A Brief History:

Origins of the Steel Drum and *Rhythmical Steel*

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Introduction

The Steel Drum as a musical instrument was created on the **Caribbean island of Trinidad,** just off the coast of Venezuela. The date-of-creation for the instrument has been furiously debated. However, this much we know: Ellie Mannette, in 1946, was the very first person to fashion his "pan" out of the now standard 55 gallon steel drum. Let us look first, though, at the events that lead up to this fortunate invention.

The Use of Skin Drums

Mardis Gras, the celebration leading into the Lenten Season, was brought to the islands of Trinidad and Tobago by the French. During Mardis Gras the French celebrants would march the streets as they had previously done in Paris. The islanders saw this celebration and naturally wanted to participate, so they jumped into the parade lines with their "talking drums" and began enthusiastically drumming out their own style of celebration.

Talking drums, a type of skin drum, were normally used to communicate over a distance between the various groups of the island. The British authorities who were in rule over Trinidad and Tobago at the time eventually banned the use of these drums out of a fear that the islanders would plot and organize an uprising by means of their rhythmical communications.

Tamboo-Bamboo

Still desiring to celebrate, but without the use of their drums, the islanders began cutting lengths of bamboo and hollowing them out. They would pound the longer lengths of bamboo against the road as the marched, while the shorter lengths, called "cutters", they would hold along their forearms and strike with a mallet. This use of bamboo to create variously toned percussive instruments marks the beginning of the Tamboo-Bamboo bands which lasted into the 1930's.

Eventually the Tamboo-Bamboo bands grew larger and more numerous and began fighting, one band against the next, in gang-like fashion. The players began sharpening the ends of their bamboo joints, particularly cutters, with machetes, fashioning dangerous spear-like weapons. In 1934 the British authorities stepped in once again to ban Tamboo-Bamboo instruments due to the destruction of the bamboo plantations by illegal harvesting as well as the violence perpetuated amongst the bands.

Garbage Can Drumming

The paraders, however, still jumped in line with their bamboo instruments during Carnival of 1935. As a result there was another big fight between the bands. People scattered and hid, both from the police and from rival band members. Alexander Ford of Alexander's Rag-Time Band took up a garbage can and started beating out a rhythm in an effort to regroup his band members and march them back home. This garbage can "drum" caught on quickly and soon hundreds of people were dumping trash into the streets to use the garbage cans in their march.

The following year, 1936, some of the bands still brought out their bamboo instruments, but Alexander's Rag-Time Band brought out garbage cans. At this time there were two "models" of garbage can drum: the bass-kettle, and the biscuit drum. The bass-kettles were long and narrow, made from grease kettles 2.5 feet long. The bottoms were knocked out and their tops were popped up to form a convex playing surface. These one note instruments were played using a make-shift mallet with a rag or towel wrapped around one end. Biscuit drums were similar to the 55 gallon barrels now used, only shorter. They had a hole in the bottom and were hung around the drummer's neck. They were played by slapping the side of the drum, creating a large resounding bass note.

As they passed through **Port-of-Spain,** the rioting Tamboo-Bamboo bands took notice of this garbage can band and its huge sound. Ellie Mannette said of this sound that it was rather more racket than music, but very loud and exited.

With this, garbage can bands became the rage, so much so that it became a nuisance. No garbage can was safe. The youths of Trinidad were appropriating every garbage can they could find. Even those garbage cans securely chained were liberated by the rhythmically crazed youths.

Ellie Mannette

Baby's Bath Time and the Barracuda

In 1937 Ellie Mannette began playing for Alexander's Rag-Time Band. By that time Winston "Spree" Simon was shaping 4 or 5 concave notes into the bulging convex surface. Ellie tried to copy Simon's design but could not get the notes to tune, so in frustration, he decided to reverse the process, and shaped convex notes onto a sunken concave surface. This was the first "sinking" of a drum, and it worked. Ellie began making his own drums and because of the shape of them people would tease him, asking him if he was building a tub in which to bathe his babies. His drums, therefore, became known as "Baby's Bath Time". Using this design, by 1941 Ellie was tuning in 6 or 7 notes on his drums.

Due to World War II, the British canceled the Carnival celebrations from 1941-1945. Ellie used this time to experiment and improve his pan. Using a 35 gallon silt-oil barrel he was able to get a total of 9 notes in circumference around the drum with two notes in the center. Upon this accomplishment all the builders began using 35 gallon barrels.

By the time the war ended Ellie's drum had become famous. He called it the "Barracuda," because it was the "baddest" drum on the island. On May 6, 1945, V-E Day, the authorities allowed a one day "jump-up" to celebrate the Allies' victory in Europe. During this celebration one of the larger bands, Tokyo, crashed Ellie's band, the Invaders, and smashed their drums. The Barracuda, however, they kept. The tied it up in a tree in the area known as John-John. Tokyo taunted Ellie saying, "If you're a bad boy come and get your pan." Ellie told them to keep it.

The First 55

In 1946 there was to be a music contest on the island, and Ellie had a plan. He wanted to unveil the biggest and the best steel drum ever made. This drum he made from a 55 gallon barrel, while everyone else was still using the 35 gallon barrels. He tuned in 14 notes, 5 more than on his famous Barracuda. He hid it in a sugar sack and showed his drum to no one.

Ellie Mannette was contestant number seven. When it was his turn to perform he walked onto the stage with his large sugar sack in hand. At last he unveiled his new creation and, holding it up on his left shoulder, he played Beethoven's *Für Elise* and Brahms' *Lullaby*. The crowd went wild. His drum was, as he described, like an organ against the other "pip-squeak" drums. This new drum was lower pitched than the other pans, and had a haunting melodic tone.

Soon after this the newspapers were interviewing him and he was asked to play on the radio. He played two songs, again, this time it was Brahms' *Lullaby* and Schubert's *Ave Maria*. In addition to this, there was also rumor of a scholarship to study music in Great Britain.

Steel Accompaniment

Ellie’s next goal was to create accompanying instruments for the ping-pong, as the leads were then called. So he took the biscuit drum, also called the "boom", split it into 5 notes and created the "tuned-boom". In 1947 he created the "balay", or the single second. The notes were lower than on the ping-pong, took up more space and therefore the single second had only 9 notes. In 1948 he built the first single guitars, known then as the "grundig".

Around the same time Neville Jules came up with a single bass drum with 4 notes: G-A-C-D. It stood three feet tall, but was much lighter than today’s basses. A strap was attached to it and the player wore it around the neck with the bottom extending behind him.

T.A.S.P.O.

In 1950 the British government sent a conductor from a police brass band to Trinidad in order to teach a group of bandsmen, including Ellie, "real music" so that they could be brought to London for a celebration in 1951. The conductor was Lieutenant Griffith; the band, made up of one member from each of the local bands, was called the T.A.S.P.O.: the Trinidad All-Star Percussion Orchestra. Up until this time the builders knew nothing of chromatics and music theory. The band was told that before they could go to London the drums must be chromatic and that there must be a fuller bass. When the group performed in London they took with them a lead, a single second, double guitars, double tune-booms and a triple bass.

In 1952 Ellie was formally offered the scholarship to study music in London. He was tempted by the offer, but finally decided against going in order to build more drums. A decision, which to this day Ellie insists, he does not regret.

Development and Obsession

The development of his drums to their present state was largely random and accidental. He would make a drum, then realize that he needed a new note that he didn’t have on the drum, and so he would make a new drum. This cycle continued until the complete drum was made. There was no conscious decision concerning which harmonic patterns to use. He had no idea until later that his seconds consisted of whole note and augmented harmonic patterns, or that his cellos were diminished.

The creation of the cellos is a story of itself. Being obsessed with the creation of his steel drum instruments, Ellie dreamt about the cellos and the layout of the notes one night. When he awoke he quickly wrote down the patterns, which are the very same as in use today. His tenor basses were created in the same fashion.

Chronology

Following is a brief chronology of Ellie Mannette’s drums:

1937-First drum with concave surface

1946-Lead (Ping-Pong), first drum made from a 55 gallon barrel

1946-Tuned-Boom (precursor to the Cellos)

1947-Single Second (Balay)

1948-Single Guitars (Grundig)

1950-Triple Bass

1952-Double Seconds

1954-Double Guitars

1956-Triple Cellos

1960-Tenor Basses

Credit Where Credit Is Due

Ellie Mannette was not the only builder developing the steel drums, however. As already noted Alexander Ford was the first to bang on the garbage can and Winston "Spree" Simon was the first to get notes on his drums. Tony Williams introduced the Cycle of 5ths to the steel drum world. Bertie Marshall created the Double Tenors and was the first person to put the octaves and 2nd octaves into the notes. Rudolph Charles created the Quads. Though Ellie was not the only builder developing them, he has been one of the most influential of the early builders, and is greatly respected for cleaning up the tone quality of the drums. Where the Carnival players went for drums that were extremely bright and loud, Ellie chose a mellower tone as a foundation to build upon, a palette of tones he felt could be used with greater complexity and subtlety.

Hostile Environment

All of the work of the steel drum builders was done amidst a society somewhat hostile to the steel drum. The bands were considered a nuisance except at Carnival. Neighbors would often report them to the police complaining about the noise of the practicing bands. The police in return would raid the panyards and smash up the instruments. To continue practicing the bands had to rebuild their instruments and find new places to practice. All this was done for a love of music, a love of the pan. It was an avocation in which there was no money and little respect except among one’s own peers. This has changed somewhat since the steel drum’s arrival in America.

Coming to America

Ellie, though not the first to bring the drums to America, had stayed in America previously to help build a Navy steel drum band. He returned, however, to Trinidad after facing the racism of the mid-20th century South. Murray Narell, father to pan players Jeff and Andy Narell, convinced Ellie to come to America again in 1967. He came to build steel drums for an inner city youth program and to build for Narell's family. Over a period of five years he had started approximately 12-15 bands. These died out due to a lack of government funding.

One of the bands, the Blandettes, performed at Queens College in New York City. Members of the New York City Board of Education attended the performance and later requested that Ellie get the certification needed in order to work for the Board of Education.

Concert Pitch

In 1971 he met James Leyden, a music teacher from Chappaqua, NY who asked him to tune some drums he had purchased from a music store. Having tuned them by ear, which was the typical procedure at the time, Leyden informed Ellie that while the drums were in tune, they were not in concert pitch. Concert pitch was a new concept for Ellie, so Leyden invited him to come to his school. Leyden and Ellie worked closely together for several years.

In either 1974 or 1975 Leyden's steel band was invited to perform at the MENC NY State Convention. This gained Ellie and the steel drums exposure and gradually orders began coming in for steel drums.

Harmonics and the Strobe

At about this time Leyden convinced Ellie that in order to get proper concert pitch he must use a strobe tuner. Working with Leyden and other teachers Ellie began to increasingly learn more about the quality of sound. Up to this time only octaves had been added to the fundamental notes to help them ring out more, but now Ellie began using other harmonics for a more mature and richer sound.

College Programs

Ellie started working with Howard University in Washington D.C. and then with other college programs. It was these college programs, perhaps more than anything else, which helped spread the gospel of pan and legitimize the steel drum as an instrument rather than a novelty.

In 1984, apparently for the first time ever, a workshop was held on the construction of the steel drum instrument in Canon Beach, Oregon as part of the Haystack Program of Portland State University. Ellie Mannette taught the classes on construction, while Jim Leyden taught a class on steel drum music and performance.

Dennis Martin & Rhythmical Steel

Sesame Street Exposure

Late in 1981 Dennis Martin, a maintenance man by trade, had been watching *Sesame Street* with his oldest daughter, Sadie. A man came on the program playing two shiny instruments that he called "steel pianos." That night Dennis insisted that his wife, Sharon, watch the same episode. A year and a half later Sharon began calling around to find a set of steel pianos for Dennis as a surprise gift. No one knew anything about them until she called PSU. They were apparently just then in the process of typing out the schedule for that summer's Haystack Program, which was to have classes on the playing and construction of steel drum instruments. Dennis Martin was the first person signed up for the world's very first steel drum workshop.

Ellie's Apprentice

Dennis went to that Haystack steel drum workshop in 1984 and then again in 1985. Only that year Ellie had made mention of his need for a shop to work out of for a while. Sharon Martin promptly let Ellie know that Dennis had a workshop and that he would be more than welcome to stay with them for as long as he wanted.

So in August of 1985 Ellie came to stay with the Martins. While he was there he worked intensively with Dennis, teaching him what he knew of the instruments and their construction. But he also took notice of the Martin children. The older two kids, Chris (10) and Sadie (7), had both been taking piano lessons and Ellie saw their devotion to music as they practiced no less than an hour each, seven days a week. He decided that the Martins needed a band, to give the kids a positive musical outlet and to keep their mom out of trouble. Eventually Sharon began to learn the trade, too. According to Ellie, she was the first woman to ever sink and shape steel drums.

Ellie built them a complete band and taught them how to use the instruments, how to play real calypso, how to properly strike the notes, and how to voice their own arrangements for steel drum, starting with *The Sound of Silence*, the Martin family's first arrangement.

In 1986 Dennis went to Haystack for the third time, but this time he went as Ellie's assistant. Dennis already had a healthy start as a steel drum builder and over the years he has used his innovative talents to improve the tools of the trade as well as the process of steel drum creation, itself.

Dennis the Bored

Dennis grew up bored. To cure boredom he tinkered with things, played with electricity, built stuff, innovated. Whenever a fuse was blown in the house Dennis' mother would come running to find out if he was hurt. He had a reputation for blowing fuses. Neighbors come to him to figure out how to fix things, how to get them to work the way they want them to. Eventually he started work at a paper bag plant were he not only maintained but also

designed and built equipment for them. And he still is known to play with electricity... but that is another story all together. Suffice it to say that Dennis holds unique credentials particularly useful in this infant craft of steel drum building.

Rhythmical Innovations

His innovations in the world of the steel pan craftsmanship started right away in 1984. At that time each note of the drum was laid out by tedious individual measurement. He decided that it would be more efficient to create a pattern, not just for the inside notes-templates for these were already in use-but for the outside notes as well.

In 1985 Dennis created his own design for steel drum stands.

1986 saw Dennis' invention of turntables. Now the builder could pre-cut the drum close to the final length, and strap it down on a convenient turntable. Prior to this builders worked with the full length of the original barrels, cumbersomely turning the entire drum as needed.

In 1987 Dennis took a section of leftover railroad track and fashioned his own hammers, specifically with the drums in mind. One of these hammers can still be seen from time to time in pictures of Ellie, which surface in various steel drum articles. Dennis then began building hammers out of scrap steel that he could find around the bag plant. His hammers were taken to West Virginia University when Ellie went to teach steel drum construction there. WVU sent the hammers to California where Dennis' design was copied, reproduced and then sold to the students of the University Tuning Project. As a side note to the hammers, it was Dennis who finally began using silicon caulking on the handles to prevent blisters, an improvement for which many hands can be very thankful.

After years of endless spray cans, the Martins finally bought an air compressor in 1991 and began to paint their drums with professional auto-body paint. Previously drums were either chromed, left bare or spray painted with cans almost as an after thought and more for the protection of the steel against rust than for appearance. Professional grade paint serves as a less troublesome and more cost efficient alternative to chroming.

Previous to 1992 Dennis suffered either ripped out drums or slow, laborious sinking. At Haystack that year he noted that the students were sinking the drums at a tremendous rate, but without ripping. He realized that, being outside, the drums were warmed by the sun, making the metal softer and more malleable. On returning home he first started out by using a heat lamp to warm the metal, but quickly decided upon heat-guns that he mounted on an adjustable stand. Around the same time Dennis also started successfully using power tools for the grooving process.

In 1995 Dennis created the Alto Pan and the Double Bass Pans, smaller instruments made from 30 gallon barrels used by younger students in the Orff Schulwerk school music programs. As opposed to other "mini pans" which are more or less glorified toys, these pans are real steel drum instruments, but designed with the young student in mind. They are tuned for the durability needed in the classroom environment.

This process of craftsmanship and innovation continues to this day in Rhythmical Steel's workshop, as we build our student and professional instruments.

Being the only acoustic instrument invented in the 20th century, the craft of building steel drums is still in its infancy. The history of the steel drum continues to develop through the efforts of builders around the globe such as Ellie Mannette and Dennis Martin.

Gibson, Gary. "Ellie Mannette on the Beginnings of Pan in Trinidad."
Percussive Notes. April 1986. pp. 34-37

Mannette, Ellie. Lecture on the origins of the steel drum.
Unpublished personal video-tape. August 1990.

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