. Each drum consists of seven notes and is directly related to the structure of the tenor pan. When compared, the tenor and four pans share an interesting structural relationship. Eb-Bb-F and following the tenor pan in a counter clockwise motion we find C-G-D then A-E-B and finally F\#-C\#G\#. Each of these four combinations of notes make up the individual four drums of the four pans. The four pan is a unique instrument in that it has expanded the use of the cello section. Not only is it used to strum but, its larger tonal range makes it well- suited to play melody lines and it is often paired with the tenor pan
to help support the melody.

## V Tenor Bass

The tenor bass is the 'high' end of the bass section. Similar to the four pan, it consists of four drums that are cut at two thirds of the original drum length. Each drum consists of five notes that are placed in a chromatic fashion similar to that of the three pan but include one additional drum. The tenor bass represents the baritone voice and fits between the cello and bass voice. In many instances the tenor bass plays the same line as the other bass pans but an octave higher, thereby assisting the clarity of the lower bass pan section. The lowest note is $F$ below the bass staff up to middle C .

## VI Six Bass

The six bass is a set of full size oil drums. This configuration can also be found in sets of seven, nine and twelve but the most popular format is the six bass. The range of the six bass extends approximately two octaves from Bb below the bass clef to Eb located in the third space of the bass clef. The instruments design is to put notes with fourth or fifth intervals on the same drum as often as possible.

The nine and twelve bass sets extend half an octave lower than the six bass. As with some of the previous instruments discussed earlier, the bass pan evolved to multiple pans as the desired range of notes increased.

The seven bass is a unique instrument and can be looked at as an extension of the six bass. It has the same range as the six bass with a couple more notes just below and above the average range of the six bass. Some of its notes are split, meaning, the upper octave is found on another drum than that of the lower octave. These 'split' notes are required to be played at the same time, therefore, a player will be seen having to play some notes using both hands but simultaneously playing different drums.

## My musical journey

When I was around the age of four I remember my mother would always be playing her classical records - Beethoven, Mozart, and sometimes Handel. She would regale us with stories of how and when she fell in love with classical music. She would tell us that every Sunday the radio stations in Trinidad would play a tremendous amount of classical music by composers from around the world. My mother knew a vast amount of music and shared it with us whenever she had the chance. Eventually, I would go into her record selection and pick out my favourite Waldo De Los Rios album entitled Sinfonia. This is one of my favourite albums to this day. It features many of the more popular composers of classical music including Schubert, Tchaikovsky, Mozart, Haydn and Brahms. Each track included the original music being performed by an orchestra but it was altered. Waldo arranged for additional instruments such as the guitar to strum along to the original piece of music. Sometimes he would include a drum set or
increase the tempo of the tune being played. He was one of the first composers/arrangers to have a musical influence in my life. Waldo appealed to me for his transformative ability of changing popular classical tunes into pop music. I remember propping myself under a chair with both speakers on either side of my body listening intently for my favourite parts. I did this on a daily basis for about three or four years.

In the summer of 1989 I began playing the steel pan. I would actually follow my older brother to the pan yard with curiosity. I didn't start playing with the band until one evening while walking to the pan yard I heard the band practicing the $1^{\text {st }}$ movement of Beethoven's Symphony No. 5 in C minor. I enjoyed the fact that the band was playing music I already knew. I identified with it and I felt like I knew the music more than the band members at the time. However, the steel pan was still a new instrument for me, but knowing the music prior to me playing the instrument gave me confidence. I was interested in learning how to play Beethoven's music more than knowing the fundamentals of playing the steel pan. Eventually I was hooked, and every summer thereafter I was playing steel pan in parades, music festivals, community gatherings and other showcases held around the city of Toronto. At the age of ten I began learning how to play the clarinet. I auditioned and was accepted at Cardinal Carter Academy for the Arts; thus began my formal training in music theory and history. I also began playing the oboe, the trumpet and the saxophone. I had an affinity for woodwinds and tried to play as much music as I could during my high school years.

One early evening I stayed after school to work on some music our teacher gave to us during the day. I was in the hallway and could hear the symphonic band practicing in the auditorium. I ended up sneaking into the rehearsal and sat in the front row. The band was practicing for the Kiwanis festival and the tune they were rehearsing was "Les Misérables." It was a reduced score for symphonic band. I took out my clarinet and started picking out notes to the part that was being rehearsed over and over again. There was a chord that the band would land on and every time they landed on the chord I would change what note I would play. Once I realized that all the notes I chose sounded 'good' to me I didn't understand at the time that I was playing around with harmony. I can almost 'feel' the music through my body as if it was resonating through me. I wanted to continue feeling this 'feeling' so I went to great lengths to find out exactly what was going on. When I spoke to my music teacher about my experience she gave me an impromptu lesson in harmony and why the notes I chose-although they were all different-worked with what the rest of the band was doing. I think this is why I became interested in composing. I've always wanted to reproduce this feeling of 'wholeness' or 'oneness' that I felt in the auditorium when I was a young aspiring musician in grade seven. The conversation I had with my music teacher that day seemed so elementary in retrospect, but served as a vehicle that catapulted me into a musical realm I never knew I would be a part of.

In the summer of 1998 I became the in house arranger to Afropan's stageside steel orchestra. I was responsible for all of the music played between the months of September and June. This position lasted for about ten years officially, until I started my own band in the fall of 2007, the Souls of Steel Orchestra. During the early nineties to roughly 1998 I didn't realize how much music I had soaked up both at the pan yard and in high school. I was exposed to soca, calypso, classical, zouk, reggae, country, blues, jazz, Indian raga, gamelan and many other genres of music.

The various performances I was responsible to do music for challenged me to be slightly different in my approach to arranging each song. I always liked to feature conventional instruments with the steel orchestra and vice versa. Because most of the music I chose to do with Afropan was from popular genres of music within the Caribbean community, I had to hone my musical strategies and think of different ways of arranging a tune to keep it fresh. I would sometimes revert to my early years of listening to Waldo De Los Rios and ask myself 'what would Waldo do to make this piece different?' I listened to more symphonies and string quartet music than the average teenager. Each arrangement enhanced my composing \& arranging proficiency allowing me to highlight the element of music that I enjoyed the most, orchestration. I enjoy the sound of two or more instruments playing in unison, especially when the instruments belong to two different instrument families. A flute playing a $C$ seems to tell more of a story when paired with a violin, or an oboe or a trumpet. The timbre of the note changes with each additional instrument, adding to the
musical fabric of the composition.

For the most part, my music experience from elementary school to university dealt with playing compositions by other composers or arranging other composer's music. I never would have thought I would be composing my own music. I believe it was a question of ego. I use to think that it was impossible to compose music better than the composers/musicians I idolized growing up, so, I never wrote my own compositions. I am, however, very good at arranging music.

When I began teaching at Holy Name elementary school in the year 2007, I was presented with a life changing experience. The children at Holy Name were granted a new set of steel pans from the board of education; however, the music teacher at the school had no experience teaching a steel orchestra. The children were offered a sub par music experience and ended up disliking the steel pans. Once I entered the school I was faced with opposition to say the least. The children didn't want to play steel pan because of the previous year's experience with their former music teacher, so they flocked to the conventional woodwind and brass instruments. For the first time I had to run a combined music class of conventional instruments and steel instruments. Throughout the coming weeks the children slowly began to return their conventional instruments and decided to give steel pan a chance. Finally, by the mid part of October, all of the students were on steel pans and I was tasked with teaching at least three Christmas tunes for the upcoming Christmas concert. The arranging and teaching skills I acquired over the years made teaching easy and almost instinctual. I was very relaxed and
confident when I was teaching the music program at Holy Name. I began thinking to myself 'maybe I can start writing my own music.' And so, I did. I first began writing down ideas like chord progressions and simple melodies. I remember going over music that l've arranged over the years and tried to pull out any arrangements that included music I composed specifically for the tune in question. Most of the music I was able to get my hands and ears on consisted of intros, outros, and a whole bunch of transitions from one key to another. I realized most of the work was actually already completed or at least started; I just needed to piece some ideas together, think of a strong melody and put it all together.

## Genesis of Steel Tonality

In September of 2005 I began my second year at York University. During this time I had the opportunity to be a student in Professor Patricia Wait's class 'Music in Cultures II.' This proved to be one of my favourite classes because of its concentration on classical music. We were given a list of pieces that we had to memorize from various eras. We had to memorize the composer, the era and also be able to provide a brief description as to why these pieces were significant to what we were learning. One of the compositions was Mozart's $23^{\text {rd }}$ piano concerto in A, first movement. I remember listening to this piece over and over again. It was the first piano piece I dissected and really listened to over and over again. Written in double exposition, this piece is nothing short of a masterpiece. While all of his piano concertos are remarkable, in my opinion, his piano concerto
in $A$ is particularly brilliant. This piece single handedly inspired me to write my own piece of music.

My love for the steel pan and the symphony orchestra has always been at the forefront of my musical life, as a result, it was only fitting that I marry the two and compose a musical work featuring both orchestras, however, I didn't know where to begin as l've never attempted such a musical feat. Composing was not my strong suit so I had to begin with what I had at the time, the melody. At the risk of sounding cliché the melody came to me while I was traveling to New Jersey by train. I began by listening to a bunch of different music in my iPod while at the same time staring at the blank Finale screen on my laptop in front of me. I just started playing around with a couple of notes and slowly but surely a melody popped into my head. It was a modest melody, rather simple and delicate, but effective. Originally, I began composing the piece using the woodwind section only, including French horns in F, partly because I was not as comfortable writing for percussion and brass as I was for woodwinds. Having played clarinet and oboe for a number of years gave me the confidence to write without having to second guess the appropriate playing ranges of woodwinds and how to effectively pair two or more instruments. I found that listening to a number of Beethoven symphonies over the years especially his $9^{\text {th }}$ symphony, $3^{\text {rd }}$ movement, aided me when trying to figure out different ways for the woodwinds to weave in and out of the music without disrupting the melody line. I was pleasantly surprised at how the music just seemed to flow and by the end of the train ride I had most of the first section completed.

# Steel Tonality 

## An original composition for Steel Orchestra

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## Chamber Orchestra

The following material presents a detailed analysis and description of my original composition entitled "Steel Tonality." The material is presented in succinct style to enable a close reading of the score during real time performance.

## Bars 1-17

- The beginning of the piece opens with the lower strings playing a descending diatonic phrase. In the fifth bar the violas then play a simple, ominous, melody joined by the bassoon and first clarinet. A single oboe accompanies the melody alongside the bass.

Bars 17-33

- The oboe modestly introduces the main theme in bar 33 that is destined to permeate this composition.
- Using a concept similar to sonata form, this is the principal subject that will be used not only as a melodic theme but also to segue into other musical ideas thereby connecting one section to another.
- Followed by a short plucked interplay between the string sections in bars

17 to 21 , the balance of the orchestra joins in hammering out a short-lived Eb major chord. In bar 26, pivoting on a concert C the bass strings, tuba and timpani introduce a rhythmic passage while the strings and woodwinds play a rising arpeggiation lead by a single oboe supported by chords in the French horn and trombone sections. Another Eb major chord is arpeggiated ending the previous section and setting up the thematic interplay about to ensue in bar 33.

## Bars 33-45

- Typically, the instrument responsible for the rhythmic movement of chords in a steel orchestra is the guitar pan. There are many patterns that a composer/arranger may use to achieve the desired rhythmic pulse when composing for the steel pan. This section is reminiscent of the strumming pattern found in the cello section of the steel orchestra. The bass line beginning in bar 33 (deeply rooted in the typical ii-V-I cliché) supports the melody as it is tossed around in the woodwind section. The second clarinet and viola imitate a rhythmic pattern normally associated with the four-pan section

Bar 45

- First appearance of the tenor pan playing the principal subject.
- Tenor pan performs a scalar passage to F minor. Denoting a light simple melody the oboe sets up a 'give and take' involving the solo tenor pan and orchestra. A chromatic passage sounded by the tenor marks the end of this minute interplay.


## Bars 74-93

- Main theme now employed briefly as a lightly developed motif ornamented with chords. Statements between the orchestra and soloist compliment a closer succession of the theme resulting in a cadence; tuning the ear to Ab.

Bars 93-109

- The $1^{\text {st }}$ and $2^{\text {nd }}$ violins supported by the violas introduce an arranged section based on the principal theme. The principal subject is woven into this polyphonic texture through the bass strings and $1^{\text {st }}$ bassoon playing the main melodic theme. The music heard in the upper strings is then repeated in the bass section with the woodwinds counter melody.

Bars 109-133

- The soloist returns with a repeated arrangement of rhythmic chords supported by the string section marked pizzicato. The main theme is heard ever so slightly in the bass strings just before the soloist embarks on
a series of scalar passages; releasing the tension built up in bars 109 to 113. The first part of the movement comes to a close with the repeat of a previously played rhythmic pattern heard during the introduction. The strings pluck at attention and conclude on an $f$ minor chord supported by flute and bassoon.


## Bars 134-166

- The Steel orchestra is introduced for the first time playing through a progression of chords resulting on a tonal shift to $G$ minor. A lively interaction between both orchestras is achieved first with the introduction of a rhythmic pattern sounded on the note $G$.
- Staggered entries in both orchestras begin to weave their way into the sonic fabric created by the steel orchestra. Each additional orchestral instrument's entry is paired with a different section of the steel orchestra. With the addition of the steel orchestra this piece has moved into a dynamic interplay between both orchestras. The tonal centre is based on $G$ with the music moving between $G$ minor and $E$ Aeolian respectively. The woodwinds join the melody whisking the music into $G$ major.

Bars 166-177

- This begins with a transitory shift to $G$ major for contrast, tonal relief, and formal demarcation begins in bar 166. This section acts almost as an announcement. It is bright, rhythmic and involves both orchestras now
working together as a single unit. Supporting a rhythm heard in the tenor and double second section; descending half note lines are first played by the French horns and bassoons, clarinets and trumpets, then by the trumpets and flute and finally only by the trumpets. A short-lived section is presented to facilitate the move back to the tonic key.


## Bars 177-193

- Both steel and conventional orchestras play the principal subject again, and so the music does not sound ambiguous and distorted, each section of the conventional orchestra has been paired with particular instruments in the steel orchestra. The tenor and double second pans play the main theme heard at the beginning of the movement alongside the first and second violins. Woodwinds interject periodically either by means of the theme or counter melody/harmony. Both bass sections employ a typical Trinidadian calypso bass line of an eighth and sixteenth quarter rests followed by a sixteenth and two eighth notes. The French horns join the bass pans and string bass sections, playing the bass line periodically. The timpani accent the same rhythm heard in the bass sections. The violas go beyond the melody sometimes teaming up with the bass section every so often
- This section is entirely new and does not feature any of the previously heard material. There is no reference to the principal subject and exists as a through-composed section of music. A sequence of sixteenth notes joined by an obstinate descending melody played by the violins, woodwinds, tenor and double seconds is heard above a typical calypso bass line of a sixteenth followed by two eighths. While the timpani play the identical rhythm heard in the bass section every other bar, the trumpets and French horns joined by the violins initiate a 'means to the end' with a rising melodic motif. In contrast, the flutes and clarinets along with the bassoon play their part by adding a descending motif. A dramatic chromatic scale brings us to the closing section.


## Bars 211 - end of piece

- The tenor and double seconds along with the woodwinds state the main theme for the last time; slightly altered to go along with the chord progression. The first and second violins use tremolo in conjunction with the four pans and guitar pans. In a fashion honouring Beethoven the movement comes to an elaborate ending with a repeated chromatic scale in the tonic key followed by a crescendo.


## Genesis of Carib Moon

On a clear night in Trinidad I was coming home from visiting some family members at my uncle's house. While I was walking back into the village where I was staying (Peyton Ville located in the countryside of Arima) I looked across the horizon and noticed that the moon was unusually low and very close to the horizon. It was the biggest moon I had ever seen and was the colour of a deep orange bordering on the colour red. I stood in awe for almost ten minutes and thought that I would probably never have this experience again. I did not know the rarity of this sight. An Internet search generated numerous sites that discussing a phenomenon called "Midnight Sun." This is a naturally occurring phenomenon that normally takes place during the times that the sun is at its highest and lowest point in relation to the earth. While the moon I had just witnessed was not the sun, its brilliance was reminiscent of the light that emanates from the sun. I then did some research on the moon and found out that the colour of the moon is directly related to the amount of atmosphere the moonlight must pass through. The closer the moon is to the horizon, the more light is scattered by the earth's atmosphere than when it is directly overhead. When I finally walked away from the orange moon I almost became obsessed with the memory of what I saw. I made it my mission to see it again and even began annoying my family by talking about what I witnessed the night before. I had feelings of regret that I didn't take a picture which then led to uncertainty of seeing it again. These feelings became the foundation of my composition. A couple of weeks passed before I sat down and started to work on a melody
associated with my experience.

Though not ubiquitous, the emotions induced by different keys in music are usually similar for most listeners. Beethoven often used different keys in his compositions to evoke a particular emotion and although not everyone has the same reaction to every key, in general and when compiled, major keys are usually associated with love, hope, joy and pleasure while minor keys usually depict emotions of sadness, gloomy and anxious emotions. Therefore, if the hallelujah chorus were composed in a minor key, the lyrics of joy and hope the piece tries to convey would be undermined by the music.

Carib Moon was composed during the months of October and November in the year 2011. I originally wanted to compose a piece that used the flute as the main solo instrument, but I realized that the flute is not very loud and may be drowned out by the volume of the steel orchestra, even at a piano dynamic. I then turned to different instruments like the clarinet and the French horn but I finally decided on the bassoon. I have always loved the sound of the bassoon and the chance to compose a piece of music for it presented a welcome challenge. Known for its versatility and its tonal quality I believed that this instrument would sound brilliant when paired with the steel orchestra.

Written in C minor/Eb major respectively, this body of work is governed by an unadorned melody supported by an uncomplicated chord progression. I believe that it is an accurate reflection of my lyrical side. It is a simple melody • that catches the ear right from the start.

# Carib Moon <br> <br> A single movement composed for Solo Bassoon 

 <br> <br> A single movement composed for Solo Bassoon}

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## Steel Orchestra

The following offers an analysis of my composition Carib Moon and is intended as a running commentary to support the reading of the score during performance.

## Bars 1-8

- Section A opens up with a light melody played by the bassoon supported by a C minor chord played by the steel orchestra


## Bars 9-14

- A small turn in melody directs the ear to the approaching B section that switches from C minor to the relative major key of Eb major.

Bars 14-26

- The bassoon now plays a different melody distinguishing the previous $A$ section from the current $B$ section. A unison rhythm heard in the previous section attached to a motif at the beginning of the chorus brings both the orchestra and soloist together momentarily.
- A cadence in bar 21 brings us to a cantabile section where the soloist
outlines a series of pitches juxtaposed an F major and Fm chord respectively. The supporting orchestra makes use of the rhythmic motif found at the beginning of the $B$ section. Supporting a held note of a high D in the bassoon, the borrowed rhythmic motif closes the previous section and brings the music back to the beginning of the piece.


## Bars 26-47

- The music repeats previously heard material


## Bars 47-58

- Beginning at bar 47 there is a Gmin7b5 chord sustained in the cello section of the steel orchestra. A series of drawn-out phrases ensues in the bassoon solo while the bass pans adorn each phrase undulating an $8^{\text {th }}$ note melody of their own. Contrapuntal interplay between the bassoon and bass pan(s) is set in motion. It is important to note that the bass line in music from the Caribbean (especially Trinidad and Jamaica) serves as an essential driving force in terms of both harmonic motion and rhythm. An interesting bass line can make or break the popularity of a soca or reggae tune. Sustaining the chord in the guitar and four pan sections isolates the bass line in this section. The bass section is playing a simple yet effective bass line and it is easily heard due to the lack of complexity in the rest of the orchestra. The tension caused by the sustained chord and ostinato bass line is released with the arrival of the cadence.


## Bars 58-60

- The bassoon outlines an Eb major triad in between accented drops in the steel orchestra.

Bars 60-74

- For the first time the steel orchestra takes the song by its reins, and in true Trinidadian Lavway fashion, the orchestra is heard for the first time as the driving force in the composition. Again, the motif that begins the $B$ section is used to develop this section slightly.
- A Lavway is a musical term coined in Trinidad from the French patois word 'La voix' meaning 'the voice.' Its rhythm was assimilated into calypso and has become one of the recognizable sections when used in compositions found in Trinidad \& Tobago. There is usually a call and response or exchange associated with the Lavway.
- The Lavway happens in between bars 64 to 68 . The melody instruments play a repeated phrase at the beginning of each bar and the bassoon close to the end of each bar answers it.
- This section concludes almost as fast as it begins with a series of scalar passages in the bassoon part.
- The transitional section of this piece employs a series of scalar passages played by the Tenor, double Tenor and Double seconds. The cello section strums the chord progression over a typical calypso bass line that normally begins after the down beat. The bassoon can be heard playing the motif previously heard in the chorus.


## Bars 84-100

- Bar 84 opens with the bassoon playing a virtuosic melodic gesture accompanied by the bass pans while the rest of the orchestra remains tacet. These bars are momentarily centered in G minor before moving between Bb major and eventually back to C minor.


## Bars 100-112

- Bar 100 incorporates a minor 'jam’ featuring a homophonic melodic rhythm heard throughout the orchestra except in the guitar pan section. The bassoon chimes in every now and then with a sixteenth followed by a whole note motif until eventually it rests while the orchestra repeats the section.
- A second cantabile section opens up with the bassoon over a series of arpeggiated chords in the cello section. The bass line propels the progression forward with quarter and eighth note beats.
- Two bars before bar 112 a subtle key change from C minor to Eb major is established between the bassoon and orchestra. An arpeggio is heard in the bassoon solo part and then imitated in the steel orchestra a bar later. Bar 112 features a cheerful melody played by 4-pan and 3-pan section(s) and supported by the bass and guitar pan parts respectively. Written in the relative major to C minor, the steel orchestra is given a chance to play freely up until the bassoon joins the bass line in bar 144.


## Bars 148 - end of piece

- Now only the steel orchestra plays material from the beginning that the bassoon previously played as a solo. The bassoon joins the orchestra for the final cadence in bar 157 to end the piece.

Whenever I listen to this piece I am reminded of the dedication and responsibility I have to the steel pan community not only in Toronto but also around the world. I dedicate this composition to all the pan players around the world that enjoy steel pan music. I am especially humbled by the fact that I have successfully composed a piece featuring a solo instrument that has never played alongside a steel orchestra. There is a freeing experience that comes as a result of playing a steel pan; an instrument born out of oppression is now heard in concert halls around the world. It has moved from a carnival instrument and has progressed to be a part of the musical fabric that makes up this wondrous world.

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## Steel Tonality

Score
Composer: André Rouse




Steel Tonality















Steel Tonality



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## Carib Moon

Score
André Rouse


































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Carib Moon












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Carib Moon


