PERCUSSIVE NOTES

Vol. 60, No.6, December 2022

Mongo Santamaria's *Afro Roots*

Expanded Vibraphone Techniques

The Inverted Flam Tap

Creative Programming

***Looney Tunes* Percussion**

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As I write this message, I am a week removed from an extraordinary PASIC 2022! More than 5,500 people attended this year's convention and experienced a depth and breadth of artistry, industry, and educational insight many in our community will never forget. The artistry displayed in concerts by such artists as Amadinda, Ju Percussion, Pedrito Martinez Group, Heartland Marimba Quartet, Katarzyna Mycka and Conrado Moya, Quey Percussion duo, Dave Weckl, the entire New Music Research Day lineup, and many others reminds us of the diversity of our art form and the inspiring levels of excellence it represents!

The industry and innovation displayed in our International Expo Hall is always exciting to take in and continues to move our instruments and craft forward. The many clinics, masterclasses, FUNdamental sessions, panel discussions, and scholarly presentations by such leaders in our field as Jacob Nissly, Ed Stephan, Brian Zator, Benny Greb, and John Psathas, to mention a few, continue the arc of sharing indispensable pedagogical and intellectual information that thousands will take home and use as motivation to continue in their distinct percussive paths. If PASIC 2021 was a celebration of us gathering together again after the pandemic, for me PASIC 2022 was an affirmation of its expectation, significance, and permanence in the life of our community.

I took over as PAS President from my good friend and former president Christopher Hanning. Chris had the unenviable task of helping steer the society through the early months of the pandemic. His wisdom, patience, and good judgment will always be inspirational to me, and I am grateful to have learned from watching his steady hand and humble spirit. In 2021, when I became president after only two years on the Executive Committee, I was immeasurably fortunate to have Joshua Simonds at the helm in Indianapolis. Joshua's passion for his staff, commitment to the future of PAS, and creative enthusiastic energy were pivotal in helping me understand my role and enabling me to assist with helping PAS these past two years.

I also want to thank my colleagues on the EC. Working with you and getting to know each of you has been an honor. You all bring tremendous wisdom and important expertise to your leadership roles, which broadened my perspective and continues to help inform my understanding of our vast community. And finally, to the tremendous PAS staff, who I have been fortunate to get to know and now call my friends, thank you for your tireless commitment and willingness to go above and beyond time and time again!

It has been such an honor to serve as president of the Percussive Arts Society these past two years. Many people asked me why I decided to accept the opportunity to be president. As with most decisions, there isn't a simple answer. But for me it came down to one important issue: I needed to step up and contribute to an organization that has given me so much opportunity over the course of my career. I have no regrets and only gratitude for the many people I've gotten to know and work with and for the rewarding moments in seeing us collectively sustain and grow a community that has been so central for many of us.

My wife told me that if I didn't accept the opportunity to be president, I would regret it. And of course, she was right! But it doesn't take a position like the presidency of PAS to be a leader and

make a difference in something that matters to you. I encourage everyone to get involved. The opportunity to meet new friends and colleagues, shape the future of our field, and share your unique voice is something I believe is worth the effort. Stay connected and stay involved! Thanks to all who have helped us these past couple years; I look forward to serving with you in the years ahead.

As I close, I wish everyone great holiday season and the best in the new year!

Cheers,

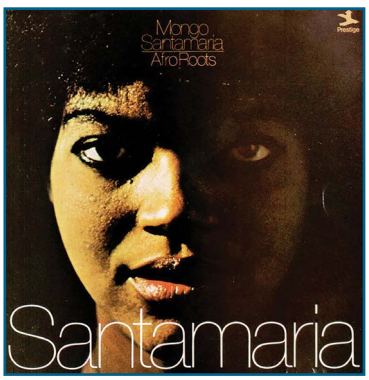
MJB

Afro Roots by Mongo Santamaría: A Listening Guide

By Robert J. Damm

Fifty years after its release, the double album *Afro Roots* still merits a careful listen. For several generations of percussionists, the album was the textbook on Afro-Cuban folkloric rhythms. For subsequent generations, books, articles, and videos supplemented this seminal source. However, much misinformation persists on the internet, and important details about these recordings are missing. Unfortunately, all the musicians who played on the album have since passed away, so it is too late to query primary sources about exactly how the tracks were created, what instruments were used, who played each of the parts, and what influences inspired each track.

Included in this listening guide are comments about specific musical elements that make each track noteworthy. Transcriptions of some conga rhythms are included to help clarify styles, but these examples represent only interpretations of traditional patterns whose variations are played in myriad ways. There is no suggestion by the author that the transcription is the one, only, and "correct" way of playing these rhythms. For pieces with lyrics, translations or interpretations are provided to the extent possible. The meaning of Afro-Cuban music comes from understanding the people who make it, the historical contexts in which it originated, and the communal settings in which ritual, singing, dancing, and drumming are integrated in cultural celebration.



Cuban percussionist and bandleader Ramón "Mongo" Santamaría Rodríguez (1917–2003) played bongos and congas in musical groups in Havana before moving to New York City in 1950. Mongo was the conguero in bands of Pérez Prado, Tito Puente, Cal Tjader, and later the Fania All-Stars. His earliest albums as a bandleader were *Afro-Cuban Drums* (1952), *Drums and Chants* (1954), and *Tambores y Cantos* (1955). Two Fantasy-label albums, *Yambu* (1958) and *Mongo* (1959), were reissued in 1972 on the Prestige label as a double vinyl album called *Afro-Roots*. The

vinyl compilation album included all the original 22 tracks of traditional Afro-Cuban music, including the tune that would become a Latin jazz standard: "Afro Blue." The CD version (1989) left out the track "Mi Guagauncó" for space reasons.

The recordings featured an all-star rhythm section with Francisco Aguabella, Willie Bobo, Modesto Duran, Pablo Mozo, Al McKibbon (bass), Armando Peraza, Emil Richards, Cal Tjader, and Carlos Vidal. The public knew these musicians because of their popular-music contributions. For example, Mongo played conga for Tito Puente and Cal Tjader; Aguabella played conga for Frank Sinatra and Peggy Lee.

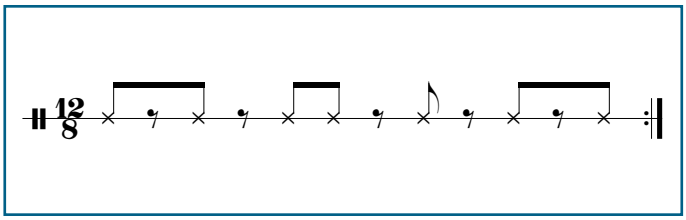
The *Afro Roots* recordings demonstrate that their knowledge went much deeper than what became known to the world as salsa. Ralph J. Gleason wrote in the liner notes for *Afro Roots* that "Most of the numbers in the package, incidentally, are compositions of Mongo Santamaría, and several of them include chants and have symbolic and direct references to various aspects of authentic Afro-Cuban culture." Most of the music on the albums is traditional folkloric music, imbued with great creativity and improvisational skill by the singers, instrumentalists, and composers. It is a fascinating record featuring ferocious playing from beginning to end.

YAMBU

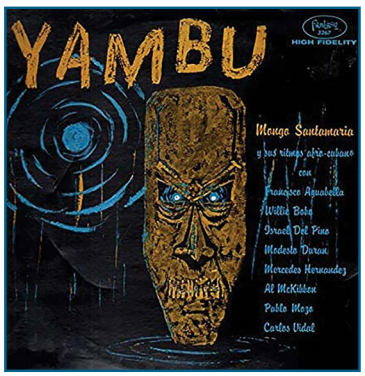
"Ye Ye"

The album opens with "Ye Ye," a *bembé* featuring three congas accompanied by the traditional bell pattern typically notated in 12/8 meter (see Figure 1).

Figure 1: Afro-Cuban 12/8 (3:2) Traditional Bell



Aguabella played the lead drum with bare hands, and his drum language and phrasing is remarkable. Mongo acknowledged Francisco's contribution to the folkloric music on the *Yambu* album: "Francisco is from Matanzas, and I'm from Havana, so we have a different approach, but we work well together, and I think we did a beautiful job. For that album, I wanted to capture what I heard when I was young, the feeling of fascination I got when I first began to listen to the old men playing traditional music."[1]



Born in Matanzas, Francisco Aguabella (1925–2010) performed with many great artists including Dizzy Gillespie, Tito Puente, Eddie Palmieri, Cachao, Poncho Sanchez, and Carlos Santana. Aguabella explained his involvement in the making of Mongo's *Yambu* album: "[Mongo] wanted to do an album of traditional Cuban drumming. He called me up and said, 'I know you know more about the rhythms than I do. Why don't you come to the studio and do the arranging and we'll divide the royalties?' So, I went in and made the charts and directed the production. I even wrote some songs for it."[2]

"Ye Ye" is a *bembé* dedicated to Ochún, the goddess of femininity, fertility, beauty, love, and sensuality. Ochún is typically portrayed in her gold finery, fanning herself and holding a mirror as she admires herself. *Bembé* is a genre of music as well as a ceremony in honor of the *orishas* (Yoruba deities). Mercedes Hernandez was the lead vocalist prominently featured in the call-and-response singing. The lyrics may be written phonetically as "Ochún baileo, Ye Ye maileo. Ochún baileo, alawé acatem baeleo." The lyrics are not in Spanish. When asked to translate the song, a native Yoruba speaker from Nigeria said, "It is not Yoruba!" They are singing in *Lucumí,* which is the Cuban New World language derived from Yoruba. Enslaved people were brought to Cuba from a variety of different places in Africa, but the main language groups in the western part of Cuba, where Mongo and Aguabella lived, were Yoruba from Nigeria, Arará from Benin, Bricamo from the Efik people of Cameroon, and the Bantu language speakers from what is now the Democratic Republic of the Congo. To this day, music is still sung in these languages or their derivatives. Linguistically, *Lucumí* is a lexicon of words and phrases, largely devoid of syntax, "embedded in musical aesthetics, bodily experience, and deeply emotional devotional intent."[3]

"Congobel"

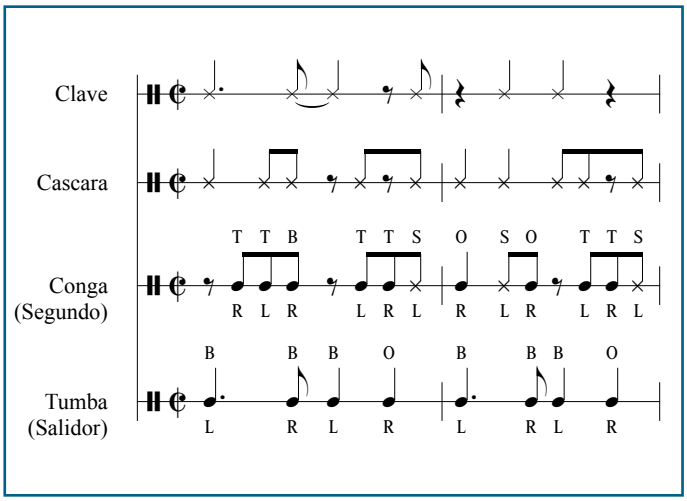
"Congobel" is a percussion-only track consisting of triangle, cowbell, and supporting conga accompaniment, over which the lead conga solo was played with one hand and one stick, sometimes striking the shell of the drum. Liner notes on the original *Yambu* album indicate that Pablo Mozo played the triangle here but do not say who is playing the other parts. The meter is straight duple, reminiscent of a Congo style called *makuta*. It is difficult to discern the beginning of the simple phrase by the bell and accompanying conga. The prominent use of triangle is quite mysterious, as that instrument is rarely played in traditional Afro-Cuban music. The track's title further indicates that the music was Congo-inspired.

"Macunsere"

"Macunsere" is rumba *guaguancó* [see Figure 2). Rumba, an important part of contemporary Afro-Cuban identity and expression, began in the 19th century as a fusion of Spanish and West/Central African elements. Three basic rumba forms evolved: *yambú*, *guaguancó*, and *colúmbia*. In this track, congas, cáscara,

and cajón accompany the call-and-response Spanish chant. The conga drum melody is on the "two side" of the clave in a call-and-response relationship with the "three side" of the clave.

Figure 2: (3:2) Rumba Guaguancó
O = open; S = slap; B = bass; T = "tip" (fingers); R = right; L = left



Macunsere seems to be neither a Spanish nor a *Lucumí* word. In Puerto Rico, there are phrases called "*le lo lai*," which are nonlexical words used to set the key of the song. In Cuban rumba there is something similar called the *diana*, which is nonlexical syllables used to set the tonality of the song because there is no tonal instrument accompaniment. *Abakuá* music uses a similar vocal device.

This track is *guaguancó* style. Structurally, it starts with the *diana* developing into the main theme and goes into the call-and-response section.

Regarding instrumentation, the origin of the cajón (wooden box) in Cuba is essential to understanding Cuban music. Use of the cajón came about because use of drums was generally outlawed for enslaved people who continued to be persecuted after slavery was officially abolished in 1886. The smaller box, like the one playing the quinto part on this track, was what the Spanish used to ship candles to light the churches. The bigger boxes were used to ship *bacalao* (dried and salted codfish) for the sailors on the boats. The big crates sounded like low drums, and the small candle box became the quinto (small drum).

This track shows the integration of the conga drum and cajón as far back as the 1950s. The support drums are congas, but the solo is played on the small cajón. John Santos provided his thoughts on the soloist: "Mongo's quinto cajón is impeccably tasty and quite different from his iconic conga solos. It's most likely Mongo who played that improvised quinto based on three observations: 1. Francisco is singing, and you can tell he's not playing quinto simultaneously; 2. They were probably not overdubbing in those days; 3. There is a great photo of Mongo playing the quinto cajón on the original record."[4]

"Timbales y Bongo"

"Timbales y Bongo" is a fast rumba. *Jiribilla*, a term sometimes applied to rumbas played in a very fast tempo for the purpose of demonstration, is appropriate here. According to the liner notes on the original 1958 album, Mongo played bongos with sticks, Willie Bobo was on timbales, and Aguabella played three conga drums. Mongo became known for the novelty of playing bongos with sticks, but he was not the first to do so, since Cándido was doing it during shows at the Tropicana in Cuba in 1951.[5]

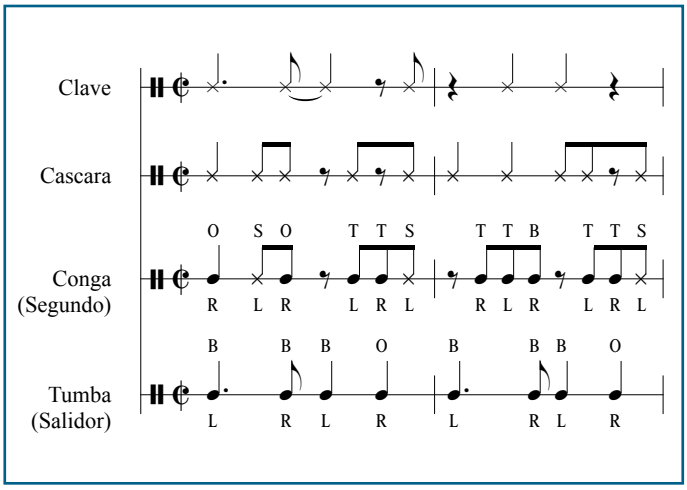
The soloing is fabulous. After the rubato timbale solo, the drumming continues with a medium tempo mambo tumbao. Bobo takes a solo, but instead of playing the *cáscara* on a piece of wood, he plays it on the timbales. Pablo Mozo doubles the *cáscara* with the sticks on wood, probably on the side of a conga drum, as he is pictured doing so on the back cover of the original record. Notice two sets of timbales (four drums) matching the Tito Puente records of the same era.

Next comes bongó with sticks. This is incredibly clean execution at a blistering tempo on a long track, a tour de force! For rumba *colúmbia*, the percussionists expertly straddle the line between duple and triple meter. Listen to the accompaniment that Aguabella is playing by himself when normally there would be two supporting drummers. He brilliantly plays three drums, improvising and continually developing the melodic conversation.

"Yambú"

The track "Yambú," with lyrics that reference the *yambú* dance, must have been viewed as a *yambú* by Mongo and the other performers. It also sounds like rumba *guaguancó*, which, as a subgenre of rumba, shares many characteristics with its slower-tempo precursor. This track includes the characteristic *cáscara* and the *segundo* "melody" on the "three side" of the clave. Early recordings of rumba *guaguancó* indicate that the open tone "melody" of the *segunda* drum was often, if not mostly, played on the "three side" of the clave (see Figure 3).

Figure 3: Old Style "Crossed" (3:2) Rumba Guaguancó
O = open; S = slap; B = bass; T = "tip" (fingers); R = right; L = left



In modern style, those two notes go opposite the clave on the "two side." Also, the *segundo* drum part is now commonly referred to as *"tre-dó"* (*tres-dos*). In its initial style, and sometimes today, a *yambú* would be played entirely on cajones, but here there are two congas and a box. Traditionally *yambú* was performed on packing crates because "rumberos made their money as dock workers, and rumba was regularly heard on the docks."[6] The song mentions that *yambú* is from the Spanish era and includes the stock phrase "*El yambú no se vacuna.*" The repetitious chant of *"gozar este yambú de lo nuevo"* translates as "enjoy *yambú* again."

Spanish

Aquí entre las flores cantaremos, hermano,
quisiera quisiera quisiera
quisiera verte encendida,
prendida de llamas ardiendo
desde la calle corriendo
hasta que te dure la vida.

Aquí entre las flores cantaremos, hermano,
Oye, Yambú yambú yambú, caballero
Gozar este yambú de lo nuevo.
Yambú yambú yambú, caballero
Gozar este yambú de lo nuevo. (3 times)

…Oye, ¿quién no goza con mi yambú?
…Yambú Yambú de tiempo España
…Mi yambú no se vacuna (etc.)

English

Here among the flowers, let's sing, brother
I would like to see you afire,
ignited with burning flames
From the street running
as long as you live [literal]
I would like to see you ablaze with the
same passion from the street going
throughout your life [poetic interpretation].

Here among the flowers, let's sing, brother
Listen, Yambú, sir
Enjoy this yambú again.

Hey, who doesn't enjoy my yambú?
Yambú from the time of Spain
My yambú doesn't use *vacuna*.

Yambú is a very elegant dance. It does not have the *vacunao,* a pelvic thrust on the part of the man, which is the job of the woman to avoid. *Vacunao* is like a game. If the male can surprise his partner and she misses it, then he wins. If she blocks his *vacunao*, then the female wins. The dance mimics a rooster and a hen in the farmyard.

"Bricamo"

The track "Bricamo" is named for a Cuban women's society, which uses its own distinct rhythms and dances. In Matanzas, the female descendants of the Efik people, have a ritual dance where they sing and dance in the street with branches of green leaves. The Efik people came to Cuba from the Calabari region in Cameroon, so they identify themselves as "*Carabalí*." Some clarification about this designation follows:

> From the 1640s through the 1840s, the main coastal port of the Cross River region — today known as Calabar, Nigeria — was an embarking point for the Atlantic slave trade. People forcibly migrated from there to the Caribbean and Americas were known as "Carabalí" (reversing the l and the r) after this port, which was known as "Old Calabar" from the 17th to the early 20th centuries. Being among the most linguistically diverse regions of Africa, migrants from the Cross River region were rarely identified by tribal affiliations, which were numerous and uncertain, but instead by their point of departure.[7]

In "Bricamo," the bell, congas, and the *palitos* rhythm played on the shell of a drum or other wooden surface on this track may be notated in 12/8. Liner notes on the original album list Aguabella as playing "bass conga drum" for this track. In *Carabalí* music, the supporting parts are played on the high drums and the solo is played on the low drum. Unfortunately, the low drum cannot be heard well on this recording because the microphone was too far away.

John Santos adds: "This is an amazing performance! It is not obvious to me where the phrase begins. Vintage Francisco! The lead drum is clear in its bass tones. The open tones, muffs, and slaps are audible, but not quite as present."[8]

"Longoito"

The track "Longoito" represents the *bembé* genre. The Afro-Cuban traditional bell pattern on this track is typically notated in 12/8. Aguabella played with one hand and one stick, which is very African and the way certain people play *bembé*. Lead vocalist Mercedes Hernandez sang a chant in praise of *Oya*, the orisha associated with wind, lightning, and storms.

"Conga Pa Gozar"

"Conga Pa Gozar" ("Conga to Enjoy") represents the drumming style played for Cuban *carnaval*. The percussion instruments layer in, with snare drum and bass drum starting, followed by bell with supporting conga, and finally the lead conga. The liner notes for the original album reference the "1, 2, 3, kick" of the conga-line dance, which became popular in the United States

because of the influence of Desi Arnaz and others who featured it in Hollywood movies. You can hear the "1, 2, 3, kick" on the bass drum, which is specific to the Havana style of playing conga: feather the "1, 2, 3" and accent the "kick." Towards the end, the bass drum part is improvised and not static.

Cuba had *cabildos* that were religious or social clubs of freed and enslaved Africans, often organized around ethnicity (Yoruba, Arará, *Carabalí*, etc.). For *carnaval*, the Spaniards would allow the *cabildos* to go out in the street, wear their costumes, and play their music. The *comparsas* (groups of singers, musicians, and dancers who take part in *carnaval*) came out of these *cabildos*.

The instrumentation and the rhythms vary from city to city and sometimes even from neighborhood to neighborhood. In Cuba, the *comparsas* have a call-and-response between a brass instrument (such as a trumpet) and a choir. In Santiago, they play a double-reed instrument called the *trompeta China* (Chinese trumpet). This track consists of only a few percussionists, so the full effect of a *comparsa* at *carnaval* is not realized because they are missing percussion parts, the trumpet, and the choir. Aguabella was famous for his electrifying *quinto* drumming in *carnaval comparsas*.

"Mi Guaguanco"

The track "Mi Guaguanco" is rumba *guaguancó* with call-and-response vocals and strong cajón accompaniment. Listen for the characteristic cáscara and conga "melody." The instrumentation is two conga drums and a cajón (not three congas). Go to 1:10 and follow along until 1:30. Whoever is playing the middle drum stops for a second and reenters on the other side of the clave. From a musical standpoint, it is interesting that they put the two open tones of the *segundo* pattern on one side to start, and halfway through, move it to the other side. The lyrics of this song are particularly profound when you think of the painful brutality of Cuban slavery:

Spanish

Silencio. Silencio. Oído silencio.
Nunca diga que el dolor te mata.
Jamás reniegues de tu suerte
Recuerda que los hombres en esta vida
Tenemos que ser fuertes
hasta en la adversidad.

English

Silence. Silence. Listen. Silence.
Never say that sorrow will kill you.
Never ever grumble about your luck.
Remember that men in this life
We have to be strong
even through adversity.

"Colúmbia"

The instrumental "Colúmbia" includes prominent cáscara and segunda patterns associated with rumba *guaguancó*. The middle drum pattern is an old school placement of going *with* the clave, not against it. The lead was played on a quinto (not on a cajón). The meter is not 12/8 but it is not completely 4/4. This is an example of the way Cubans play with a certain "swing."

***Yambu* Summary**

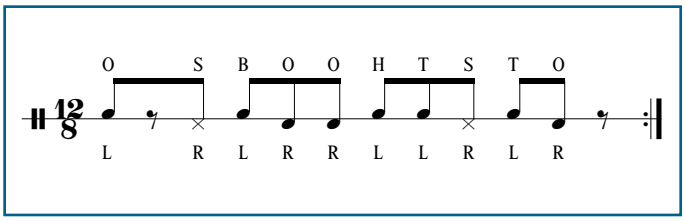
In the ten tracks originally found on the *Yambu* album, there are five rumbas, two *bembés*, the Bricamo piece, one selection representing the conga genre, and one *makuta*-like composition called "Congobel."

MONGO

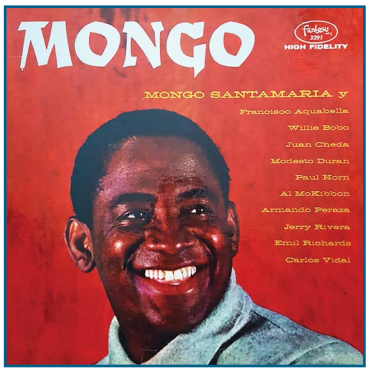
"Afro Blue"

"Afro Blue" was a groundbreaking composition, as it was the first jazz standard built on an African 3:2 polyrhythm in 12/8. "Afro Blue" became Mongo's biggest hit. "Afro Blue" was the first track on the *Mongo* album, which began with Mongo on congas. The rhythm in Figure 4 is an interpretation transcribed by Alex Pertout.[9]

Figure 4: "Afro Blue" Conga Pattern
O = open; S = slap; B = bass; H = "heel" (palm); T = "tip" (fingers); R = right; L = left



Mongo created patterns by combining *Abakuá* and *bembé* parts traditionally played by multiple drummers. Mongo kept playing at the end and Aguabella took the solo, which is in the *Abakuá* style, quoting specific phrases from the lead drum called the *bonkó enchimiyá*. *Abakuá* is the male-only society in Cuba. In older literature, the *Abakuá* were referred to as *Ñañigo*, but that is a pejorative term; the terms should not be used interchangeably.



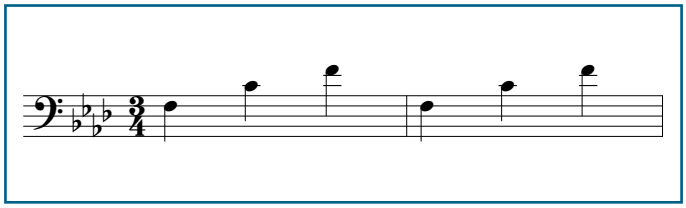
Mongo recounted the inception of "Afro Blue": "I don't know how to write music…but when you get the feeling for a composition, it happens. Sometimes the drum speaks to me. While I was working with Cal Tjader, I started hearing a melody in one of the

rhythms I was experimenting with, so I went to the piano player [Lonnie Hewitt] and sang him the notes, so he could write them down."[10]

The earliest recording of "Afro Blue" was by the Cal Tjader Sextet on April 20, 1959, at the Sunset Auditorium in Carmel, California. The *Concert by the Sea* album captured a live performance of what was called a Monterey Jazz Festival "Preview." The band included Tjader (vibraphone), Paul Horn (alto saxophone and flute), Lonnie Hewitt (piano), Al McKibbon (bass), Willie Bobo (percussion), and Mongo Santamaria (congas). Tjader played an Afro-Cuban traditional cowbell rhythm during the flute, piano, and conga solos when he was not on the vibraphone.

When Mongo recorded "Afro Blue" for the *Mongo* album the next month, he included Paul Horn, Al McKibbon, and Willie Bobo from the Cal Tjader Sextet. However, he left out the piano, replaced Tjader with Emil Richards on marimba, and added Aguabella on conga. Dee Dee Bridgewater, Dianne Reeves, and others recorded vocal versions of the song after Oscar Brown added lyrics. John Coltrane recorded the piece in 1963 with Elvin Jones on drums, but with a 2:3 jazz-waltz meter. The *Real Book* sheet music for "Afro Blue" is notated with a 3/4 time signature. Al McKibbon's bass line is very waltz-like. (see Figure 5).

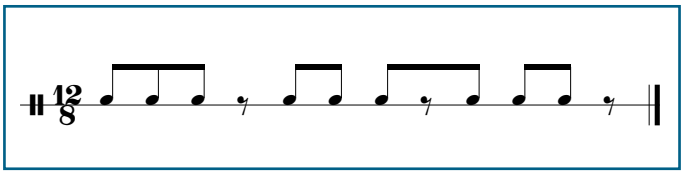
Figure 5: "Afro Blue" bass line



Discussion of the meter of this composition directly relates to the "It's not a waltz!" chapter in Michael Spiro's *Conga Drummer's Guidebook:* "Afro-centric music is almost never a waltz (i.e., written and felt in 3/4 time). All of this music, if it is in any kind of a triplet feel, is in 12/8. The dance steps that accompany these musics are danced four steps to the bar, and we must always remember that the purpose of the music we are studying is to accompany dance, not purely for listening enjoyment."[11]

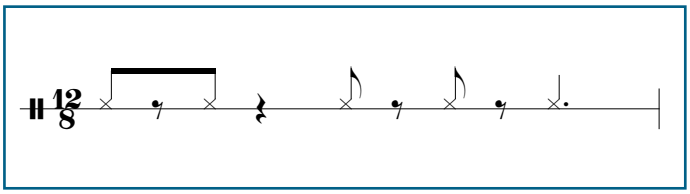
Willie Bobo's brush rhythm on a snare drum is easy to hear as being in 3/4, but when it is written in 12/8, you can see how it fits with the other percussion parts (see Figure 6). That pattern is part of the *Carabalí* tradition, as it is a bell pattern for *bricamo*; however, traditional *bricamo* is played at a much slower tempo than "Afro Blue."

Figure 6. "Afro Blue" brush pattern



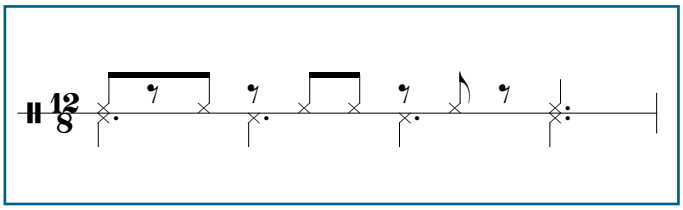
The pattern in Figure 6 (or its permutation) is sometimes played as a bell rhythm or as a fill when the 12/8 clave pattern serves as the foundational rhythm in *Abakuá* (see Figure 7).

Figure 7. Afro-Cuban 12/8 (3:2) Clave



You can hear the 12/8 meter when Emil Richards plays a repeated motif on the marimba during the four bars before the head starts (see Figure 8). Emil's pattern announces, "Surprise, we're in 12/8!" when he plays the bell pattern (omitting the last hit of the pattern, which would be on count 12) with his right hand and the dotted-quarter downbeats in his left hand. This motif unifies the composition as an interlude played between the A and B sections, before the first solo, and as a coda.

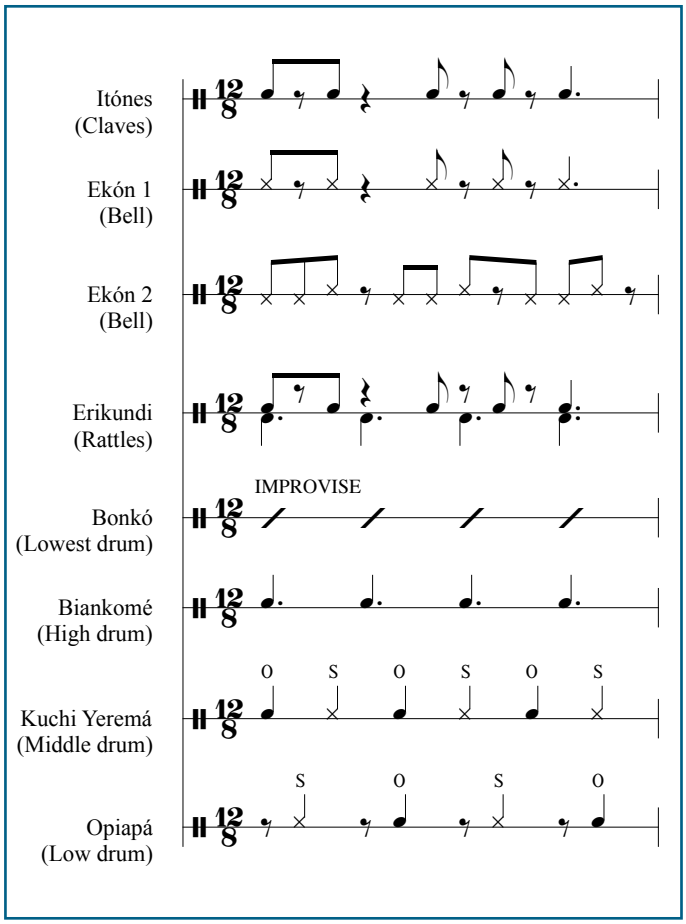
Figure 8: "Afro Blue" interlude



As to the relationship between "Afro Blue" and *Abakuá*, John Santos suggests: "Consider the similarity between Willie Bobo's

brush pattern and the *ekón* 2 bell rhythm, Emil Richard's opening marimba pattern and the *erikundi* rattle part, Al McKibbon's bass line and the *kuchí yeremá* drum rhythm, the supporting conga rhythm Aguabella plays until his solo and the *opiapá* low drum rhythm, and Aguabella's *bonko enchimá* style conga solo on one low-pitched tumbadora.[12] The score in Figure 9 is from Donald Truly's dissertation, where it is titled "Traditional *Abakuá Conjunto*: Havana Style."[13]

Figure 9: Abakuá
O = open; S = slap



A second and equally problematic issue with "Afro Blue" is the bridge, which "crosses" the clave. While the rest of the song is in 3:2 clave, the melody of the bridge is in 2:3 clave. One way to maintain clave integrity in this situation is found in Marty Sheller's arrangement on the 1992 recording titled *Tito Puente's Golden Latin Jazz Allstars: "Live" at The Village Gate.* Two beats are added right before the B section, so the bridge melody is played in 2:3 clave, after which two beats are added again to put the return of the A section back in 3:2 clave.

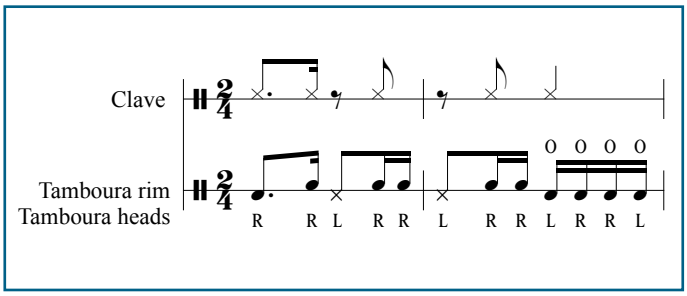
Michael Spiro's 2016 arrangement on the *Canto América* album with the Wayne Wallace Latin Jazz Quintet demonstrated another solution. Here, the rhythm of the melody on the bridge is simply altered to fit in 3:2 clave. Liner notes explained that this version of "Afro Blue (Obatalá)" included batá and bembé macagua drums and singing in the *Lucumí* language "to musically unmask the depth of the African retentions of this historic composition: 'Afro Blue' is deeply embedded in the traditional Afro-Cuban folkloric music. Mongo was of Yoruba descent, and his composition is derived from specific songs and rhythms dedicated to *Obatalá*, the Yoruba orisha of wisdom, justice, and peace."[14]

In terms of American music history, "Afro Blue" is at least as important as the Dizzy Gillespie Cu-bop songs such as "Manteca" and "Night in Tunisia." John Coltrane made "Afro Blue'" part of jazz literature, just as he did with "My Favorite Things." "Afro Blue" is arguably one of the top-ten most important compositions in jazz music history.

"Che-Que-Re-Que-Che-Que"

"Che-Que-Re-Que-Che-Que" is an ABA arrangement of merengue and rumba *guaguancó*. The A section is merengue, the national dance of the Dominican Republic. The beginning and ending of the piece include the signature five-note *tambora* played on conga and timbales, culminating on the downbeat on the "three side" of the clave (see Figure 10).

Figure 10. Tambora Rhythm
R = right hand w/stick; L = left hand; O = open



The tambora is a small two-headed drum, which sits on the lap of the drummer and is played with one bare hand and one stick. The middle B section of the piece is rumba *guaguancó* where you hear the *cáscara* and the improvised lead conga. The two genres were arranged into one composition, but they were not simultaneously fused. There is no *segundo* during the *guaguancó*; they use only the bottom drum (salidor) and the quinto lead drum (not a cajón) this time.

Armando Peraza (the singer and lyricist) tells a black woman that she will enjoy dancing merengue. Born in Cuba, in 1949 Peraza moved to New York, where he played with Machito and Pérez Prado. He was a member of George Shearing's band for 12 years starting in the early 1950s and played in Cal Tjader's band for six years into the 1960s. Starting in 1972, he played with Santana for nearly 20 years.

Typical of rumba guaguancó, the performance includes the call-and-response between the lead singer and the choir. The lyrics are:

Spanish

Eh, merengue. Che que re que che que.
Mi negra, lo bailo.
Ay, mi negra, lo gozo.
Ay, mi negra, lo brinco.
Allá lo verá. Allá lo verá.
Ay, lo gozará. Ay, lo bailará.
Ay, el merenge. Ay, che que re que che que.
Allá lo verá. Ay, lo gozará
Guaguancó. Guaguancó.
Guaguancó. Guaguancó.
Coro mi yare. Eh, mi yare.

Yo soy rumbero. Es la verdad.
Ay, yo bailaré. Ay, yo gozaré.
Ay yo bailaré la rumba.

English

Ah, merengue. Che que re que che que
My black woman, I dance it.
My black woman, I enjoy it.
My black woman, I jump it.
There you will see it.
Ah, you will enjoy it.

(stock phrase; meaning unknown)
I am a rumbero. That is the truth.
Ah, I will dance it. Ah, I will enjoy it.
Ah, I will dance the rumba

"Rezo"

In "Rezo," the flute and marimba play a slow melody together for the first half and then dialogue back and forth for the second half of this instrumental composition. *Rezo* is Spanish for "prayer." *Rezos* are very important in Afro-Cuban religious music. They can be sung without drums, over a drum roll, or while the drums are playing in time. In this track, the conga plays a roll while the sustained shaking of sleighbells contributes to the ceremonial atmosphere.

Someone improvises strongly on a drum that sounds like a batá for the entire piece. Batá are Yoruba drums from Nigeria closely associated with the Santería religion. The hourglass-shaped drums, with heads of two different sizes, are held on the lap of the players, and in Cuba, struck with bare hands. In Nigeria, batá are played with hands or with *bulala* drumsticks made from leather straps. The names of the drums from the largest to smallest are *iyá*, *itótele*, and *okónkolo*.

Speaking in 1984 on the ceremonial history and function of batá in Cuba, Mongo said, "Batá was never used in bands; it was something sacred for the religion. Lately, they've started to use it in other music but, before, it was something exclusive for religion."[15]

Concerning the potential use of batá on the *Mongo* album, John Santos responded: "I can only offer conjecture based on what I hear and what I know about *el Maestro*. Our *padrino* [mentor], Francisco Aguabella, was the only real *batalero* on those *Mongo* recording sessions. Using the batá outside ceremonial context was quite uncommon, and he was a very orthodox, type-A traditionalist. It was innovative and bold to record the batá like that, and his respect for those roots was of the highest order, so Aguabella was basically breaking the 'rules' and was the right guy to do it. It had been done in Cuba a few years earlier, but not in the United States as far as I know. I hear only the *itótele* [middle batá] on 'Rezo.'"[16]

In 1960, Mongo traveled to Cuba with Willie Bobo to record two albums for Fantasy: *Our Man in Havana* and *Bembé*. The *Bembé* album featured the batá battery of the legendary Jesús Pérez (identified on the album by first name only) and was Mongo's last full-length recording of Afro-Cuban folk rhythms.[17]

"Ayenye"

The track "Ayenye," in the Afro-Cuban son montuno style, is in 2:3 son clave and features the characteristic tres (Cuban lute with three sets of doubled strings). The typical tres ostinato is called a *guajeo*. The track featured call-and-response vocals, bongó, congas, and José Gamboa on tres. Normally for the son style, when you have a bongo player, the conga player would play tumbao, but he did not. The *conguero* (not necessarily Mongo because he may be playing bongó) instead played an accompaniment known in other contexts as the *habanera* rhythm. The language of the title and lyrics are neither Yoruba nor Spanish; they may be *Lucumí*. The translation of the repeated line of "Ayenye curuñé" is unknown.

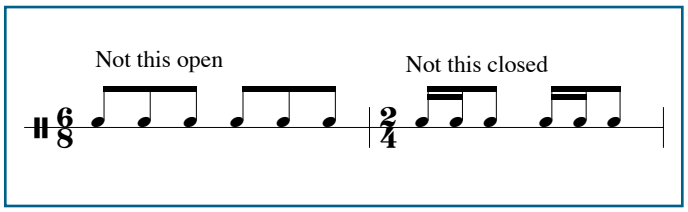
Kristina S. Wirtz emphasized: "*Lucumí* doesn't always lend itself to straightforward translating — like you would do from, say, Yoruba to English. Some of the expressions are formulaic and are less about conveying semantic content and more about calling on and praising an *oricha*. Some expressions are praise names for *orichas* (where the 'original' meanings of those names may or may not be recoverable). Sometimes what is more significant is to ask what the songs do and (certainly) what rhythms and ritual functions they are tied to, rather than what they say. Of course, there's a whole additional layer when these bits and pieces from ritual contexts are repurposed into popular music recordings."[18]

"Onyaye"

The "Onyaye" track has a slow, chant-like beginning with trilling flute melody over a long conga roll. The marimba introduces a call-and-response conversation with the flute. The second half of the track changes to a driving tempo with conga, sleighbells, and added vocal chant. The meter could be notated in 12/8, but the rhythm prominently played on what sounds like a lead conga (with stick) is not exactly duple sixteenths and not

exactly eighth-note triplets (see Figure 11). The meter is neither four (4/4) nor six (6/8) but rather a place in between.

Figure 11: "In the Cracks"



Michael Spiro explained this polymetric concept in his book *The Conga Drummer's Guidebook*: "In Afro-centric musics the rhythmic distinction between three subdivisions per beat and four subdivisions per beat is frequently blurred. I call this 'averaging' of rhythm between a four and a six feel 'fix' (four and six), and it is an essential component of learning to swing in these styles."[19]

An essential element of jazz, New Orleans second-line, and Afro-Cuban music is swing. Stylistic interpretation is required to play with the appropriate feel.

"Batá"

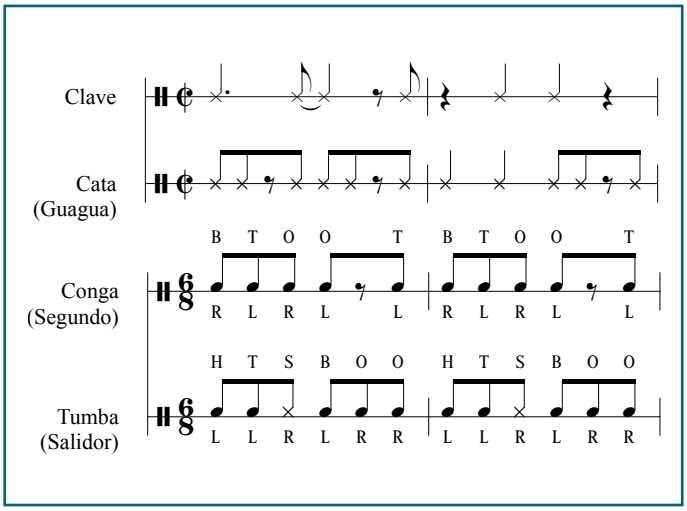
The "Batá" track sounds like Aguabella and another drummer on batá with sleighbells ringing throughout. When sacred batá are played, bells are put around both sides of the lead drum. On this track, the use of sleighbells was their way of including that part of the drum sound in the recording.

John Santos shared his perspective on the instrumentation for this track: "I hear three drums on the 'Batá' track. The *okónkolo* and *itótele* for sure. The third drum sounds like a *tumbadora* at first, then sounds more like possibly an *Iyá* later in the track. The first rhythm is an adaptation of the *salida* for *Eleguá* (orisha of the crossroads). Then it morphs into what sounds like an adaptation of the *aro* for *Yemayá* (orisha of motherhood and the sea). In any event, the low range of the third drum is hardly audible. I would guess that Francisco intentionally left the guts of the *Iyá* part out to further delineate between secular and sacred. The album is otherwise so awesome in its sound reproduction, I can't imagine it's a mistake, oversight, or coincidence. You can bet that the drums used were *aberikulá* (non-sacred). I'd bet the farm that Francisco played the *itótele* that opens the track and assigned the okónkolo to Mongo, Modesto, Willie, or Carlos. But that brings up the question of who played the third drum. It could very well be one of the other drummers present. That might explain why it is not a traditional batá approach on that drum, in particular. But maybe it's an early overdub experiment, in which case it could have been Francisco himself improvising. That might explain why it sounds quite different from the other two drums. It seems obvious to me that Francisco was the real director of the percussion ensembles on both records (*Yambú* and *Mongo* from the *Afro Roots* compilation) despite Mongo being the (main) artist and leader. He did the same on some previous Tito Puente recordings."[20]

"Meta Rumba"

"Meta Rumba" is in rumba *colúmbia* style (see Figure 12). The *palitos* (sticks on shell) provide a driving rhythm on top of which the *conguero* (Mongo or Peraza) plays a wonderful solo. The support drums appear to be in six, but the stick pattern is duple. The solo drum is very duple and more within the *palitos* pattern than inside of the support-drum triplet patterns.

Figure 12: (3:2) Rumba Colúmbia
O = open; S = slap; B = bass; H = "heel" (palm); T = "tip" (fingers); R = right; L = left



The vocalist says that the *rumba* is calling the rumbero and friends to enjoy and dance to the beat of the drum:

Spanish

Rumba, rumbero. Rumba, rumbero.

La Rumba te está llamando.
Rumbero, ven. Ven. (couplet repeated)

Canta tu baila. Te gozas. Te diviértes.
Ay, compadre, mi tambor. (Couplet repeated)

Oye, oye, oye, oye, oye, oye.
Oye mi tambor. Oye mi tambor. (etc.)

English

The rumba is calling you.
Rumbero, come. Come!

Sing your dance. Enjoy yourself.
Oh, friend, my drum.

Listen.
Listen to my drum

"Chano Pozo"

The track "Chano Pozo" is a fast rumba *guaguancó*. The *cáscara* and the characteristic conga "melody" are played between the tumba and conga. The lyrics on this track say farewell to Chano Pozo and reference a litany of his most famous compositions: "Manteca," "Guachi Guara," "Blen Blen Blen," and "Tin Tin Deo." The song has a fade out ending, perhaps because the percussion jam session had no definitive end, but maybe as a poignant nod to Chano, whose influence and reputation persists to the present day. The middle drum pattern, the *segundo*, is "crossed" according to the way we play *guaguancó* today. This inconsistency has historically caused great conflict, since it used to be played in one place, but later it flipped to the other side.

"Los Conguitos"

"Los Conguitos" consists of flute melody, marimba accompaniment, string bass, *cáscara* ostinato, and conga groove. The title may mean "people from the Congo" (literally "little Congos"), but could be referencing ethnic groups (e.g., Bembenga, Bayaka, Bakola, Bongo, Bambuti, and Batwa) native to the Congo Basin of Central Africa, and historically referred to as pygmies, a term no longer considered respectful.

Regarding the composition's style, this piece is unique. It resembles the Bantu rhythm called *makuta*.

"Monte Adentro"

"Monte Adentro" is Cuban *son*, a genre of music and dance that originated during the late 19th century. The style first appeared in Cuba's Oriente (East) Province, particularly in the mountainous regions. The title and the recurring hook sung by the choir ("*a monte adentro*") translates as "deep in the mountains" where there is a dance party occurring. The middle section of the song features the *tres*, characteristic of the *son* style. The bongó, congas, claves (2:3), and cowbell are all rooted in the African tradition. The final section of the piece highlights a bongó solo during which the lead singer and choir chant call-and-response phrases such as "sound (play) your bongo" (*suena tu bongó*).

"Imaribayo"

The "Imaribayo" track begins with a conga vamp that continues throughout the piece. A conga is played as a lead drum, providing sparse cross rhythms and syncopations as interjections to the *Lucumí* call-and-response of the lead singer and choir. John Santos commented on the potential use of *batá* on this track: "I do hear the batá. Perhaps just the *itótele* combined with a conga and lead tumba with stick."[21] The repetitious chant includes phrases such as "*Imaribayo yo yo mayo kelen kelen ya*." Translation of this phrase is unknown.

"Mazacote"

The final track on this album is a *descarga*, or jam session, titled "Mazacote," recorded live at the Blackhawk nightclub in San Francisco. Mongo starts with a conga solo interacting with Willie Bobo on timbales. The drumming vacillates between straight tumbao patterns, 6/8 rhythms, and double-time passages. Mongo eventually switches to bongó, displaying an exciting soloing style as he jams first over the montuno of the piano and at the end, the string bass *tumbao*. The track is reminiscent of "Ti-Mon-Bo" from Tito's 1958 *Top Percussion* recording, which featured solos by Tito (Ti), Mongo (Mon), and Willie Bobo (Bo).

Summary

The 12 tracks on the *Mongo* album consist of three rumbas (one arranged with a merengue), two sones, a *bembé*, a *descarga*, and five additional tracks that are beyond the limitations of the author to classify into specific genres. Mongo played congas on many albums, including 44 as a leader, ten with Tito Puente, seven with Cal Tjader, and eight with the Fania All-Stars. He made a tremendous contribution to the development of Latin-jazz as well as to the integration of Afro-Cuban percussion grooves and R&B styles for Latin-soul dance hits, such as his boogaloo cover of Herbie Hancock's "Watermelon Man." As for the 22 tracks on *Afro Roots*, they are a manifestation of the African Sankofa ("return and take") proverb, through which Mongo paid tribute to his ancestors and opened pathways for generations of percussionists to understand the African roots of Latin jazz.

Michael Spiro reflected: "I get emotional when I hear these records. They were critical for people who wanted to learn Afro-Cuban drumming because they became our study guide, our bible. Without these records, we would know nothing. You couldn't go to Cuba to study because of the U.S. blockade of the island. Mongo was the one who got the contract and recorded Cuban folkloric music in the United States and nobody else did. Because of the quality of the music and because there was nothing else, this two-record set became incredibly iconic in their importance. I don't know why Fantasy made these records for us in America, but thank God they did, because they were our window to an entire world of Cuban percussion."[22]

ACKNOWLEDGEMENTS

Thanks to Michael Spiro for his time and insights. This article would not have happened without his help. Appreciation to John Santos for sharing his perspective and meticulous attention to detail. Gratitude to Laura Damm for her Spanish transcriptions and translations.

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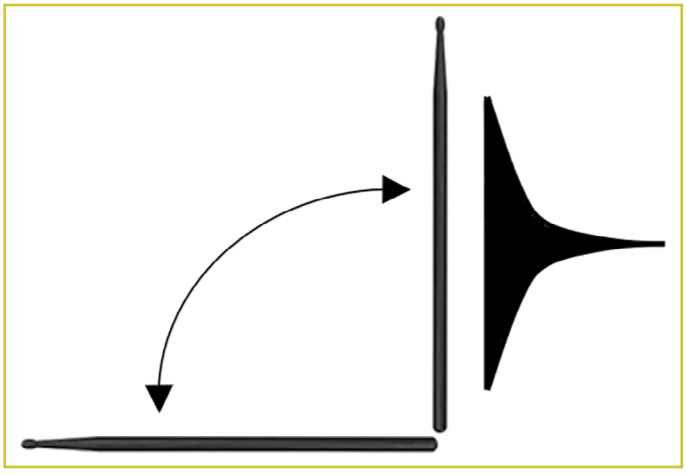
The Buzz Roll: Two Points of Pressure and Overlap

By James Vilseck

Pressure strokes are a core skill-set for playing snare drum. A pressure stroke is any stroke using a slight pinch in the fulcrum to produce two or more notes in a single stroke. A buzz stroke is the most basic application of pressure stroke, though double and triple strokes are also included. While pressure is utilized to control tone color on other instruments, it is rarely used to create a multitude of notes per hand outside of non-pitched membranophones.

There are a few universal truths when it comes to performing pressure strokes. For starters, the primary motion comes from the forearm instead of the wrist. In the case of buzz strokes, the wrist should be locked. While this is contrary to normal playing technique, using the wrist in buzz strokes creates a heavy attack that tapers off quickly since the stick changes angles as it approaches the drum. An arm motion, however, keeps the stick moving more parallel to the playing surface. The front and butt of the stick move simultaneously, like an elevator, creating a softer, weightier start of the note that sustains for longer.

Wrist Motion



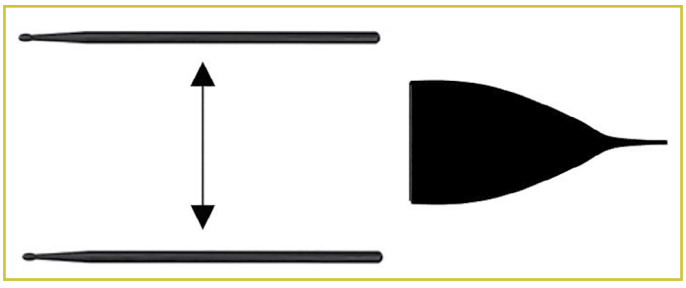
TWO POINTS OF PRESSURE

Another truth related to pressure strokes is to practice by first isolating each hand individually. When asked to describe their process, students often mention fulcrum pressure. Whereas the stick is normally held with a light, equal pressure throughout the entire hand, pressure strokes require a firm, but slight pressure between the thumb and index finger, sometimes also incorporating the middle finger. Often, students overcompensate, squeezing too much and choking off the sound and length of a buzz stroke. Keeping the pressure in the fulcrum as light as necessary will create a warmer sound, using less pressure with softer dynamics, and vice versa.

While fulcrum pressure is a fundamental element of the process, there is a second pressure point students must manage, but rarely consider. This second point involves pressure into the drumhead, or the approach and touch onto the drumhead itself. A normal, relaxed legato stroke should bounce off the head, allowing the wrist to work by throwing it down, like a basketball dribble. In contrast, a pressure stroke pushes into the head where it will rebound in fast succession, as if you push a basketball to the floor. Like the fulcrum, this point of pressure is often overused, resulting in a short, dead buzz. As a general rule, a lighter touch should be used for open and softer buzzes while louder and closed rolls should be heavier.

An important consideration with this second point is a grad-

Arm Motion

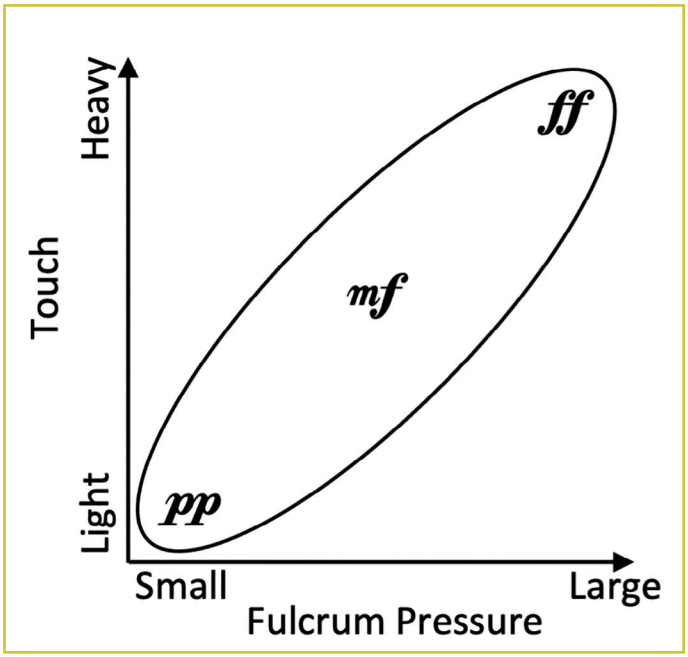


ual increase in pressure during the stroke to lengthen the buzz roll. A common error is pushing the stick into the head too much, creating a dead stroke. Another error, in the opposite direction, is immediately releasing any pressure on the head once the stick makes contact, removing any support for the buzz sound. I find most students lean towards the former issue.

To learn about a gradual increase in touch, start isolating buzz strokes with an open bounce and a light touch while keeping the stick connected to the drumhead. From there, slowly increase touch throughout the buzz. This slow increase in pressure should extend the length of the buzz. This approach is also similar to pressing a ping-pong ball into a table, which conveniently produces a satisfying buzz with a gradual increase in pressure.

Both touch and fulcrum pressure are necessary in the creation of a buzz. Experiment by isolating each element. Taking only fulcrum pressure into consideration, the stick would never touch the head. With zero fulcrum pressure, the stick would fall out of the hand. An understanding of the duality of touch and fulcrum pressure will allow performers to better control their buzz roll sound at various dynamics. While both elements affect the length of a buzz, general roles for each element can be established. The fulcrum pressure will determine how open or closed the individual stroke can be while the touch will determine the length of the buzz.

Fulcrum Pressure



The relationship between touch and fulcrum pressure are demonstrated in a Cartesian graph below. Within the circle is a recommended range for balancing touch and fulcrum pressure to create a smoothly connected buzz roll. The area bottom-right of the circle will create a tighter sounding roll, while the area to the top-left will sound more open. Ideally, a performer should develop full control of the entire range of the graph.

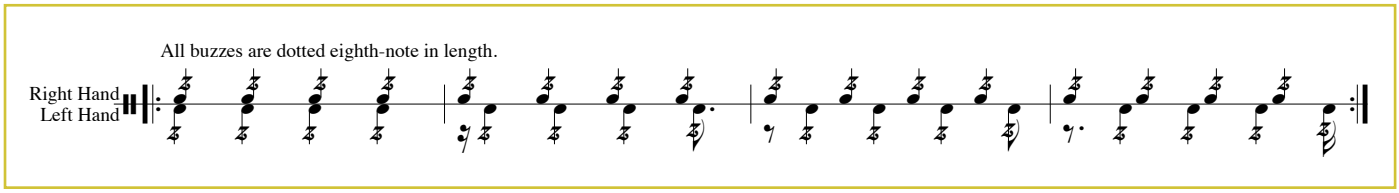
OVERLAPPING PRESSURE STROKES

Once individual buzz strokes have been mastered, students learn to put the hands together to start producing a buzz roll. A typical process involves starting slowly, alternating hands, and gradually speeding up until the buzzes begin touching. Ideally, the hands would continue to speed up while the buzzes remain connected. Starting around a medium hand speed, students tend to lift up one stick the instant the other stick hits the drum. This dramatically shortens the length of each individual buzz and leads to a series of gaps in the sound of the roll. It has little to do with the quality of the individual buzz stroke and relates more to a lack of control with overlapping buzz strokes.

Some exercises can be used to increase awareness of this issue. The first is called the "one-handed buzz roll." The idea is to create the smoothest buzz roll possible using only the right or the left hand. Clearly, a smooth roll is not possible, so the challenge is to get as close as possible. Many students who attempt this opt for a short buzz with a fast hand speed. This leads to many breaks in the sound. A different approach is to get as long of a buzz as possible and minimize the space between strokes. The most important element is minimizing the space between individual buzz strokes. A longer buzz with slower hand speed provides the best opportunity to have as little separation in the sound as possible. As such, this exercise also shows that the best buzz rolls occur when the sticks stay in contact with the head as long as possible. A goal for clean buzz rolls is to minimize the space between the buzz strokes on each hand and try to have both sticks in contact with the head as long as possible.

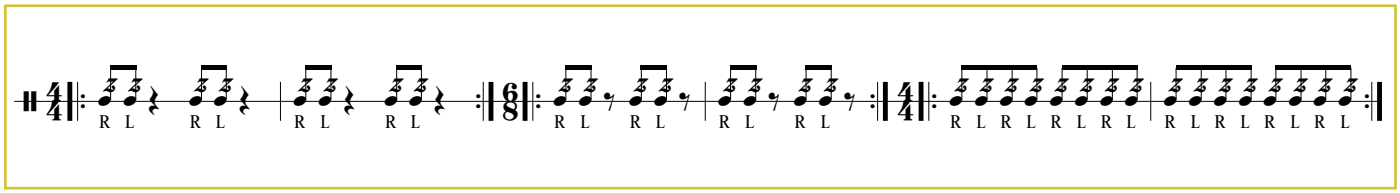
In terms of exercises, I like to use a grid to promote overlapping pressure strokes. One hand remains constant while the other hand moves around in a sixteenth-note pattern, each playing a buzz stroke that lasts a dotted-eighth-note in length. Each individual measure can be repeated as many times as desired. This exercise covers unison playing, alternation, as well as right- and left-hand lead (see Exercise 1).

Exercise 1



A similar exercise uses simple eighth figures to work on overlap. All buzz notes in this exercise should be as long as possible and each bar can be repeated as many times as desired. The eighth note in the final two bars will have a similar feel to playing flam taps (see Exercise 2).

Exercise 2



The idea of two points of pressure alongside a focus on overlap will augment students' typical preparation of buzz and pressure strokes. The idea of two points of pressure can similarly be applied to double- and triple-stroke ideas, helping to develop rudiments and ornaments.

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On Marimba, Looking Back

By Keiko Abe

Editor's note: This article is a combination of several articles written by Ms. Keiko Abe over the course of many years. Some were written for performances at PASIC. There is no doubt that Abe was the nascence of the sensibility toward the marimba as well as the driver of the technique on the instrument as we know it today. This article should be read with a sense of history with the realization that many of the points made and observations recognized were made as early as the late 1960s when she first made her debut album of Japanese marimba music. I will never forget her visits to Oberlin in 1977 when she introduced composers Minoru Miki and Maki Ishi to America during her first tour of the U.S. There is no question that all of us who play marimba in whatever capacity owe Ms. Abe a debt of gratitude for her innovations, her artistry, her technical ability, her foresight, and her perseverance to make the marimba an accepted member of the musical community that it is today. And of course, one cannot overlook her superb musicianship that has influenced us all. —Michael Rosen

Every musician chooses an instrument on the basis of how well it expresses their personality and musical impulse. For me, the instrument that best serves this purpose is the marimba.

Over the years I have experienced great satisfaction in discovering new possibilities for marimba, but this joy has been accompanied by certain disappointments. In particular, the fact that the marimba was not generally recognized as a serious instrument proved to be an obstacle to the realization of its full potential. Because of this, I have spent a great deal of time and energy actively promoting the instrument in an attempt to elevate its standing in the musical world and to foster a deeper understanding of its possibilities.

At the time when I became aware of my identity as a marimba performer, feeling that this was the only instrument which would enable me to give full expression to my own musical personality, people generally either had no knowledge of the instrument or felt that it belonged in the sphere of popular music. It is certainly true that the marimba, an instrument with its origins in folk music, shows itself to full advantage in genres such as folk music, Latin-American music, and jazz. However, the music I wished to perform was of a completely different nature. I wanted to confront the marimba directly and give convincing performances on the instrument in a solo capacity, not using it as a single voice in a percussion ensemble setting, but as a solo instrument rather in the manner of the piano.

There were very few works for solo marimba in the classical repertoire in the mid-1960s. So, I had to begin my career as a performer by creating the works myself. This was the point at which I began my relationship with composers. I began by trying to discover the characteristics of the marimba that enable the instrument to show its best, and fullest capacity, including, for example, techniques used to effect in folk music; techniques for creating a sensation of the marimba's large dynamic range through the placing of chords, and by demonstrating features, unique to the marimba, through adding one extra note, which might otherwise have been regarded as superfluous.

It is interesting to note that many of these discoveries were made during practice sessions after I had finished working on composed pieces and was doodling around in an improvisatory manner on the musical score. My means of expression thus expanded and became freer as the days went by. In some cases, composers would write pieces using the instrument freely, and without any pre-

conceptions, and, in other cases, problems concerning blending with other instruments would make it necessary to hold technical discussions and work together with composers to discover new methods which would be convincing to them by playing a motif over and over again in different ways. A large number of compositions came into existence in this manner. In the future, works of high quality may well only come about through this joint creativity, combining the internal energy of both composers and performers. In addition, new works by marimba performers with compositional ability and a highly developed sensibility may well become prominent.

The marimba is now a natural extension of myself, and I find that I can express myself freely with it, but this has not always been the case. For me, marimba is an absolutely necessary instrument for expressing and speaking my mind. On stage, marimba exists only for the purpose of speaking music.

When I was in high school, there was a gap between me and the instrument, which prevented me from full realizing my full expression. I found myself wondering about technique and wondering what method of study would help me close this gap. At the root of this uncertainty was a basic doubt of the marimba's ability to compete with the violin or piano as an independent and self-sufficient solo instrument. In trying to remove these doubts, I found it necessary to experiment with the instrument, to find its special characterizations, and to learn its limitations. It was also apparent that no progress could be made until I had acquired a musicality that was based on wide experience, and that this experience must not be confined to music but must encompass other fields as well.

I began by analyzing pieces written for other instruments, including works for flute, violin, and piano. By studying the masterpieces left to us by the genius of previous generations, I came to appreciate the depth of the Western musical tradition. I then began the work of transferring this depth of expression to the marimba and experimented with different methods of musical arrangement. Through this activity, I discovered many new modes of expression and, at the same time, came to realize the inherent limitations of the instrument.

COMPOSING AND ARRANGING

When I compose, I improvise and write at the mercy of my sensibility, which leads to my feeling. There is not much awareness as composer in myself. There are two facets to my musical expression. Curious to say, when I feel lonely and isolated, I am healed by nature, and a melody comes to my mind for composing. This is one case. Another case is that I am inspired by human emotion of the melody of folk songs. I have tried many different approaches to marimba in order for marimba to be recognized as an independent instrument. The approach to music by performers must be logical and have a higher level of existence in order to have written high-quality music which grabs the hearts of the audience. I hope that the performer is a person of integrity, because human nature comes out to play.

To give a concrete example, suppose you have a violin melody that you want to arrange for marimba. Several questions present themselves, such as the following: (1) Should you use the entire arm when playing single notes and rolls, or (2) Should you just use the wrist? (3) Should you play in octaves? (4) Would a chorale arrangement be appropriate? For myself, I found that a chorale arrangement is effective with piano accompaniment, and that octaves or closely voiced chord are best with an orchestral accompaniment.

The important thing is that these conclusions were reached by a system of trial and experimentation. From flute pieces I learned the relationship between breathing and phrase structure. It is a mistake to think that because the marimba is played with mallets that it does not require a consciousness of breath control. If this aspect of breath control is ignored, the notes lack

connection and the sense of line is lost. From piano pieces I learned all the elements that make up a piece of music, including harmony, melody, and rhythm. In addition, these pieces afforded me the chance to learn the arts of both composition and arrangement.

In this way, learning music piece by piece, while at the same time, making arrangements of them for the marimba, I came to develop naturally the technique necessary to make precise musical expression possible. Each technical advance was achieved in response to the specific demands made by the music I was working with. This is an important point to remember. *I did not work through technique towards the music, but rather through the music towards technique.* The discovery of new technical adaptations continues to be a source of great enjoyment to me.

I also work with my students on the art of arrangement. I like to think of arrangements as clothes that each person chooses and wears in a personal way. Each person has his or her own likes and dislikes, and a person's arrangement should reflect these preferences. However, certain things can be taught in connection with arranging music, and some practices are clearly more effective than others. Students can learn the basics of composition, counterpoint, and harmony at school, but what about problems related specifically to the marimba? For example, what is the effect of playing two parts at the third interval as opposed to the fifth or sixth? To encourage students to make their own judgments in this regard, I play along at various set intervals so that they can hear how each actually sounds. Such a practice has the additional benefits of training the students' ears for ensemble playing, and of affording the opportunity to discover their own preferences.

APPROPRIATE MUSIC

To return to my high school days, another question confronting me was: what kind of music is appropriate to the marimba? In the classical tradition, the music of the Renaissance and Baroque periods, up to and including Bach, plus a certain number of pieces by Mozart, are easily adapted to the instrument. In addition, music written from the time of Debussy and Ravel onward is also suitable. I found that the music of the Romantic period, with its emphasis on the violin and piano, and its ideal of high romanticism as revealed in the art song, did not lend itself readily to adaptation. Recently, however, I have become interested in making new arrangements of pieces from this period; such activity might almost be termed re-composition since it changes somewhat the essential nature of the originals.

In the popular tradition, I found that Latin-American music and jazz are both perfectly suited to the marimba, and that the marimba can, without question, bring to life the best of both these genres. In the 1960s, tapes of some of America's top musicians reached Japan, and I earnestly set about learning from them through imitation. In this way I became familiar with the music of such people as Lionel Hampton, Red Norvo, Milt Jackson, and Harry Breuer, as well as the works of George Hamilton Green and other ragtime composers. This music afforded me the opportunity to try out new technical possibilities. I found that different timbres were produced depending upon whether I used my whole arm or just my wrist, and that these timbres needed to be matched to the ensemble in question. Thus, my playing technique varied depending upon whether I was playing with a brass section, a bass, drums, a keyboard ensemble, or with strings. I learned a great deal from American music of this era, which has been a rich and rewarding influence.

After I entered college, I began to find work as an extra in the percussion sections of various professional orchestras. This working experience gave me the opportunity to meet some of Japan's most prominent composers and to play their works, which I found sympathetic to my own spirit, and which filled me with a feeling of complete satisfaction. It was at this time that I decided to try to expand the repertory of pieces written particularly for the marimba and to enlist for this purpose the cooperation of contemporary composers. This activity continues to this day.

IMPROVISATION

I occasionally receive unsolicited compositions for marimba from composers, and I am asked to improvise for hours on end by other composers who are fascinated by the relationship between fundamental and overtones produced by a forceful striking of the bar. These composers have found that the marimba can produce, particularly in its lower range, a sound beyond their previous experience, and have been inspired to write for the instrument as a result of their direct contact with the energy produced during a live performance.

My next concern was how to make my own performance as rich and varied as possible with a musical concentration. When I was a teenager, I had often experienced a tremendous spiritual pressure in pre-concert situations that prevented me from achieving full expression during the actual performance. The question that needed answering was the following: what can I do to ensure one-hundred percent concentration during performance, and to achieve a creative space in my playing that transcends mere technique? In my case, the answer to that question did not come until I began to improvise both alone and in ensemble. In improvisation, one works with a presentiment of the sounds about to be created and places each phrase in relation to an intuitive and sensual conception of the musical structure. In order for this to be successful, the performer must concentrate on each note as it comes and must make each note count. As a result of working with improvisation I found that my playing was freed from the restrictiveness that had, on occasion, hampered me before.

Because I personally found improvisation to be helpful, I have incorporated it as a regular exercise in the lessons I give my students. First, I have the students memorize the piece exactly as written. If, after adequate practice, the music still lacks the appropriate depth of expression, and the students seem shackled by the written notes, we proceed to the next stage. In this stage, I expand the elements of the original piece and improvise on it, while the students play it. If I can get the students to respond to my improvisation in such a way that they can begin to freely develop the written music on their own, I consider the exercise a success. Once this is accomplished, I have the students return to the original piece and play it as written. As a result of the improvisation, the students are often able to draw on their own sources of musical energy instead of being intimidated by the printed score and can therefore render a much more satisfactory performance of the piece.

THE NATURE OF THE MARIMBA

I feel that preconceptions towards the marimba are beginning at last to crumble away. In the sense that the instrument must be struck in order to produce a sound, the marimba is indeed a percussion instrument, but it also possesses fixed pitches and a unique sound spectrum of its own. The performer and composer are free to focus upon rhythm, harmony, or melody. I am aware of the marimba as being closer to the piano. Although there may be some people who dislike the instrument precisely on account of its individualistic tone quality, it is the full display of the marimba's sonic world which enables the creation of music that would be inconceivable on any other instrument. If the performer is a true musician, he or she should be able to give a moving and convincing recital on just one single marimba.

From the distant past, people have been both comforted and excited by the sound of wood as typified by the marimba. Recently, I found a special beauty and richness in the lower range of the marimba, and therefore have had a bass extension made for my instrument. The bass notes have a certain sustaining capacity and increase the range and depth of musical expression. I have developed many activities including the innovation of the instrument, believing that marimba has a breakthrough to convey the essence of classical music. I have kept hoping for a long time that marimba would be recognized and get an evaluation as an instrument like piano or strings, which can convey the music directly to the audience beyond recognition as a folk instrument. I started commissioning composers, premiered contemporary marimba music, composed pieces which took advantage of the features of folk music, or arranged the pieces which were composed for other instruments such as violin, flute, guitar, etc.

ART AND BUSINESS

I have worked with passion to train marimbists widely recognized as artists. I found some students blessed with true musicality. Unfortunately, such pure students or those who have no network tend to stop playing marimba in such situations that their ability in business takes priority over everything. I always encourage and speak to the students that if they really love music and thrive on marimba, the successful way will be opened if they continue playing marimba for 10 years with a side job without being sidetracked by the environment of the business aspect of music.

GRIPS

I would like to briefly touch on the subject of grips. It seems to me that players must each decide for themselves what grip is best for them. The Musser grip, the Burton grip, the Stevens grip, or the more traditional cross grip that I use all have points to recommend them. For pieces which are primarily contrapuntal, the Musser grip is convenient, while a melody emphasized against a harmonic background can be more easily rendered with the Burton grip. I can turn everything in my heart into music with the grip I am using now, so I am using it in a natural way without any discomfort.

MALLETS

The choice of mallets is an expression of the performer's sensibility to the music. If you make the wrong choice of mallets, you will give your audience a completely different impression of the piece. Therefore, the choice of mallets is an important factor for the marimbist and comes with the responsibility of conveying the music of the piece correctly.

If you play with hard mallets in the range of one octave up from the lowest C on the 5-octave marimba, the overtones will be emphasized and the bass note will be difficult to recognize. (With rare exceptions, some pieces are composed with this effect in mind.) To achieve the full effect of the lower register musically, it is not just a matter of choosing soft mallets, but also the weight of the mallets. Soft and weighty mallets will keep the bars vibrating sufficiently to give the impression of the correct pitch. In the higher registers, harder mallets should be selected so that the melody can be heard clearly. In the middle register, medium to slightly harder mallets should be selected depending on the musical demands of the piece. By using the extra soft and heavy mallets in the lowest notes, the melody and chords sound richer and wider, and the melody is heard more clearly.

I continued to develop the marimba because of my own musical demand for a rich and deep sound in the lower register. When I developed the heavy mallets for my ideal instrument, I felt pain in my fingers that had to support the weight of the mallets, and I became impatient because I could not play fast passages as I wanted. However, as I continued to practice to meet my musical needs, this problem cleared up quite naturally. Now I am seriously considering the choice of mallets from lower to higher registers in order to express richer music. Even when playing the same piece, my choice of mallets may

change because my sensibility is always changing. The most important thing for me is to choose mallets that will express the music that my heart desires at that moment.

QUALITY WORKS NEEDED

Now, at the present time, what is needed are superior works; works of high quality, unrestricted by genre classifications, and superior performers. There is also the possibility that the marimba, an instrument of primitive construction, may be technologically improved in the future to give birth to even new possibilities. I believe that the marimba is an instrument which, unhampered by tradition, is filled with, as yet, unforeseen musical potential. During the 21st century, the marimba will no doubt prove indispensable in the creation of new music as a solo instrument and an ensemble instrument, both in individual genres and in music transcending genre classification.

Currently, the approaches to marimba by composers are increasing and the category of marimba repertoire has spread worldwide and has taken root. The best pieces among them will be winnowed out and remain in the future. Nobody could imagine the present situation when I started to commission an original marimba work to a composer in the 1960s. At present, the number of marimbists has increased as the amount of compositions has increased. I hope that the number of marimbists who can emotionally move an audience will be increased, because good works are born if there are good performers. Otherwise, I am afraid the marimba might become an instrument unworthy of artistic evaluation.

Imagine that you were moved by marimba performance at the concert and you appreciated its deep impression of the performance without having a consciousness that it was marimba. If such a case becomes common, I think that the marimba will finally acquire citizenship in the music world that it deserves. At present marimbists are increasing, but they are playing in a small percussion field with the exception of some star players.

Music is integrated part of a musician's life. The music by young performers who are gifted or have the ability of finding out the essence of music will deepen enough as they grow older and have experiences. I hope the time when such a marimbist will play an active part as an artist in wide music fields will come. At that time, rather than the evaluation as a minor instrument, the marimba will be present as an integral instrument appreciated by the general public.

FINAL MESSAGES

Finally, I have messages for the next generation of marimbists. We live by benefiting from the cultural heritage left by the great geniuses of the past. Please do not limit yourself to one instrument, the marimba, but look for sources of creativity in all fields of art. I learned all about the approach to music and the way of expression from the flutist Marcel Moyse. When I was a child, my mother often took me to art museums. The inspiration I received there from the paintings of geniuses is the source of my creative energy today.

Please look at yourself strictly for art. I live with respect and gratitude for the great heritage of the past. I hope that the marimbists of the next generation will be able to play a broad role in society as genuine musicians and artists.

Keiko Abe is a marimbist who has garnered immense praise and status as an artist who has left her mark on music history, receiving world-wide acclaim. She commands an overwhelming repertoire and appears regularly throughout the world in performances of solo concertos, chamber music, and improvisations. Abe is in demand as a guest lecturer and has given master classes in leading music conservatories in North America, Central and South America, Europe, and Asia. She is passionate about the development of the marimba, and her legendary achievement is the development of the modern 5-octave marimba. By both pioneering new technical skills and expanding the literature, she has transformed what was once considered a primitive "folk" instrument into a full-fledged concert instrument welcome in any of the most prestigious concert halls. She was the first woman to be inducted into the PAS Hall of Fame and has received numerous other awards. Her compositions have become the standards of marimba literature and can be heard in recitals by marimbists all over the world. Many modern composers have dedicated new works to her, and she has inspired and premiered countless new compositions. In addition to her work as Professor of Marimba at Toho Gakuen School of Music in Tokyo, she maintains a full schedule of composing and touring.

New and Expanded Techniques for the Vibraphone

Part 1: Multi-Bow Technique and Pitch Bending

By Stephen Solook

When society shut down due to the pandemic two years ago, I had excess time to fill. I decided to learn more about the vibraphone. I initially used my time looking at existing repertoire, but quickly realized there was a lot that had not been explored with the instrument. I started to ask myself how I would like to see the instrument developed. I began a list of ideas that I was interested in. I then separated those ideas into vibraphone-centric or not. From there, I started to experiment.

When I found a technique I wanted to know more about, I started to research it from its conceptual origin. This research ultimately turned into my first collection of etudes that are meant to expand upon the vibraphone's technical ability.[1] Since the collection's completion, I have expanded on those techniques and explored more ideas. This article will discuss two of these techniques: (1) a technique for holding two bows in one hand, and (2) bending a pitch upwards. In a future article I will discuss prepared vibraphone and using external resonators. One thing to keep in mind: although I developed these techniques on vibraphone, all these ideas work on other instruments.

MULTI-BOW TECHNIQUE

Since percussion bowing began, it has been limited to one bow per hand; now there is an accessible way to hold two bows in each hand. This technique allows a certain amount of independence between each bow. Accidentals are possible by rotating the inside bow (see Example 1), or by holding a single bow in one hand. When using a 3/4 or full-size bow, one can reach up to an octave or more depending on the size of the bars and the range. The only limitation is how quickly a bar activates.

When developing this technique, I used German style bass bows that were 3/4 in length, with the brand Pops' Bass Rosin, which is not too soft or too hard. To practice this technique, you will need two bows, but if you are only learning how to hold them, bows are not required.

To get started, I will first identify the parts of the bow (see Example 2).

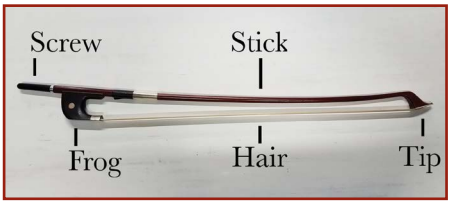
Here is a quick description of how to hold the two bows.

1. Separate the hand into two parts: Part 1 — outside three fingers; Part 2 — index and thumb.

2. Rest the first bow on the middle section of the middle finger, and wrap your middle, ring, and pinky fingers around the bow (see Example 3).

Example 1

Example 2



3. Next, place the inside arch of the frog of the second bow on the middle section of the index finger. Wrap the thumb around so it is resting over the frog, and almost parallel to the stick. (see Example 4).

4. At this point the hair of both bows should be on the same plane (see Example 5).

Next, I will go over adjusting intervals.

1. On the "inside" bow, the bow touching your thumb, push on the outside part of the bow with your thumb. This is the part closest to the top of the frog. As you do this, have the screw go behind the other screw and bow. The distance between the two bow tips becomes wider (see Examples 6 and 7).

2. You can adjust the distance between the bows with your "outside" fingers. This bow does not move as much, but it does feel more in control.

Regarding bowing direction, it is important to be able to bow in both directions. There are advantages and disadvantages to both, particularly when holding two bows. The more parallel the hair is to the side of the bar, the quicker the bar can activate, but as you will find, it is difficult to keep the bows perpendicular to the bar because of the angle it creates with the wrist. When bowing down, you will be creating a more restrictive angle with your wrist, which can be uncomfortable. The downward direction can sometimes speak quicker, and the bar will not become unseated from the bar post(s). When bowing up, you will not put your wrist in an uncomfortable or awkward position but will need to be more aware of the pressure you are applying against the bar. Regardless of which direction you choose to start, it is helpful and might become necessary to be able to bow in both directions.

With the basic grip and understanding, it is time to start bowing. Start with bowing small dyads like seconds or thirds. Bow in both directions until you are comfortable and able to balance the two notes. To add more pressure against the bar, which affects the volume, press on the muscle below the little finger for the outside bow and at the crease at the base of the palm for the inside bow. Continue working on slightly larger intervals until comfortable. As the interval becomes larger, you will need to pay attention to the angle of the bows above the bar. The bows can be in a configuration of /\, /|, or |\ (see Examples 8, 9, and 10). I generally try to keep them in a /\ position, but there are times that one may prefer or require the other positions.

With this information, we can now

Example 3

Example 4

Example 5

Example 6

Example 7

Example 8

Example 9

Example 10

Example 11

talk about bowing individual notes while holding two bows. To bow individual notes, simply move the tip of the non-playing bow away from the bar. If you look at the side perspective it will look like Example 11.

I demonstrate this technique in a video produced for the Vibraphone Project. This video includes what I've described above, and more basics about bows and bowing technique. For enhanced information, I recommend reviewing it. (*https://www.youtube.com/watch?v=J0vuUWhDp-dU&t=3s*).

To hear and see how I have written for three bows, you can refer to my etude "On a theme by Joseph Haydn." *https://youtu.be/NbHzozVE9sg*.

PITCH BENDING

When I first discovered a way to bend a pitch up from an original pitch with a Superball, I was excited to research whether others had previously explored this possibility. Joshua Smith's dissertation reveals that, in the early 1960s, percussionist Emil Richards collaborated with composer Harry Partch and discovered the ability to bend a pitch up and down. Eventually, Richards showed the technique to Gary Burton, who showed John Bergamo, who showed composer George Crumb in 1964. In 1965, Crumb wrote his *Madrigals, Book I*, which may be the first composed piece to include downward pitch bending.[2] Jon Hassell's *Music for Vibraphones and Tape*, written in 1965, also uses downward pitch bending. The era of the 1960s was a time of exploration, and Hassell was associated with people who encouraged this behavior, like Karlheinz Stockhausen and possibly John Bergamo through known connections. With that said, it is not clear which piece was written first and where Hassell learned about downward pitch bending.

To find Superballs that work for upwards pitch bending, I first place a tuner next to the bar and identify the original frequency of the bar. Next, I place the selected ball on the bar between the center and the node, very gently press on the ball to keep it in place, and then strike the bar to see if the pitch rises on the tuner. If I feel that it is successful enough, I put the ball on a very thin and flexible dowel, like fiberglass.[3] (Note: When working with fiberglass, be careful of splinters.)

With the dowel in place, check the frequency again, now holding the dowel rather than the ball. The pitch can change more at the center of the bar. The amount of pressure you use changes the pitch, but as you add more pressure you dampen the bar. More effective balls bend the pitch with less dampening. You can also change the pitch after it is struck or bowed. I have found it is easiest to hear the pitch change when bowed. Bouncy balls are produced with different materials, and not all raise the pitch. Balls from the same manufacturer can vary between different production runs and not produce the same results. It is also possible to use two balls to raise the pitch more, but this also increasingly mutes the bar. The second ball can be placed on the bar or on top of the first ball.

An assortment of Superballs from different manufacturers has given me different responses. With generic Superballs, I have been able to bend pitches between the range of C4 – D-sharp6.

Balls of different diameter were required to change the pitch in different ranges of the instrument; each diameter has its own range. When applying it outside of the C4 – D-sharp6 range, it dampens the bar, lowers the pitch, produces the 1st harmonic, or a combination of these. With the generic Superballs, the pitches changed as much as 11.7 Hrz, but mostly 7.6 Hrz or less.

Wham-O Superballs bend the pitch more than a typical Superball and are the most effective, I have found. I received different responses from the balls currently produced compared to the original 1965 ball. The original Superballs bend the pitch more but are less accessible. The current balls are smaller with a diameter around 1 5/8-inch (41mm) than the older ones which are 1 15/16-inch (49mm).

Chart 1 is a list of results from the new and original Wham-O Superballs. For these experiments I used a Musser M55 vibraphone and removed the resonators. Pitches were bowed. The room was at 68 degrees. To my knowledge, the instrument has not been tuned.

In Chart 1, the "Average" is three or more takes. I put an easy amount of pressure on the bar when testing for the average. The "Max" may have only been achieved for a brief amount of time, and I put significantly more pressure on the dowel to obtain those pitches compared to the "Average."

The dotted box indicates the range at which the technique was most successful, meaning I could put the ball down easily to produce a raised pitch. Vibraphone bars outside of the stable area required me to vary techniques to get the documented pitch. In the lower register, the bouncy ball was closer to the node than the center, and the amount of pressure varied greatly. In some circumstances, I slowly rolled the Superball from the node towards the center, which allowed me to bend the pitch more before a harmonic occured. When starting at or rolling too far toward the center or adding too much pressure, I got the harmonic. Most of the time in the upper register I only had the ball rest on the center of the bar or added a very small amount of pressure.

The bold-faced numbers are the numbers with greatest change from the original pitch. As you can see from the results, there is a much larger pitch change from the original Superballs compared to the generic Superballs. In the lower part of the instrument, up to F-sharp4, I was able to bend at least a full half step, with 28.9 Hrz being the biggest recorded difference.

When creating your own Superball mallets, here are a few tips: I use a 3/16-inch diameter fiberglass handle that is roughly 6 inches in length. I pre-drill the Superball with a bit that is the same diam-

Chart 1

Pitch Name	Frequency (Hrz)	New Superball		Original Superball		Most Change of Hrz
		Average	Max	Average	Max	
F3	171.1	179	185.2	186	**189**	17.9
F#3	185.5	192.5	-	199.9	**211.5**	26
G3	196.2	206	-	208.4	**210.2**	14
G#3	208.1	216.5	222.3	218	**230.2**	22.1
A3	220.5	230.5	232	234	**238**	17.5
A#3	233.9	242.3	248	245	**250.9**	17
B3	247.4	254	257	260	**273+**	25.6
C4	262.4	272	278	286	**296**	24
C#4	278	292	297	294.3	**300.8**	22.8
D4	294.4	312	321	314	**323.3**	28.9
D#4	312.1	324.5	335.6	327.5	**338**	25.9
E4	330.4	342.7	352	348.7	**354**	23.6
F4	349.8	359.3	363	366	**373.2**	23.4
F#4	371.3	387.3	393.4	390.5	**394**	22.7
G4	393.1	409.5	414.4	409.7	**415**	21.9
G#4	416.5	427.5	432	430.1	**436.2**	19.7
A4	441.1	453.9	457	455	**460**	18.9
A#4	467.5	479	484.6	480.6	**489.3**	21.8
B4	495.1	503.2	**511.9**	506	510.5	16.8
C5	524.9	536	539.3	535	**539.5**	14.6
C#5	556	567	**568.8**	566.9	568.4	12.8
D5	589.1	598.5	599.5	598.7	**601**	11.9
D#5	623.9	632	633.9	632.6	**634.9**	11
E5	660.8	668.7	669.4	668.1	**671.2**	10.4
F5	700.7	705.1	706.7	706.5	**709.5**	8.8
F#5	742.5	747	748.2	747.3	**749.4**	6.9
G5	786.4	786.5	-	790	**791.3**	4.9
G#5	833.3	**833.9**	-	-	-	0.6
A5	882.5	**885.3**	-	884.1	-	2.8
A#5	935.3	940.2	-	**941.2**	-	5.9
B5	990	**993**	-	894	-	2.3
C6	1051	1054	-	**1054.8**	-	3.8
C#6	1113.6	1115.9	-	**1116.4**	-	2.8
D6	1179.9	**1183**	-	1181.2	-	3.1
D#6	1250.4	1251	-	**1252.1**	-	1.7
E6	1325.7	1326.9	-	**1330.2**	-	4.5
F6	1402.8	**1407.5**	-	1407.1	-	4.7

eter or smaller and go more than halfway into the ball. I do not use adhesives. To date, all the adhesives I have tried limited the pitch bending. If the dowel is snug in the ball, it does not come out easily.

Our understanding of pitch bending is not complete, but there has been some research published on downwards pitch bending. Rand Worland, a physics professor at the University of Puget Sound, has presented and published papers on this topic. His experiments have provided scientific reasons as to how pitch bending works. His published conclusion is: "The magnitude of the pitch change increases with both the mass of the pitch bending mallet and with the mode amplitude at the mallet's location".[4]

I showed this research to Rick Byers, owner of Fall Creek Marimbas. Rick made an important point: when tuning bars, material (mass) is cut away, which lowers the pitch. Rick then conducted an experiment to prove removing mass lowers the pitch, which he did with three materials (Rosewood, Padauk, and Aluminum). First, he took the frequencies from three different bar blanks. Next, he cut out a rough amount and took frequencies again, which showed a lower pitch change. Finally, he reattached material with epoxy, and took frequencies again, which showed the pitch of the bar going back up.[5] This showed that in these instruments, adding mass raises, not lowers, the pitch. (Chart 2)

I have been in contact with Dr. Worland, to ask about the upwards pitch bending, and the experiments Byers conducted. Here is his response, "The frequency of a bar increases with stiffness and decreases with mass. Making a bar thicker has more of an effect on stiffness than on mass. So, a thicker bar will produce a higher pitch, and a thinner bar (or undercut bar) will produce a lower pitch. Placing a mallet on the bar only adds mass and does not alter the stiffness. So the normal case is for the added mass to lower the pitch, when it's not actually part of the bar." With this updated information there is room for more experimentation to further our understanding of pitch bending.

To hear how I have written for upward and downward pitch bending, check out my "May 14th Postlude" etude. In the work you can hear the beating of two frequencies, or notes, against each other when bowed. *https://youtu.be/CGm1xsX-qWPM*.

Chart 2

Material	Tuning before arch cut	Tuning after arch cut	Tuning after epoxy
Padauk (14 x 2.5 x 1 inches)	Fundamental: A5 + 6 (cents) Harmonic (4th partial): C-sharp7 + 28	Fundamental: E4 – 7 Harmonic: E6 + 36	Fundamental: G-sharp5 + 17 Harmonic: C-sharp7 – 37
Rosewood (14 x 2.5 x 1 inches)	Fundamental: A-sharp5 – 30 Harmonic: D7 – 25	Fundamental: F-sharp4 – 8 Harmonic: F-sharp6 – 18	Fundamental: G-sharp5 + 32 Harmonic: C7 + 35
Aluminum (14 x 2.5 x .5 inches)	Fundamental: C5 + 18 Harmonic: F-sharp6 – 37	Fundamental: F4 + 24 Harmonic: D-sharp6 – 16	Fundamental: F-shart4 + 12 Harmonic: D-sharp6 + 25

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2. For more details about this interaction, refer to Joshua Smith's dissertation, "Extended Performance Techniques and Compositional Style in the Solo Concert Vibraphone Music of Christopher Deane."
3. In my experiments, thin wooden dowels lowered or deadened the pitch, while fiberglass dowels raised the pitch.
4. (2011, May 23–27) *Experimental study of vibraphone pitch bending using electronic speckle-pattern interferometry*.
5. Regarding aluminum: Rick theorized that using an aluminum solder would raise the pitch more than epoxy. Because the epoxy worked, we did not feel it was necessary to try aluminum for our purposes.

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Stephen Solook teaches percussion at Buffalo State University. He is also a dance accompanist at the University at Buffalo, an extra percussionist for the Buffalo Philharmonic Orchestra, and a member of the voice percussion duo Aurora Borealis. Steve's *Vibraphone Etudes for Extending Technique Vol. 1 & 2* are available through Bachovich Music Publications. His current research is on expanding the vibraphone as well as the cross intersection of music education and dyslexia. Dr. Solook received his doctorate from the University of California San Diego. His primary instructors were Steven Schick, James Preiss, Glen Velez, Michael Warner, Gordon Stout, Conrad Alexander, and Greg Giannascoli.

Work Worth Doing:
Incorporating Service Learning into the Percussion Curriculum

By Adam Groh

Far and away the best prize that life has to offer is the chance to work hard at work worth doing. —Theodore Roosevelt

Helping others is a foundational pillar of a career in education. Teachers have the unique opportunity to use their skills, knowledge, talent, and training to shape and guide the next generation of musicians. This not only applies to the development of percussion skills, but also opens up the possibility to help students enhance and refine their personal ethics, beliefs, and interpersonal skills. Service Learning helps students understand their role within a community, how they can employ their artistic abilities to help others, and builds upon the critical skills of empathy, collaboration, and communication they are already strengthening as musicians.

Fortunately, there are many ways educators can comfortably and organically build Service Learning activities and objectives into their curriculum. And by doing so, they continue to create strong musicians and stronger connections within their communities, helping them to see that this is "work worth doing."

WHAT IS SERVICE LEARNING?

According to Barbara Jacoby, Service Learning is "a form of experiential education in which students engage in activities that address human and community needs together with structured opportunities intentionally designed to promote student learning and development."[1]

Janet S. Eyler and Dwight E. Giles, Jr. at Vanderbilt University provide the following definition: "a form of experiential education where learning occurs through a cycle of action and reflection as students…seek to achieve real objectives for the community and deeper understanding and skills for themselves. In the process, students link personal and social development with academic and cognitive development…. Experience enhances understanding; understanding leads to more effective action."[2]

Both definitions make clear that there are two essential components to Service Learning: educational growth and community engagement. The key to distinguishing Service Learning from community service is the explicit connection, document-

Western Carolina University Percussion Studio Service Project at REACH of Macon County

ed through reflection and assessment activities, that students make between their work outside of the classroom and their academic progress.

Benefits of Service Learning include, but are not limited to:

- Providing opportunities to implement theoretical knowledge obtained in the classroom
- Establishing the relevance of course material by demonstrating its effect on peoples' daily lives
- Deepening students' understanding of their own community
- Helping participants develop and refine their personal values.

Leading a community drumming event can provide students with a chance to utilize their music performance skills while simultaneously providing an event to enrich the cultural offerings in their town. Similarly, offering a complimentary lesson or clinic to students at an under-resourced school will provide opportunities to develop teaching skills while also serving young music students in the area. These types of interactions can break down stereotypes, make students aware of issues that others are facing, foster a greater sense of empathy and understanding for students, and help to build healthier communities.

HOW TO GET STARTED

If you are interested in incorporating Service Learning into your curriculum, there are a few things to consider. First and foremost, what are you and your students passionate about? Many individuals feel "called" to a certain cause, issue, or type of service. Consider asking your students for ideas. They may be able to offer additional suggestions for potential projects.

The conversation about your interests and passions may naturally lead to the next consideration: What are the needs in your area, and who might be able to provide insight into what type of service will be most helpful? Are you in an area where many experience food insecurity? Are local schools under-resourced and in need of support? Do local domestic violence shelters need help meeting the needs of the community? While the passions that you initially identified may not align with the most urgent needs of those around you, there may be opportunities to create crossover or engage in a variety of service projects that will address multiple issues simultaneously.

Next, and perhaps most importantly, spend time considering where in your curriculum you can integrate Service Learning. Is this something that you want tied to individual projects in applied lessons, or does it make sense to use the larger numbers of an ensemble or other course? How will you combine the discipline-specific knowledge that they are acquiring in class with the service project in the community? Are there opportunities to connect service projects to concert themes or other programming choices in order to provide more context around particular issues? While identifying issues can be relatively straightforward, incorporating them into the curriculum can often be one of the hardest parts of the process. Making intentional connections takes more thought and planning, and may require rethinking certain aspects of the curriculum in order to include additional projects and initiatives.

After you have generated a list of possible projects, you should take inventory of what resources and connections you already have. Does your institution have an office to support Service Learning and/or Community Engagement? Are other departments or individuals on campus already doing this type of work in their own disciplines? Do you have colleagues at other institutions who are engaged in Service Learning and can give you support as you are starting out? Because of the prominent role that institutions of higher learning play in their communities, it is extremely likely that there are already many connections to local organizations woven into the fabric of your school. Take the time to meet the players, learn about the work that is occurring in your area, and determine the best way to start contributing.

ASSESSMENT

As stated before, reflection and assessment are key components to designating an educational activity as Service Learning. Simple survey tools that allow students to reflect on their experience are all that is necessary. In many cases, there are individuals or offices on your campus that can assist you with the entire process, from the first steps of building partnerships with local organizations all the way through the assessment phase after the students complete their project.

One of the simplest ways to structure an assessment instrument, especially if you are in need of quantitative data to report to administrators, is with a Likert scale-style response. Questions may include such statements as: "The service element of this course helped me to connect the material learned in class to everyday activities," or "By completing the service project in this class I developed a better understanding of my role as a citizen." Respondents would then indicate whether they strongly agree, agree, are neutral, disagree, or strongly disagree with the statement.

Open-ended questions and prompts can also be useful tools for collecting information about the impact of your course activities, although it may take more effort to analyze responses according to key words and draw clear conclusions. You may ask students, "How did the service component of our course help you understand what we learned about in class?" Or, "Would you be more or less likely to volunteer within your community in the future after having the experiences that you did in this class? Why or why not?"

Many other examples of assessment instruments can be found online from organizations that support Service Learning and community engagement, or you can work with individuals and offices on your campus to craft something unique that best fits your work.

QUICK TIPS

As you are getting started in your Service Learning journey, here are a few quick tips for making things run smoothly:

Avoid overly political issues or organizations.

It is no secret that we live in a highly-charged political environment. While you may choose to volunteer with or donate to particular organizations as a private citizen, hot-button issues may be divisive and undermine the success of your work.

Incorporate hands-on service projects with fundraising or other endeavors.

If you are hoping that your projects will engage and motivate your students, be sure that they involve hands-on activity. In addition to projects that involve playing instruments, projects like building with Habitat for Humanity or working at a soup kitchen provide a tangible and visible sense of accomplishment that keeps students invested in the work they are doing.

Promote events and initiatives early and often.

There is a strong correlation between the success of a project and how much lead time you allow for planning, advertising, and promotion. The sooner you can plan your event or project, the better. The extra time and notice mean that people are more likely to see advertisements, plan to attend events, bring donations, or learn about your work.

Think creatively about who you can partner with, both on and off campus.

Some of your partnerships will be extremely obvious. Working with a local food pantry is the logical connection when running a food drive, but are there other organizations or individuals that would be good allies in your effort? Who can help you make new connections? Who can introduce new perspectives to existing work? What will help your students see the issues in new or deeper ways?

Engage students in the process to get more "buy in."

As the faculty member, you obviously have a great deal of influence over the projects that you take on, but involving the students in the process can help to get them even more invested. They may have suggestions for issues to tackle, partnerships to form, or any number of things. Find ways to bring them into the planning process.

Focus on local organizations and issues first.

It may be tempting to tackle large issues or work with national organizations, but most people want to see the impact in their own community. A day spent cleaning up roadside trash has a very obvious benefit to your town. Volunteering at a homeless shelter helps people in your area. Put most of your effort into your own community.

Start small and ride the wave.

In addition to starting with local issues and organizations, be sure to set achievable goals, and consider partnering with others rather than creating new projects. Local groups may already be involved in the work that you and your students are pursuing, and it is much easier to join an effort than to create something out of nothing. This can help build momentum and make your work more sustainable in the long run.

Make it easy.

When you are trying to involve students in service projects, it is important to recognize their circumstances. Did you schedule a service event at the same time as an important dress rehearsal or concert? Can you provide transportation to an event for those without cars? If your event occurs during a meal time, will food be provided? Think about the reasons that a student may not be able to participate and work proactively to solve them ahead of time.

CONCLUSION

The Council for the Advancement of Standards in Higher Education summarizes the many benefits of engaging with Service Learning as such: "Research shows that students who participate in service learning integrate theory with practice, report academic gains, develop a deeper understanding of course material, demonstrate critical reflection skills, develop a sense of social responsibility, and demonstrate a greater ability to work collaboratively."[3]

These reasons, along with a multitude of others, demonstrate that engaging with Service Learning in the applied percussion and ensemble settings is "work worth doing."

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The Perfect Pachydermous Percussion Pitch:
A *Looney Tunes* Rhythm

By Jeffrey Taylor

We're all a bit looney. Surely the memory bank of sights and sounds from your childhood includes an episode of *Looney Tunes*, a cartoon series produced by Warner Brothers Studios during the Golden Age of American animation (1930 to circa 1960).[1] Since the debut of *Looney Tunes* in 1930, the enduring characters of the show have connected with every generation, launching the franchise into the role of a commercial icon. Among the many contributing factors to *Looney Tunes*' eternal success is the superior use of sound and music to complement action, providing an emotional barometer while establishing setting and serving as a veritable timekeeper.[2]

Accompanying the on-screen activity in the cartoons with music requires a gifted team of artists. The directors, composers, sound editors, and musicians responsible for the work at Warner Brothers were some of the best in the world at their craft. Behind the scenes, the sounds of percussion served as an emphatic driving force, providing an infrastructure of sound to the storylines of the show.

With an extensive library of recorded material, an on-deck classical symphony orchestra, and a small team of animators in place, Warner Brothers hired visionary composer Carl Stalling in 1936 to lead the musical direction of *Looney Tunes* and its sister series, *Merrie Melodies*. Within months, Stalling was in full command of his process, utilizing original compositions and the music available through Warner's several publishing companies to complete the scores.

Although Stalling found preference writing for bassoon, trombone, and stringed instruments,[3] he consistently crafted space for percussion. As a small example of the 39 musical cues from the 1938 cartoon *The Isle of Pingo-Pongo*, three were predetermined for ad lib drumming.[4] Over the next 20 years, Stalling produced a six-minute score each week, accentuating his musical ideas with percussion while creating a blueprint for the future of music in animation.

Widely considered as one of the few great comic sound editors, multi-instrumentalist Tregoweth Edmond "Treg" Brown was an integral part of the *Looney Tunes* franchise. His creative work with sound effects are an extension of Foley art, a trade where artists recreate realistic, ambient, and everyday sound effects to enhance the auditory experience of movies.[5] Often, percussionists play instruments that are not distinctively percussion, and although not trained as a percussionist, Brown repeatedly accepted this role. When tasked with mimicking roadrunner chirps after the character famously outduels the coyote, Brown recorded the sound of his thumb tapping the top of a Coca-Cola bottle. Called upon to emulate the sound of a kangaroo bouncing, he placed a nail file on the end of a table and struck it repeatedly.[6] Time and again Brown ingeniously integrated percussive effects into Stalling's orchestrations, balancing a vast spectrum of instrumentation while providing the cartoons with a "great deal of subconscious humor."[7]

In addition to his "wizardry in creating innumerable sound effects from everyday objects,"[8] Brown also maintained an infamous cabinet of instruments. Several of the items were "traps," a collection of percussion sound effects created in the early twentieth century. Traps were manufactured to provide accompaniment to motion pictures during the silent-film era, accomplished by an assemblage of the "contraptions" into one station.[9]

When sound-synchronized films or "talkies" arrived in 1927, the percussion industry experienced a devastating blow in employment opportunity. By the close of World War II, drum companies had ceased production of these implements, rendering "traps" sound effects obsolete.[10] *Looney Tunes* is perhaps the final platform for consistent professional utilization of the instruments, as the soundtrack to generations of kids' lives is full of the vintage effects — shot cushions,

slide whistles, horse hooves, and train imitations — all seamlessly integrated into Stalling's orchestral scores by Brown.

In the 1930s and 1940s, the greater Los Angeles area encompassed the highest concentration of prodigious composers, writers, and performers of any place on the planet. Working within this mecca of musical greatness was the Warner Brothers Studio Orchestra, a group of musicians that were among the best in the business. Professionalism was a key requirement for the cartoon sessions, as each section of the score was often recorded in a single take. According to Greg Ford, director, historian, and consultant with Warner Brothers Animation, the music "was very difficult to play at times because there are so many key changes, sometimes timing changes right in the middle of the cue. So it was very complex and hard to do. But it was a great orchestra. I mean, the Warner's orchestra was, like, beyond belief."[11]

BASEBALL BUGS

From the immeasurable collection of players involved in the production of *Looney Tunes*, one of the biggest stars to emerge from the Warner Brothers animation studio was Bugs Bunny. The wise-cracking, quick-witted, outspoken rabbit is one of the most popular cartoon characters of all time. In the 1940s, director Friz Freleng served a central role in the development of Bugs' personality. Throughout the decade, he tested and refined a formula of conflict where Bugs would face adversaries worthy of his keen intelligence.

The proven recipe is on display in *Baseball Bugs* (1946), where the loveable rabbit faces a "whole team of interchangeable Gas-House Gorillas: hulking, blue-jawed, cigar-chewing monsters who pound umpires into the dirt when they don't like a call."[12] By the time of the episode's release, Carl Stalling and Treg Brown had spent a decade working together, mastering the art of cartoon musical accompaniment. The score for *Baseball Bugs* is a masterclass-worthy example of their work, enhanced through an extensive array of percussion.

A baseball game in New York City pitting the Gas-House Gorillas against the inferior Tea Totallers begins with a deep drive to left field, accented by a slapstick landing to a single note from a self-loading popgun. Gas-House Gorillas are dominating the action with a bell signaling each change on the lopsided scoreboard. The Gorillas' pitcher is intimidating everyone, including the umpire he pegs into the ground to the sounds of a popgun and a slide whistle. As the Gorillas go back on offense, a ball-to-bat-like wooden strike provides a steady pulse for the Gorillas to conga line around the bases, tom-toms providing the accompaniment.

In need of an improbable comeback, a light timpani roll beckons Bugs Bunny's entry to the game. Playing every position, a shot cushion accents the catching of his own pitch, which sends him crashing into the backstop; two notes from the xylophone imply his blunder. The xylophone returns when Bugs takes to offense; a tricky ascending run matches each stride he takes while rounding the bases. With a comeback on track, Bugs' next hit pinballs off multiple Gas-House Gorillas, bouncing to the sounds of bells and glass bottles. The scoreboard lights up with new numbers to an ad-libbing xylophonist, and the word "tilted" appears to the sound of a ringing bell.

With the Tea-Totallers' resurgence nearly complete, Bugs takes the mound, needing one out to finish the game. Before delivering a final heave, he confirms the intricate balance of percussive sound effects as another timpani roll leads his attempt to paste a "pathetic palooka with a powerful paralyzing perfect pachydermous percussion pitch."[13] To his surprise, the ball is belted out of the stadium, forcing Bugs to hail a taxi and the city bus to track it down. Taking an elevator to the roof of the Umpire State Building, he climbs a flagpole and throws his glove into the air, miraculously catching the ball to the sound of another shot cushion strike. In the closing moments Bugs bursts through the head of a bass drum with his powers of invention still unmatched, signaling the end of an episode lush with percussion prowess. Refer to Table 1 for a detailed list of percussive sound effects found in *Baseball Bugs*.

The music and sounds of *Looney Tunes* are engrained in our minds and hearts. In fact, "countless Americans attribute their first conscious memory of the classical repertoire to cartoons."[14] The show successfully introduced large segments of society to masterpieces of composition, while at the same time showcasing a balance of percussive sounds unlike anything heard before.

The time-honored show from the Golden Age of American animation provided a glorious window for percussion, where conventional sounds from our field were matched with the non-traditional. An active reliance on this blend enhanced some of the funniest gags in cartoon history and cemented the *Looney Tunes* soundtrack as an icon of our field.

ENDNOTES

1. Daniel Goldmark, *Tunes for 'Toons: Music and the Hollywood Cartoon* (Berkeley: University of California Press, 2005), 2.
2. Daniel Goldmark and Charlie Keil, eds., *Funny Pictures: Animation and Comedy in Studio-Era Hollywood* (Berkeley: University of California Press, 2011), 264.
3. Mervyn Cooke, ed., *The Hollywood Film Music Reader* (Oxford: Oxford University Press, 2010), 113.
4. Goldmark, *Tunes for 'Toons*, 35.
5. The trade originated around the early 1920s and is named after Jack Foley, who developed many sound effect techniques used in filmmaking.
6. *Behind the Tunes: Crash! Bang! Boom! – The Wild Sounds of Treg Brown*, directed by Constantine Nasr (Warner Bros. Entertainment, 2004), 0:05:06 to 0:05:38, https://www.dailymotion.com/video/xkikx1.
7. Leonard Maltin, *Of Mice and Magic: A History of American Animated Cartoons* (New York: New American Library, 1987), 266.
8. I.S. Mowis, "Treg Brown: Biography," IMDB, accessed December 1, 2019, https://www.imdb.com/name/nm0114830/bio?ref_=nm_ov_bio_sm.

9. These early kits contained a variety of "contraptions" such as whistles, cowbells, and more. "Contraptions" was shortened to "trap," eventually becoming "trap" kit, a modern-day synonymous term for drum kit.
10. Nick White, "Vintage Percussion Sound Effects," last modified October 4, 2019, http://www.vintagepercussionsoundeffects.com/historical-background.html.
11. Greg Ford, "Warner Brothers Music," interview by Linda Wertheimer, NPR Music, November 27, 2000, https://www.npr.org/2000/11/27/1114630/npr-100-warner-brothers-music.
12. Michael Barrier, *Hollywood Cartoons: American Animation in Its Golden Age* (Oxford: Oxford University Press, 2003), 471.
13. *Baseball Bugs*, directed by Isadore Freleng (Warner Bros. Entertainment, 1946), 0:06:15 to 0:06:23, https://www.dailymotion.com/video/x6tj0co.
14. Goldmark, *Tunes for 'Toons*, 107.

Table 1: Percussion/percussive sound effect cues in *Baseball Bugs*

Percussion/percussive sound effect cues in *Baseball Bugs*		
Action	**Instrument(s)**	**Time (min. sec.)**
Opening theme (The Merry-Go-Round Broke Down)	snare drum, bass drum, crash cymbals, xylophone	0.00 – 0.17
Baseball being hit by a player for the Gas-House Gorillas	slapstick and popgun as ball lands	0.35
Scoreboard (score changes)	bell rings (traps)	0.40
Gas-House Gorillas' pitcher preparing windup and delivery	cymbals accenting downbeats	1.00 – 1.13
Pitcher punches umpire into ground	popgun to slide whistle	1.16
Gas-House Gorillas getting hit after hit, conga line around bases	wooden strike (bat like), sustains steady pulse in accompanying music with tom-toms in background	1.31 – 1.58
Bugs Bunny's entry to the game is announced (playing every position)	light timpani roll	2.36
Bugs catches his own pitch, sending him into the backstop	shot cushion and xylophone (two playful notes)	3.09
Perplexing slow ball thrown by Bugs, multiple Gas-House Gorillas' swing and strikeout	tube swiped through air and deflating balloon	3.46 – 3.52
Bugs runs the bases after hit (sound occurs each time)	xylophone in time with Bugs' steps	4.08 – 4.12
Gas-House outfielder makes catch, hit so hard it sends him flying into the dirt (his own grave)	shot cushion, cymbals, rubber pull (balloon-like)	5.02
Bugs hits a ball that bounces off multiple Gas-House Gorillas	series of bells and glass bottles	5.18
Scoreboard lights up with new numbers	xylophone ad lib and ringing bell	5.20
Gas-House player runs the bases after hit	xylophone ascends and descends	5.35
Gas-House Gorilla takes a punch from Bugs and wobbles	tuned bells	5.38
Last at bat for the Gas-House Gorillas	timpani roll	6.11
Bugs makes catch to get final out	shot cushion and timpani roll	7.15
Bugs bursts through head of a bass drum	fabric tear	7.29

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Thoughtful, Creative Programming

Choosing repertoire for auditions, recitals, and other performances

By Nancy Zeltsman

Do you consider the effects of a piece of music you play? How would you describe a piece? Perhaps soft/serene, loud/flashy, sparse/poetic/thought-provoking, modern/edgy/challenging, groovy/trance-inducing, sweeping/majestic. We hope our playing engages and maybe transports listeners. We can never be certain what the effects will be, but our intentions may shine through and have bearing on how our performances are received. In addition to how the sounds emotionally affect listeners, it's often interesting or advantageous to consider historic inferences and other signifiers inherent in your choices.

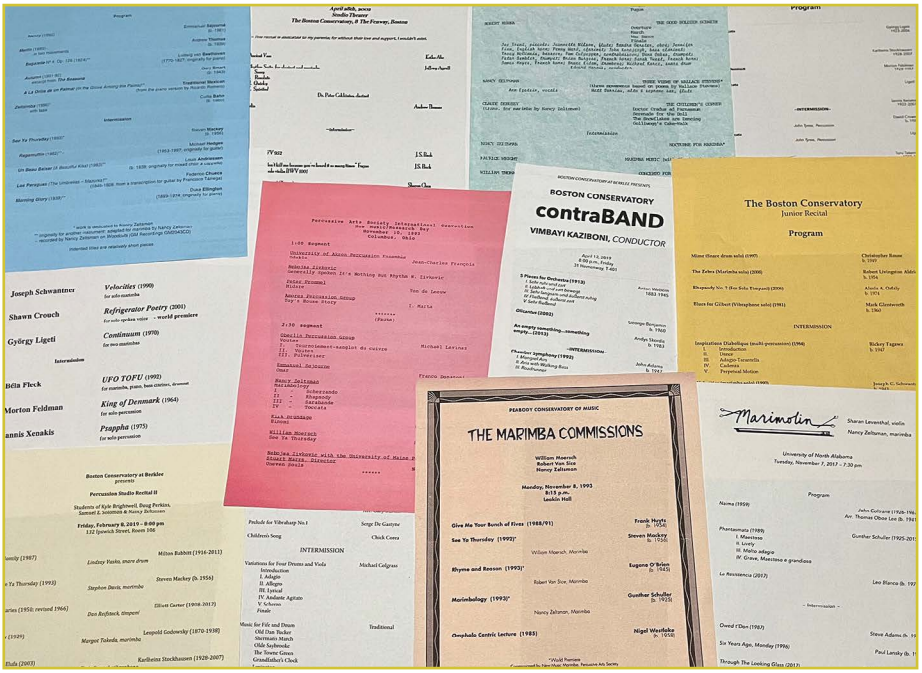
I'm fascinated by programming and the opportunities it holds to, essentially, *compose* a listening experience. "Concert programming is an art in itself" is the title of an article in which programming is defined as "putting together musical elements and coming up with an experience that totals far more than the sum of its parts."[1]

I hope to get you thinking about:

- what pieces (and, therefore, what types of musical elements) you choose;
- considerations for determining the order in which you will perform them;
- additional messages that could be inferred from the whole experience.

"A great concert can be like an emotional guidepost: a place to refer to. Our job is to create that place," said David Harrington, first violinist of the Kronos Quartet.

If we have an opportunity to perform only one piece and have a few options ready, we may want to choose one we think will represent a great deal about ourselves: our experience as a musician, our style of playing, and our musical taste. The opportunity to play more than one piece presents the chance to create a little journey. The length of time and flexibility available and parameters of the event factor in. Will your performance be part of a larger event? What length performance is requested? Will people be listening to the music intently or in the "background"? Is the arrangement of the audience in the



venue fixed or changeable, if this may affect your staging or mindset?

Specific examples that follow may provide a springboard for you to experiment with or invent possibilities. You may find that some ideas related to particular scenarios could have bearing on others.

COLLEGE AUDITION

A typical percussion audition to enter a college-level music program lasts 15 to 20 minutes. Requirements for an undergraduate degree program, for example, may be to perform:

- a concert and rudimental snare drum solo;
- a two-mallet and four-mallet solo on marimba, xylophone, or vibraphone;
- a solo piece for timpani.

That's five opportunities to choose material that could help you stand out. Through the repertoire choices you make, you have an opportunity to *not only* display your performing abilities, but imply a lot about your broader musical knowledge and musicianship, and maybe also something more personal.

Jacques Delécluse's "Study N° 1" from *Twelve Studies for Snare Drum* is a gem of an etude for concert snare drum. It demonstrates to our audition panel many things we want to learn about an applicant's snare drum playing. But if our faculty panel hears upwards of 40 applicants, and half of them play Delécluse "N° 1" (which is not far off from what typically happens), part of me feels that group passed up an opportunity. (I always wonder if those players weren't curious enough to explore past the first page of the collection.) The point is that it's very often played.

By no means do I wish to discourage those who have been working on certain standard pieces, or say you shouldn't play them. Certainly, it's fine to include some frequently performed pieces — and perhaps advisable (to demonstrate familiarity with some of the seminal works composed for your instruments, and because they may be excellent pieces). Certain audition lists may have specific suggestions or requirements. But when there is flexibility, well-selected alternatives could perhaps reveal more about you.

One year, a prospective student fulfilled the concert snare drum requirement by playing a piece composed by a friend of his. When our panel met after all the auditions to discuss stand-out applicants, we kept referring to "the one who played the snare solo his friend wrote." That reflected very positively on him. He'd played the piece very well. We remembered it, and him, because the choice was unusual. It inferred that he was interested in collaborating with and contributing to a community of musicians who support each other's work, and that he had the confidence or whimsy to think outside the box and be a little different. It took no extra time for him to convey all that; we understood it from his repertoire choice.

For my undergraduate percussion college audition, I performed:

- Eugène Bozza: "N° 13" from *Thirteen Arabesques* for solo flute (played with two mallets on xylophone);
- Napoléon Costa: "Étude 18" from *25 Études de genre, Op. 38* for guitar (played with four mallets on marimba);
- Saul Goodman: "Ballad for the Dance" for four timpani and suspended cymbal;
- Darius Milhaud: "Concerto for percussion and small orchestra, Op. 109" (an excerpt of the solo percussion part);
- A snare drum solo or two, but I don't remember which ones! (Ha!)

Looking back, my great teachers during high school — Ian Finkel, Bob Ayers and, for a short time, Buster Bailey — advised me very well. The audition panel could surmise from my choices that I was familiar with music by many composers, I was versed in repertoire beyond the percussion standards, and also knew some percussion history. The choices provided an opportunity for me to display understanding of various French and American musical styles, as well as *rubato* and dramatic phrasing. The selections were unusual and might be memorable.

Not every applicant has the musical upbringing to know (yet) what's standard or common. That surely varies in different parts of the world, and all of this is rather subjective! But understanding something about how repertoire for your instrument(s) is generally regarded is part of becoming an expert.

Also, think about the musical experience revealed through what you play. Flashy pieces comprised of steady sixteenth or eighth notes might demonstrate that you have good technique. Personally, I'm more interested in knowing whether you're able to phrase and breathe with your playing — to, ultimately, *talk to me* through your playing! Maybe you can talk to me through sixteenth notes. But, for an audition, perhaps you should demonstrate your capabilities as an interpreter of a range of compositional techniques and textures.

Seek advice from your teacher. If you do a pre-college visit before the audition, ask the percussion professor for advice.

If you're given a choice, in what order should you perform your college audition pieces? In many cases, the same considerations might influence the order in which you perform a student or professional recital.

PROGRAM ORDER

As soon as you present more than one piece, you're presenting more dimension about yourself and your interests. You're designing/composing a sequence of pieces so that — beyond the individual pieces of music — you can create a particular kind of flow, effect, and meaning.

When you attend a recital or concert, listen to a CD, or stream an album — that is, any presentation of a complete program — do you enjoy when the musical elements shift and develop gradually from piece to piece? Or do you enjoy big contrasts? Maybe the answer is some of each, depending on the context.

If you haven't thought about program order much, it might be valuable to think

about whether the order of pieces played a role in your listening experience. Note your personal preferences as well as what others seem to appreciate. Years ago, after one of my recitals, my father pointed out that the majority of pieces had ended quietly. I was glad for the observation. First, I wondered whether that disappointed him; meanwhile, it made him ask himself why he brought it up (both of which were interesting outcomes!). There's no right or wrong here; but it's something I've thought about ever since when I program. This may have helped me recognize that, generally, I lean toward introspective pieces, and inviting listeners to meet a mood and think about what's in it for them. I certainly enjoy very extroverted music too, but I play it less often.

Things that might be bases for the order you choose:

- Musical elements: Start by considering different tempi, volumes, key centers, genres, and moods to help determine the type of listening experience you want to create. Do you want a logical musical progression (with one or two elements shifting from piece to piece), or bigger contrasts from piece to piece
- Musical styles: You may want to think in terms of a progression of, for instance: older to newer works; serious/modern to lighter/fun pieces; or standard to experimental works.
- Performance comfort: You might want to start with a piece that "grounds" you and makes you feel more comfortable as you begin your performance. While you're getting used to the acoustics of the performance space, where listeners are situated, and maybe checking your nerves a bit, it may feel good to start with a piece that you are especially comfortable with.
- Technical comfort: You might want to start with a piece that helps warm up your hands, since you may not have been able to play for a period before the performance starts.
- Emphasizing your strengths: It may be effective to lead off, or end, with your strongest pieces. Maybe do both — with any "question-mark-y" material (for whatever reason) in the middle.
- Welcoming introduction: You may want to begin with a piece to gently, warmly welcome your audience into the sound world of your instrument(s), or that sets up the flavor of where your musical journey will go.
- Making a "flashy" impression: You may wish to start with very dramatic and exciting music. That may also demonstrate you're a risk-taker who relishes technical challenges.
- Lengths of works: If I sit down to hear a recital and see there are 15 pieces on the program, it might make me worry about how long an event I'm in for! But, if the first piece is two minutes long, the next can even be ten minutes, as I'll already understand that different proportions are part of the plan. Well-chosen selections of various lengths can be very enjoyable. The pacing of your recital can contribute to its meaning and effect.
- Mood/feeling/time of day: Some pieces feel to me like "morning," "afternoon," or "evening." It's one way to look at the mood of certain pieces that might factor into programming order.
- Staging and logistics: Try to keep to an absolute minimum time that an audience would need to wait in between pieces watching instruments and equipment being moved around.
- Holding applause: Occasionally, an audience may be asked to hold their applause until the end of a performance, or the end of a segment of a performance. This could happen with a concert of any length, but is more typical with shorter ones. This may heighten focus on the designed flow of pieces, the message and/or atmosphere of the music, or special acoustics of a performance space. It's most typical with shorter programs of 30 to 60 minutes. (I think audiences generally enjoy the tradition of showing their appreciation with applause between pieces. It also gives them a break from concentrating, and a chance to shift and stretch in their chair!) Reserve this request for when you have a clear objective.

AUDITION AND RECITAL LOGISTICS

Once you enter an audition room or walk on stage, people are watching everything! Think through the logistics of your performances. For example, visualize walking in to play an audition. Plan out (way in advance) and practice how you can set up with utmost efficiency. You could arrange all your sticks and mallets on one mallet tray *outside* an audition room, for instance, and ask if a proctor would carry it in for you. Have your music sorted out so you'll be able to efficiently plop it on music stands stationed at different instruments, or be ready to quickly turn between scores on a tablet.

It stands out to an audition panel — *not* in a good way — when someone takes longer than usual to get ready to play, or is wandering around in circles figuring out what they need for the next piece. It's positively noted when someone sets up quickly and then looks poised, alert, and eager to be personable with the committee. In the case of an audition, the setup of major instruments may be pre-arranged and fixed. Be able to work with that.

In other situations, a lot of advance planning may be required to ensure efficient instrument moves mid-performance. For concerts of pieces with mixed instrumentations, it may provide performers peace of mind to be able to take the stage and walk to pre-set "stations" where chairs, stands, and percussion instruments are positioned exactly as they prefer. Some professional performance venues, however, have a tradition of groups performing each work positioned front and center on the stage, and they have professional stage managers to briskly effect these changes. If that's the case, players of any kind of percussion setup need to be adept at final positioning, or tweaking, very quickly.

PERFORMANCE LENGTHS AND TYPES OF PROGRAMS

Concert lengths can vary a lot, and yet still feel like a satisfying, complete experience. Performances should be long

You might want to start with a piece that "grounds" you and makes you feel more comfortable as you begin your performance.

enough that your audience feels it was worth the effort made to attend, and that they gained something of value. Keep in mind not only the actual lengths of pieces, but the anticipated total performance time — including applause, preparation time you need in between performing each piece, possible spoken introductions, and stage changes.

Possible lengths (and effects)

• Short and sweet (no intermission): I've heard very satisfying programs that lasted 40 minutes up to an hour with no intermission. Sometimes, the point is that the lack of intermission will emphasize the continual flow and connections within the program. Many times, hearing a short evening concert, I feel very satisfied and grateful (and happy to get home if it's been a long day, or to have time to socialize with friends afterwards).

Be creative with new models for championing live performance. (Percussionist Peter Ferry's "Micro-Concert Series" model is intriguing: an "approachable format of listening to music [that] lasts only 20 minutes, highlighting a single composition with space for post-concert community discussion." He's done this sort of thing in a gallery during lunchtime, as well as online.)

• Two halves with an intermission: This is the most common format for concerts. Typically, each half is 30 to 50 minutes.

• In special cases, a classical concert may have three parts, with two intermissions.

• Two to three hours without an intermission: This is extremely rare in the classical realm, but more common for a band performing with lighting, staging, etc. (The longest live concerts I attended decades ago, by the Pat Metheny Group, lasted around three hours. I learned later that programming is a passion of Metheny's.) A thoughtfully considered sequence of tunes that keeps an audience eagerly following a long journey has the exhilarating payoff of having done so! An expansive orchestral symphony creates the same effect.

Mixed repertoire — many performers

A program performed by many different soloists or small groups (a "variety show") — each performing a single work that may differ immensely in length, genre, instrumentation — can be very enjoyable for audiences. The variety of music, personalities, and staging can be fascinating.

If you're invited to participate in this type of concert, find out what the others are playing. You certainly don't want to play the same piece someone else is playing. You might want to offer the program coordinator several options from which to choose.

The circumstances could be:

• A student showcase concert: Several times each school year, I assemble a program to showcase a number of students performing solo and/or chamber pieces. The performers typically span intermediate to advanced, college-level players. Everyone is well-prepared to perform an array of different repertoire, from classical adaptations to world premieres; from quiet, introspective works to virtuosic crowd-pleasers. There may be mixed-media works, and ones requiring special lighting.

• A professional showcase concert: The same format can be wonderful to introduce an array of music faculty connected with a school, organization, or festival; a competition's jury members; or any group of professional artists connected with a common cause or theme.

Note: This format can be stressful for some performers. (Sometimes when I only contribute one piece, I feel that, just as I got comfortable on stage, it was over!) But the great camaraderie often felt among performers can make up for that. It can be a very rewarding experience for all.

Mixed repertoire — same performer(s)

A solo performer or small group plays a varied program to demonstrate their specialty, musical world-view and/or the range of their tastes or recent explorations.

• Share "where you're at." For a variety of reasons, you may be working on a seemingly unrelated collection of pieces. This is frequently the case for students planning school recitals. Naturally, you may have been encouraged to learn a wide variety of pieces to expand your wealth of experiences. These can still be assembled in a satisfying way, and people may be very interested and appreciative to hear the range of your work.

• Even professional recitals sometimes include extremely divergent repertoire. It can nevertheless make perfect sense simply by virtue of an artist's authenticity. (I recognize the great French percussionist Jean Geoffroy, for instance, as having two main loves: playing the music of J.S. Bach on marimba and playing contemporary percussion and theater works. When Jean programs music from these distinct worlds side by side, they seem utterly natural — because the combination is completely natural for him.)

The ultimate objective of programming is to deepen the effects of your performance.

Program sequencing and more

• I begin planning a recital by listing all the possible works to include and their durations. (I encourage you to reference pieces by composer's names as well as titles. It's important to be aware of names and to credit creators.)

• I consider whether any piece particularly strikes me as perfect to begin or end with and, if there will be an intermission, what piece I would like to leave the audience with during that break. Then you can play around with how the pieces will flow from one to another.

• Sometimes it's fun to play with various symmetries and structures. The possibilities are endless; for example: first half, one instrumentation; second half, a different instrumentation. In a recital featuring a single performer, that could mean all solo pieces on one half, and works for small chamber groups on the second half.

Consider the nature of the works, which could be mirrored. Perhaps you open with music that's loud and fast, and gets slower and softer; on the second half, pieces could begin slow and soft, and then get louder and faster. Another scenario could be starting with a prelude, continuing with a piece comprised of short movements, and then playing a piece with electronic accompaniment; second half could be the same format, but with different repertoire.

I like the idea of plotting pieces to create "ricochet" effects. I often program works that feel similar to me on opposite halves, so one may feel like a foreshadowing or memory of the other. This brings a subtle, abstract connection for listeners to draw for themselves.

• A concert intermission is typically about 20 minutes, to provide people a chance to stretch. The length of break might be dependent on the venue; it could be longer if there is a place for audience members to socialize. This is perfect if you have a major stage set change.

• A post-concert reception for the audience (with beverages and snacks) is a welcomed setting for people to connect and mingle with the performers — and provide them valuable feedback.

WHAT TO PLAY

Standard works

As you develop into a seasoned performer, it's valuable (though not necessarily a must) to have first-hand experience playing at least a few of the major works composed for your specialty instrument(s). Professors, coaches, and certain curricula may have specific suggestions or requirements.

Some students wonder how many standard works they should learn. I don't have a number. Most important to me is that a performer builds skills and confidence as an interpreter. Make a point to observe lessons or master classes as others play some of the well-known works. And don't just listen passively; try to find a score to study as you listen.

When it comes to programming some standard, major works — for example, in the marimba repertoire, Jacob Druckman's "Reflections on the Nature of Water," Andrew Thomas's "Merlin," Steven Mackey's "See Ya Thursday" — you have the chance to shine a new light on them, not only with how you (uniquely) perform the work, but by its placement in your program. Perhaps, for you, certain musical elements in a piece conjure connections to another piece or pieces. In the case of Druckman, with six movements, you might divide them (three groups of two movements, or two groups of three, for example) and intersperse other pieces.

Adaptations, transcriptions and arrangements

These have been central to my musical life. The possibilities are *limitless*! They can be the primary means for personalizing your repertoire. Even if you program some "standards," the surrounding works you choose for a program can make it uniquely yours. Playing music from different periods and styles is so valuable to your growth as an interpreter and performer.

Bach is great — if you *love* Bach or a particular piece he composed. But why not investigate other Baroque or classical pieces you might adapt instead (from among the millions of choices available)? Perhaps you'll find something that has not previously been performed on a percussion instrument. Listeners will be grateful for the introduction to something unknown. And no one will get hung up considering if it worked as well on marimba *compared to* the instrument for which it was originally composed. Instead, they'll listen with complete openness.

Most common of these three are "adaptations": music that is already notated for another instrument, to which I make small changes. In some cases, I re-notate works entirely; in other instances, the changes are so minimal I can just cross out a few very low bass notes or a couple of notes from a thick chord, and read quite easily from the original score. I distinguish "transcriptions" as music for which you can't find notated music, but you transcribe it yourself by ear. "Arrangements" can include some of both of the above, with the addition of some creative elements of your own.

Finding published repertoire

Search for music in other places than YouTube! Try composers' and publishers'

websites, as well as websites of performers and groups comprised of particular instrumentations to find out what music they're playing (that you could try out as well).

Check out reviews of new publications in *Percussive Notes*. Whenever you're able to attend PASIC, visit publishers' booths in the Exhibit Hall.

Diversity in programming

Consider the importance of representation in your programming. Are you including works by composers of diverse backgrounds and experiences? Look for music by women composers and composers from different racial and cultural heritages to broaden your musical experience.

Speaking from the stage

Every recital can include some measure of speaking to/with your audience (or not). Consider each particular setting and audience, as well as your aesthetic goals. Speaking to your audience may make the concert more engaging for some audience members. They may enjoy feeling they got to know you a little. Hearing the artists speak can create a relaxed atmosphere and expand listeners' sense of shared experience.

With more adventurous music, your audience may particularly appreciate some clues regarding what to listen for. They may be drawn in by hearing background on a composer and their work process, and/or a personal connection you feel with a piece.

At certain times, you may want to allow certain music to "speak for itself." Program notes can accomplish some of the above. In the instances I don't speak at all, I make a special point to be available to the audience afterwards. (Personally, speaking from the stage is not my favorite thing. It uses a different part of my brain than performing.) Most often, I speak at least once during a performance — maybe to tell a quick story about one piece, and to thank anyone involved with making the concert happen.

Lecture-Recital

This might be equal parts speaking about music you'll perform and performing it. This format may be a requirement of some degree programs. It's also a fairly typical format for professional clinics.

PERSONAL PROGRAMS

The goal of many of my suggestions is to make your programs personal. It's wonderful when we feel *uniquely qualified* to perform whatever lies before us. A strong program is replete with pieces I love, or feel confident about, for the value they bring to an overarching desired effect.

You may have in mind a theme or storyline that runs through your program, with certain pieces selected expressly because they help to achieve it. Other centerpieces or elements can be poetry and spoken word; interdisciplinary experiments; connections to a part of the world or historic period; personal connections between composers; or your own connections to the music.

Performing is demanding and can be stressful. One thing that alleviates some of that for me is excitement about, and connection to, what I'm going to play. Most of us get nervous. If you think about it, nervousness is in part a show of respect and gratitude for the time our listeners will give us. After all, performances are *transactional*. It's important to remind ourselves that all the work we put into learning music springs from the pleasure of seeing possibilities and meanings in it, in order to bring them into the light — *to share them*.

Live arts are an important, thrilling part of human interaction. The ultimate objective of programming is to deepen the effects of your performance, to allow you to feel all the more poised to go inside the music, play from the deepest place of enjoyment of the sounds we can produce, and through your music contribute to the goodness in the world.

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Creative Practice

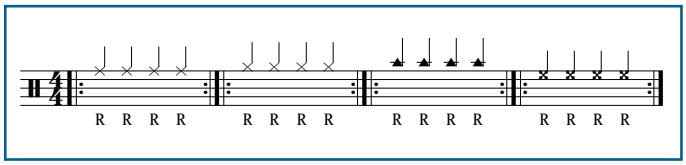
How to Build Vocabulary with Basic Independence

By Michael Dawson

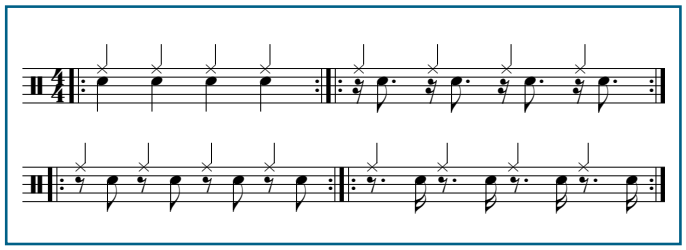
Every drummer aspires to express themselves on the instrument with creativity, musicality, and flow. But how do you develop these higher-level skills while honing the fundamentals, such as multi-limb independence? This article offers a few simple but effective ways to help you discover unique ideas on the drumkit at any skill level.

THE ALMIGHTY QUARTER NOTE

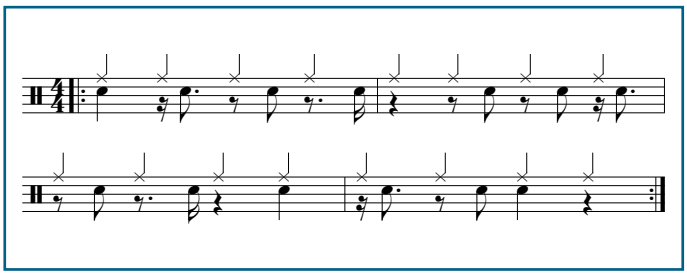
Independence exercises don't have to involve complicated multi-limb ostinatos and polyrhythmic melodies. Something seemingly simple as improvising over a repeated quarter note is challenging to master and supplies an endless backdrop for creative exploration. Let's start by playing quarter notes with the right hand at a moderately slow tempo (80 bpm) on a single voice, such as a ride cymbal, hi-hat, cowbell, or rim.



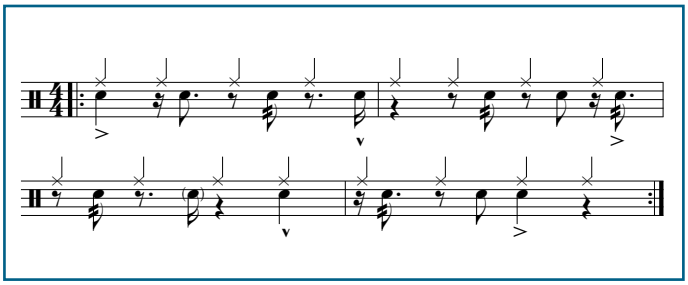
Now practice each of the four possible placements for a single sixteenth note with the left hand on a single voice (snare, tom, tambourine, etc.) over the quarter-note ostinato.



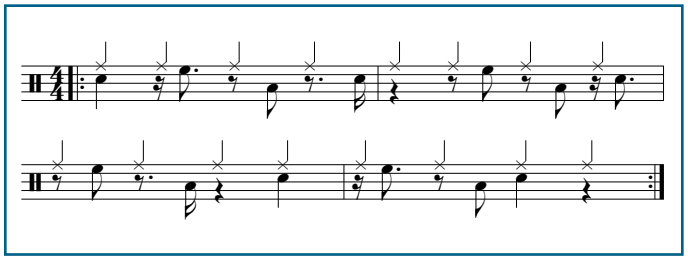
Pretty simple so far, right? Using just those four options, improvise a few four-bar phrases. Focus on rhythmic accuracy, tonal consistency, and — most importantly — musicality. Leave space. Repeat ideas. Use all your knowledge of phrasing, form, and melodicism to milk as much as possible from those four single notes played on one voice over a static quarter-note figure. You'll think you've run out of ideas quickly but trust me: there's always more to explore. *Practice past the boredom.*



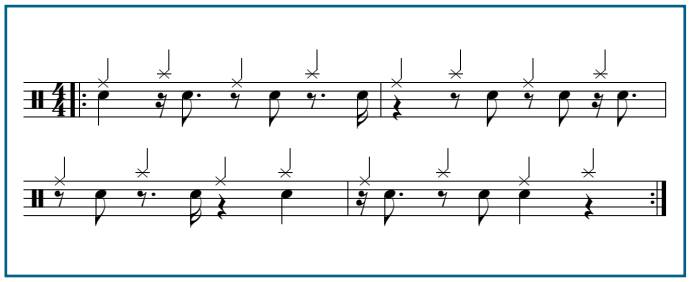
Now let's expand your sonic palette a bit. This time, explore different dynamics, articulations, and timbres with whichever instrument you use for the improvisations. If your left hand is on the snare, add rimshots, rim clicks, off-center hits, buzz strokes, and dead strokes to your phrases. The creative possibilities have multiplied exponentially.



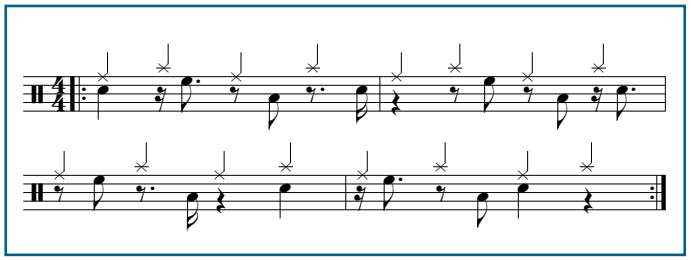
From here, you can steer your practice session in different directions. You could focus on orchestrating the left hand around the kit for greater melodic variety.



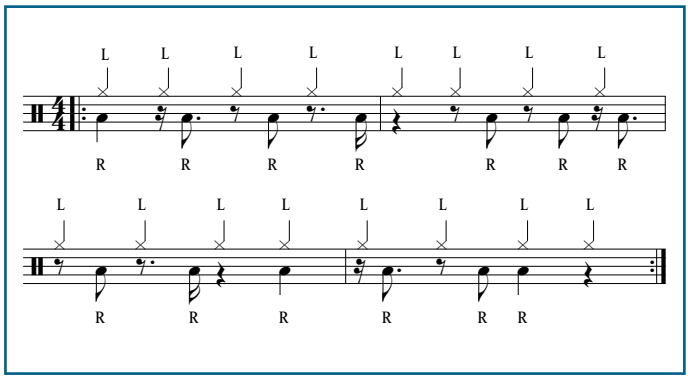
Or you could keep the left hand on a single voice and split the right hand between two or more sounds.



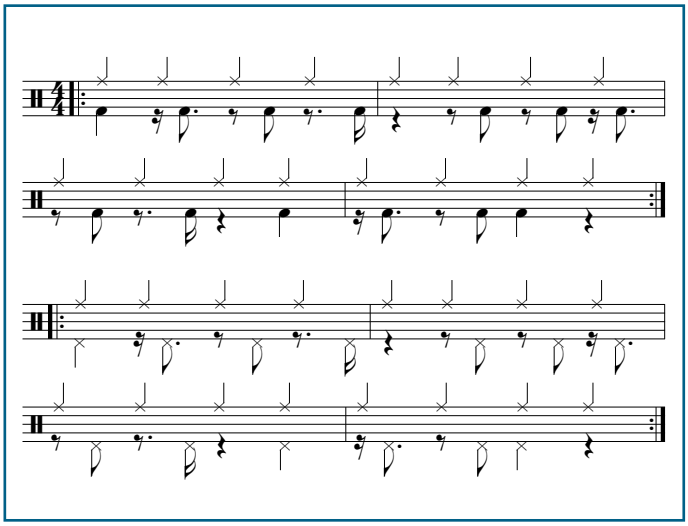
Or you could combine both concepts by moving the right hand between different sounds while the left hand improvises melodic phrases around the kit.



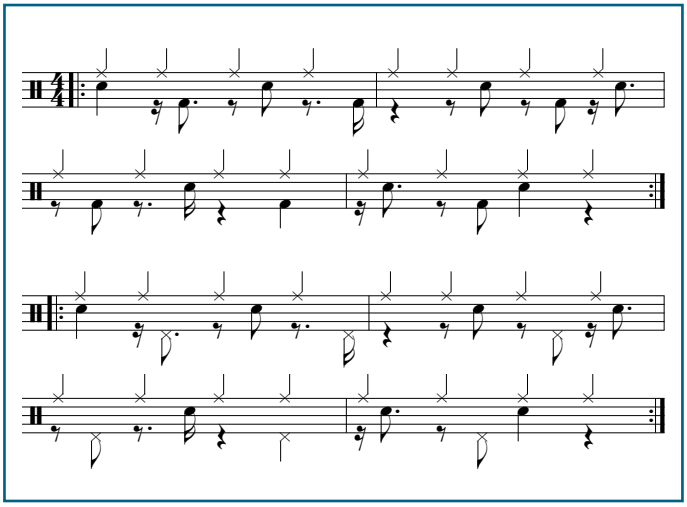
You can also swap the roles of each hand and use the left hand for the quarter-note ostinato while the right hand improvises simple single-note phrases.



If you spent five minutes on each of those ideas, you'd be 40 minutes deep into a highly effective, creative, and individualized practice session. And we've only used four simple single-note rhythms over a quarter-note ostinato. Each time you practice, try something new. For example, improvise simple melodies with the bass drum or hi-hat foot while either hand plays the ostinato.

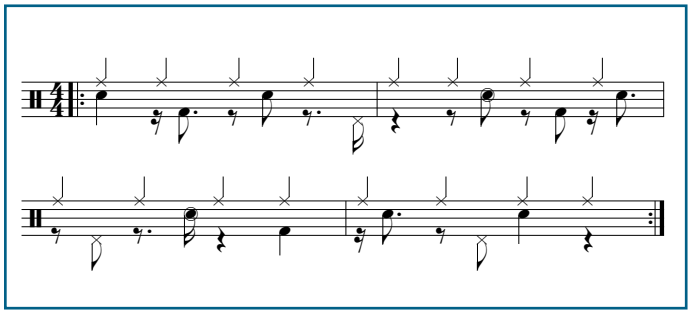


Or shift into three-limb independence by improvising melodic phrases between one hand and foot.

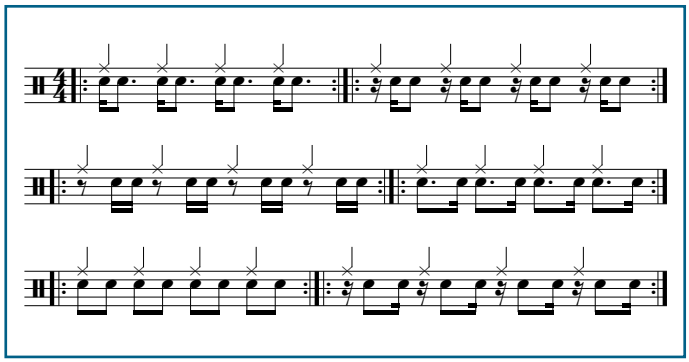


Creative Practice Video

To work on four-limb independence, incorporate both feet and one hand into the improvisations.



To explore more syncopated and denser melodies, improvise using two-, three-, and four-note patterns over a single quarter note. Here are all the two-note building blocks.



The possibilities for this type of creative practice are infinite. And while you're focusing primarily on discovering your own ways to express yourself with familiar rhythms, you're simultaneously developing multi-limb independence and honing your timing, touch, tone, and phrasing. It's a win-win-win!

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Tech Addiction and the Future Percussionist

By Kyle Bissantz

Musculoskeletal disorders (MSDs) are too common in the field of percussion. In a 1994 study on MSDs, "percussionists were 6.3 times more prone to hand pain and 3.9 times more likely to experience wrist pain than other instrumentalists."[1] In another study of 1,353 instrumentalists, the "41 percussion instrumentalists evaluated… included musculoskeletal (63%), peripheral nerve problems (15%), and focal dystonia (6%)."[2] This proclivity for wrist pain, MSDs, and nerve problems in percussionists may be a byproduct of more than just the physical rigors of our discipline.[3] "Between playing, typing, and writing, our wrists work harder than just about any other area of the body. They are the arm's whipping boy, suffering when there is a tension problem elsewhere, like in the shoulder, neck, elbow, or back."[4] And while "musicians use their body many hours a day… they are neither always conscious of the importance of physical demands of their work nor aware of how to deal with physical problems when they arise."[5]

The advent of a new decade brings new perspectives on our percussion craft and its interface with life in the 20s. The early 2000s introduced a modest collection of advancements in everyday technology, while the latter half of the 2010s proliferated handheld and wearable devices that have become a staple in everyday life. However, the medical community is discovering that "overuse of [handheld] electronic devices may adversely affect the median nerve within the carpal tunnel and the transverse carpal ligament, resulting in numbness, tingling, and pain in the hand. Caution may be warranted when using handheld electronic devices."[6] Additionally, "case reports suggest a link between high keystroke counts and hand disorders.[7] Frequent use of these devices without taking regular breaks may cause repetitive strain injury that affects not only the neck and shoulders but also the hands and wrists."[8]

Young percussionists of today will be the first generation to live their entire career, and life, with (and addicted to) these devices. Without awareness of this topic, this generation of percussionists may be on a collision course with an epidemic of injury and chronic pain due to the ubiquitous nature of handheld technology.

When coupled with the use of these addictive everyday technologies such as smartphones, tablets, computers (both laptop and desktop), and video games, percussionists may be unaware of the constant strain placed on their extremities. Many articles and studies have delved into the negative physical effects of these devices that people have become dependent on. Here are some of the findings and precautions that can help you avoid the painful side effects that come with the convenience of technology.

THREE CONDITIONS AND INJURIES AFFECTING PERCUSSIONISTS

1. Carpal Tunnel Syndrome

Carpal Tunnel Syndrome (CTS) is the most prevalent disorder presented herein due to the emphasis of review on smartphone usage. The carpal tunnel is a narrow channel in the wrist with nine flexor tendons, median nerve, and layers of sub synovial connective tissue, which facilitates sliding movements of the tendons and nerve during hand movements: binding this complex area are eight carpal bones on the dorsal side [back hand] and the transverse carpal ligament on the volar side [forehand].

Due to limited space, the median nerve in the carpal tunnel is always subjected to compression during hand activities. An abnormally high compression force on the median nerve due to usage or posture will restrict nerve blood flow and subsequently lead to impairment of nerve function.[10] This compression neuropathy is "characterized by pain, numbness, and tingling over the first 3½ digits and radial portion of the palm."[11]

2. Focal Dystonia

While not as prevalent in studies regarding technology usage, Focal Dystonia (FD) was presented consistently with regard to overall wellness and statistical evaluations of ailments in musicians and specifically percussionists. "FD in musi-

cians, also known as musician's cramp or musician's dystonia, is a task-specific movement disorder, which presents itself as muscular incoordination or loss of voluntary motor control of extensively trained movements while a musician is playing the instrument."[12] Some known risk factors are male gender and family history of FD, while other factors — specifically intrinsic — such as need for control, perfectionism, *anxiety*, and local pain may also have influence.[13]

3. Chronic Pain Syndrome

Chronic pain syndrome often affects people who consistently make repetitive movements and over time develop pain in various parts of the body. It can be caused by lifestyle habits or an injury. This pain is somewhat frequent or even constant in more severe cases. An awareness of FD warrants concern due to findings regarding chronic pain (CP), as "a certain overlap was seen between the psychological conditions in musicians with FD and those suffering from CP. In some of the musicians with dystonia, intensified sensory input, as in CP syndromes, trauma, or *nerve entrapment*, preceded FD. This CP/FD sequence means that some of the musicians with dystonia suffered from CP before they developed FD."[14] Excessive technology use may develop symptoms or clinical diagnoses of MSDs, possibly chronic, which can increase the risk of FD.

INTERESTING RESULTS TO CONSIDER

Regarding video games and computer work, studies throughout the 2000s found that there was insufficient evidence linking MSDs and computer work.[15] Interestingly, intensive keyboard use was cited in 2007 as an activity associated with *lower risk* of CTS.[16] Evidence in 2006 indicated that repetitive strain injuries (RSI) — specifically in adolescents[17] — are likely due to sustained and awkward *postures* during computer and video game use.[18] "Case reports of game-related tendonitis and ergonomic analyses of classroom computers suggest that concern is warranted."[19]

Furthermore, Carpal Tunnel Pressure (CTP) — a primary catalyst for CTS — increases to potentially harmful levels during long periods of mouse work, and one study found frequent mouse use 20% more prevalent in participants with CTS than those without CTS.[20] The sustained posture that this requires increases the pressure in the carpal tunnel.

A substantial body of research by Dr. Eugenia Hoi Chi Woo, et. al. between 2016 and 2019 clearly illustrates significant musculoskeletal implications of smartphone use, indicating "users are more susceptible to have swollen median nerve, impaired hand function, and reduced pinch strength."[22] It was discovered that the median nerve in the carpal tunnel was rotated, deformed, and displaced during the hand activities that people may be performing when using a smartphone, suggesting an increased risk of carpal tunnel syndrome (CTS).[23] In particular, increased wrist angle in extension, flexion, radial deviation, and ulnar deviation caused increased median nerve deformation compared with the wrist in neutral position or less angular deviation.[24] The most important result of the current study is that intensive users had significantly enlarged and flattened median nerves and greater TCL bulge within the carpal tunnel compared with non-intensive users.[25] In short, do not kink your wrists in any direction when using electronic devices.

Furthermore, "a previous study suggested that the median nerve would become deformed after using a smartphone for [only] 30 minutes."[26] Yet nerve complications are linked more closely to *addiction* rather than duration alone.[27]

CONSIDERATIONS TO APPLY TO STUDENTS, COLLEAGUES, AND YOURSELF

"Unlike other musicians, percussionists are unique in that they often play a variety of instruments, each of which requires extensive force when striking the instruments and repetitive exposure to vibration in the upper extremity."[29] Likewise, unnatural postures with forward-bent neck and shoulder positions are often commonplace for percussionists;[30] these sustained postures, repetitive motions, hand-arm vibration, and mechanical compression are all major contributing factors for developing MSDs.[31] The implementation of an effective ergonomic approach to practice and performance, a healthy lifestyle, and supportive environments can help with the prevention of MSDs."[32]

As has been seen through a prevalence of hearing loss due to reduced awareness of the importance of hearing protection during the 20th century, current and future generations born into extensive technology use are on a similar course of widespread impairment if not made aware of the implications of overuse. "It has been reported that university students spend, on average, >3.5 hours/day texting, e-mailing, scheduling, and internet browsing on their mobile phones, and they frequently have pain at the base of the thumb."[33] A small study conducted at Belmont University and Vanderbilt University found that university percussionists practice on average 5.3 days per week and between 30 minutes to five hours, with weekly hours averaging 15 hours.[34] When combining the estimated durations of practice and technology use, constant strain on the upper extremities — specifically the hand and wrist — warrants significant concern.

Woo's research propounds "strong evidence that *repetitive hand movements* may increase the risk of CTS."[35] Notwithstanding this statement relating to her findings on nerve entrapment and other complications at the wrist during smartphone use, *repetitive hand movements* are the essence of percussion. Regardless of technology use, the vulnerability of our upper extremities (particularly the wrists) cannot be overstated. Yet current and future generations of players will prod incessantly at their touchscreen devices, requiring this complex system of tendons, ligaments, and connective tissues at the carpal tunnel to work without repose even when away from practice and performance regimens. If these areas are not able to have

rest and recovery time, an example will be made of too large a population of unaware young percussionists in decades to come from the seemingly benign activities of texting, social media "scrolling," and other handheld device activities.

There are a variety of considerations for remediation of the physical impact when using technology. Most importantly, a neutral wrist position during technology use, adequate breaks, and exercise will mitigate CTP and nerve deformation.[36] It was noted that "among the three hand activities, thumb opposition with the wrist in ulnar deviation [causes]…the greatest compression force exerting onto the median nerve."[37] Therefore, single-handed use should be avoided, and minimizing the range of thumb movements is strongly recommended.[38] Popular mobile device peripherals (such as Popsockets®) are widely available; however, study of their ergonomic effectiveness and mitigation of strain was not investigated. Options such as voice dictation and various features native to some devices that track head and eye movements to mitigate thumb scrolling may be helpful as well.

IN SUMMARY

Awareness, moderation, and physical conditioning to prevent the combined impact of the percussion discipline and technology use should not be considered optional. Educators must advise their students of the latent dangers of overuse: independent organizations, brands, and identities across the percussion community should advocate for awareness.

Vic Firth is quoted saying, "After 50 years of performing with the Boston Symphony Orchestra, I personally know the damage that can be done to one's hearing…if I had known then what I know now, I would have worn [ear] plugs every day!"[40] Hindsight is 20/20. We are obligated to prevent a similar testament in 50 years' time regarding technology use. Effectively warning current and future generations will not be easy; we are dealing not only with overuse but addiction to these devices.[41] However, consistently making subtle changes can keep us from detrimentally being controlled by our handheld devices.

ENDNOTES

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5. Amélie Zosso and Veronika Schoeb. "Musicians' Social Representations of Health and Illness: A Qualitative Case Study about Focal Dystonia." *Work* 41, no. 1 (2012): 53.
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7. Esra Erkol İNal, kadİr Demİrcİ, Azİze Çetİntürk, Mehmet Akgönül, and Serpİl Savaş. "Effects of Smartphone Overuse on Hand Function, Pinch Strength, and the Median Nerve." *Muscle & Nerve* 52, no. 2 (August 1, 2015): 183. Carpometacarpal (CMC) osteoarthritis is a deterioration of the cartilage at the CMC joint at the base of the thumb leading to pain during thumb movements. De Quervain tensosynovitis is an irritation or constriction of the tendons around the base of the thumb making it painful to turn the wrist and grasp items such as a stick or mallet.
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12. Eckart Altenmüller and Hans-Christian Jabusch. "Focal Hand Dystonia in Musicians: Phenomenology, Etiology, and Psychological Trigger Factors." *Journal of Hand Therapy* 22, no. 2 (April 1, 2009): 144.
13. Amélie Zosso and Veronika Schoeb. "Musicians' Social Representations of Health and Illness: A Qualitative Case Study about Focal Dystonia." *Work* 41, no. 1 (2012): 54.
14. Altenmüller, 151.
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16. Isam Atroshi, Christina Gummesson, Ewald Ornstein, Ragnar Johnsson, and Jonas Ranstam. "Carpal Tunnel Syndrome and Keyboard Use at Work: A Population-Based Study." *Arthritis & Rheumatism* 56, no. 11 (November 1, 2007): 3620. This conclusion was drawn from a health status questionnaire mailed to 2,465 persons of working age.
17. Aura Ligia Zapata, Ana Julia Pantoja Moraes, Claudio Leone, Ulysses Doria-Filho, and Clovis Artur Almeida Silva. "Pain and Musculoskeletal Pain Syndromes Related to Computer and Video Game Use in Adolescents." *European Journal of Pediatrics* 165, no. 6 (June 1, 2006): 408. This article notes that RSI in adolescents is uncommon and, if present, is typically sustained as a sports injury, illustrating the significance of RSI potentially caused by technology use.
18. Robin Mary Gillespie. "The Physical Impact of Computers and Electronic Game Use on Children and Adolescents, a Review of Current Literature." *Work* 18, no. 3 (2002): 249.
19. Gillespie, 249.
20. Thomsen, 138.
21. David Rempel. "The Split Keyboard: An Ergonomics Success Story." *Human Factors* 50, no. 3 (June 1, 2008): 388.
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25. Woo, (2017): 877.
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29. Megan L. Doose, Mardys M. Hancock, Joseph W. Hewgley, T. Kevin Robinson, John S. Halle, and David G. Greathouse. "Median and Ulnar Neuropathies in University Percussionists." *Percussive Notes* 43, no. 3 (June 2005): 60.
30. Nina Paris. "Performing Arts Medicine Basic Concepts in Preventing Injury." *Percussive Notes* 33, no. 5 (October 1995): 64.
31. James T. Lindroth. "Musculoskeletal Disorders and the Percussionist." *Percussive Notes* 57, no. 5 (November 2019): 60.
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34. Doose, 61.
35. Woo, (2019): 10.
36. Woo, (2017): 879.
37. Woo, (2016): 12.
38. Woo, (2016): 14, Woo, (2017): 877, İNal, 187.
39. Woo, (2017): 878.
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Audio Signal Routing for Recording, Streaming, and Other Audio Projects with Live Electronics

By Dr. Alex Wier

The increased computing power of hardware devices in the 21st century and the development of complex, multi-faceted software platforms have allowed for more live electronic elements in music composition, improvisation, performance art, sound installations, and newly developing media. Live electronic elements include performer-triggered events, electronic responses to various inputs, audio processing, and electronic decision-making processes during live performances and installations. These techniques provide additional variability and creative possibilities in contrast to compositions or projects that involve only fixed-media components.

In addition to the expansion of more traditional performance spaces, a new realm of performing and sharing music via the internet has exploded thanks to such video platforms as YouTube and streaming platforms such as Twitch. The affordability and relative ease of use of digital audio and video recording equipment have made the booming new media of livestream shows and video content creation very accessible to artists. Often, these projects involve sending audio and video signals among multiple audio and video software platforms and to different input and output devices. Therefore, understanding how to route those signals is a crucial element for the artform.

Working with live electronic processes in any form often involves multiple software programs, like Digital Audio Workstations (DAWs) and hardware devices, like microphones and audio interfaces. Using live electronics may seem daunting for someone with little experience. However, there are a growing number of online resources from which to learn about various tools and processes of audio technology that should give those with less experience the courage to explore new compositions and projects. To that end, this article will discuss a few tools and considerations for routing audio signals in various projects that send sound between multiple software platforms that are running simultaneously, such as livestreaming and recording compositions with live electronic elements.

SOFTWARE-TO-SOFTWARE COMMUNICATION

One of the unique challenges of recording compositions with live electronics on one computer, producing high-quality livestreams, or working with more advanced audio projects that employ multiple types of software at once, is sending sound from one software platform to another. In a typical performance or recording situation, you would go into the software's settings to select a hardware device, like an audio interface, to utilize the input signals from microphones plugged into the device, as well as routing sound to speakers through the device's output channels. This would be the case if you were recording in a DAW like Audacity, GarageBand, Reaper, Logic, Ableton Live, or Pro Tools, or if you were performing a piece that utilizes a visual program language platform like Max/MSP or Pure Data.

Whether you are recording a percussion solo with live electronics all on one computer, or you are streaming or creating a video in which you are trying to simultaneously manage audio from your internet browser, Spotify, a DAW, and a video game, you will be trying to get one software platform to send or receive sound from another and will typically need additional software to create one or more virtual audio devices.

There are a number of free and paid options available on both Mac and Windows computers that provide different features. Some of these sound-routing software options simply create the virtual audio device and provide nothing else, while others of-

fer a visual interface and highly customizable routing options. For Mac, BlackHole, SWB Audio, and Loopback are common choices. BlackHole is free and simply creates a 16-channel virtual device on the computer, while Loopback has a higher price point, but it has a user-friendly visual interface and a lot of customization possibilities.

VB-Cable and JACK Audio Connection Kit have free versions for both Mac and Windows computers, and other Windows options include Voicemeeter and Virtual Audio Cable. VB-Cable and Virtual Audio Cable each provide virtual audio device capabilities, although to go beyond one stereo signal (two channels) you will need to pay a little money for either application to include more channels. Voicemeeter offers a visual routing and mixing interface in several different versions of an increasing number of features ("Basic," "Banana," and "Potato"). Windows 11 and the newest versions of Windows 10 also provide built-in basic audio routing in the system audio settings. If you navigate to the system sound settings and then to the "Advanced" settings menu (and then select "Volume Mixer" if using Windows 11), you will see the options for selecting different input and output destinations for each application currently running on the system.

BLACKHOLE AND VB-CABLE

For the sake of accessibility, I will demonstrate the setup process while utilizing the programs BlackHole (Mac) and VB-Cable (PC) because they are free. Once BlackHole is downloaded from the Existential Audio (developer) website, it can be installed on a Mac and it will not show up in the Applications folder, but instead as an audio device listed in the "Audio MIDI Setup" program. There are only minimal default Mac system options there for adjusting the audio sample rate and individual channels' volume levels. Most of the work for routing and adjusting signals would be done in the different software platforms you are using. Once BlackHole is installed and you can see the virtual audio device in "Audio MIDI Setup," you can then go into whichever software you are trying to utilize and choose "BlackHole 16ch" as the input audio device, output device, or both, as shown in Figure 1 with Ableton Live.

VB-Cable can be downloaded from the developer, VB-Audio, and when installed on a PC computer adds new virtual audio drivers. The virtual connection will appear in both the list of input and output sound devices in the system sound settings (see Figure 2) and also in the Device Manager. The process is then the same as outlined above with BlackHole: go into the settings of the software that you are using and choose the specific VB-Cable input and outputs as your audio devices, as needed. In contrast to BlackHole's 16 channels of input and outputs, VB-Cable only provides two channels (as a stereo pair through one connection) for free and then up to eight more channels by adding four more virtual cables after a small donation to the developer. Voicemeeter is also from the same VB-Audio developer and pairs well with VB-Cable by providing a visual interface to customize the routing of audio signals between different software platforms and hardware devices in use by the computer.

AGGREGATE DEVICES

Some software platforms allow you to select different audio

Figure 1: Sound Preferences in Ableton Live with the "BlackHole 16ch" virtual audio device selected in the dropdown menu as the "Audio Input Device."

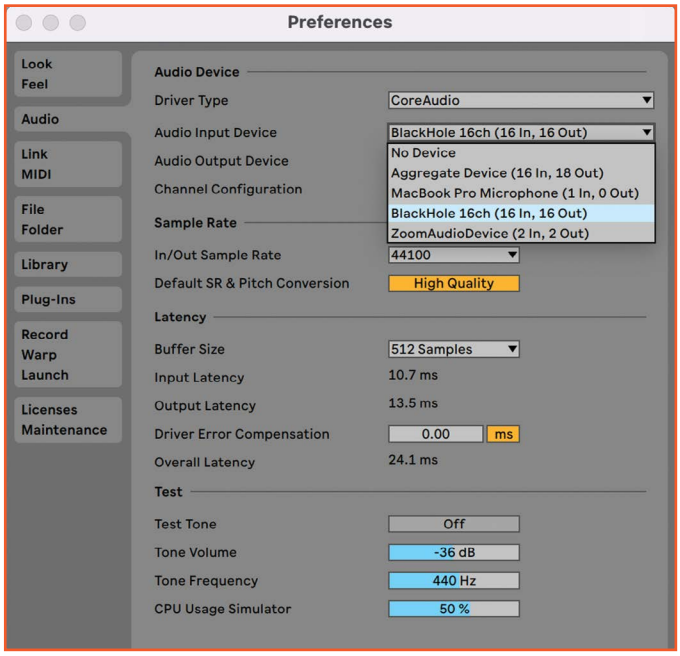
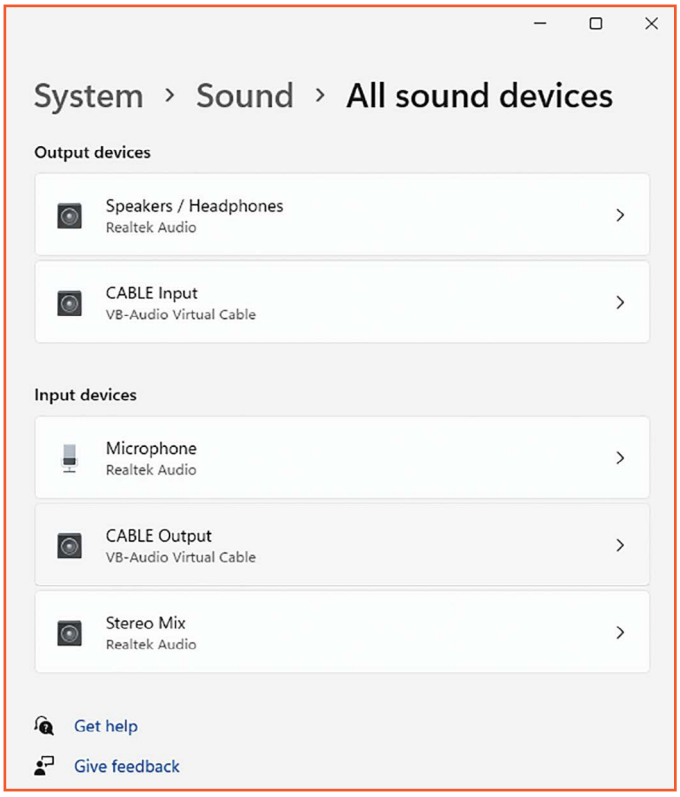


Figure 2: VB-Cable input and output connections shown in the list of sound devices in the Windows 11 system sound settings.



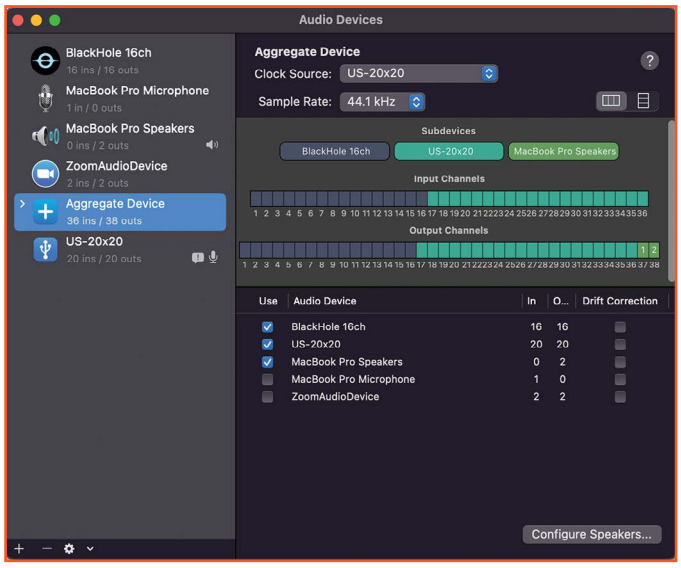
input and output devices while others want you to select only one device for both input and output. In the case of having to choose one but needing to send and receive with different devices, you can create an "aggregate device." This can be done easily through a built-in feature on Mac computers, and less easily with additional software in Windows.

On a Mac, in the same "Audio MIDI Setup" program where you earlier confirmed BlackHole had created a virtual audio device, you can click the "+" icon in the lower left corner and select "Create Aggregate Device." You can then select the newly created device in the list of devices on the left-hand side of the window and customize which devices should be aggregated, what order they should be in, and what channel numbers they occupy. So, for the example of having to select one audio device in a software's settings but wanting to utilize different input and output devices, you would select this aggregate device as the single device. Then, in the software, you would make sure to route the input signals from the channels on the aggregate device that are assigned to the input device you want to use and the output signals to the channels associated with the output device you want to use.

In Figure 3 you can see that my BlackHole virtual device is assigned channels 1–16 for both inputs and outputs on the aggregate device, and my audio interface (US-20x20) occupies the aggregate device's channels 17–36 for both inputs and outputs. So, if I wanted to have audio input from the first two channels of my audio interface, I would select input channels 17 and 18 in the software I was using. If I wanted to virtually send out audio on channels 1–4 using the virtual BlackHole device, I would use output channels 1–4 of the aggregate device in my software.

Windows does not have a built-in system utility to create aggregate devices, but ASIO4ALL is free software that can be used for such a task. That software and the setup process is quite complicated and therefore outside the scope of this article, but I wanted to mention it in case anyone wanted to explore it further. Hopefully, for many people, the basic built-in Windows software audio routing or using the VB-Cable or Virtual Audio Cable software platforms to utilize multiple different virtual audio cables would provide enough flexibility for their projects.

Figure 3: Mac "Audio MIDI Setup" window showing an aggregate device setup with three devices: BlackHole 16-channel virtual audio device, US-20x20 audio interface hardware, and Macbook Pro Speakers hardware.



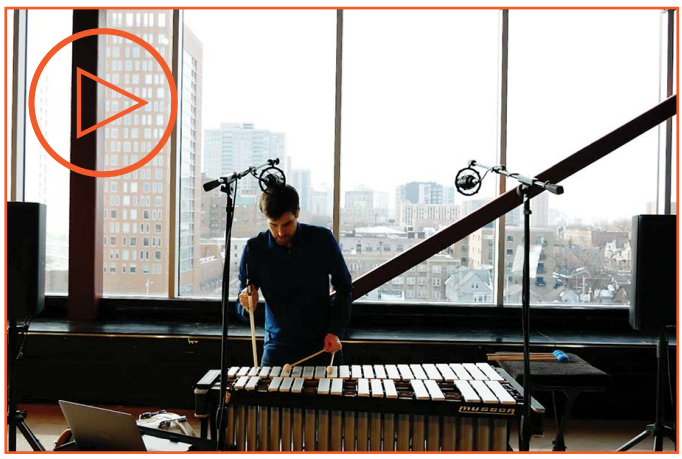
CONCLUDING EXAMPLES

Utilizing virtual audio devices, aggregate devices, and sound-routing software can provide a lot of flexibility in setting up multi-faceted projects with live audio. One example is livestreaming or creating videos using the popular open-source software OBS, which is free and available for Macs and PCs. Not only will streamers and video content developers have multiple software platforms open as they display their topic in different windows, play audio files, and record, but they also often utilize multiple camera angles. While OBS has a lot of functionality to help with the routing of audio and video signals, utilizing some of the software and practices outlined in this article will undoubtedly be necessary to successfully manage the signal flow of all the simultaneous content during a stream or while creating video content.

Another example is from my recent *"Electrified Percussion" grant project*, in which I developed and recorded new solo percussion compositions with live electronic elements. Not only did BlackHole help me route the audio output from programs like Max/MSP into a DAW like Reaper, but I was also able to use an aggregate device to route signal from the microphones that were plugged into my audio interface (hardware device) directly into Reaper for recording. This happened at the same time that the audio was virtually coming into Reaper from Max/MSP. One such example of that recording setup utilized in a video performance for the grant project is shown in Example 1.

No matter what experience level someone may be at with audio software and hardware tools, the most important part of

Example 1: Performance recording of Jordan Munson's "Where Light Escapes You."



the process is to spend time experimenting and using them until you feel more comfortable and fluent. Just like anything else you want to learn, immersing yourself in the experience without unrealistic expectations of learning everything all at once will lead to a more productive and enjoyable journey.

Dr. Alex Wier is the Assistant Professor of Percussion and Percussion Area Head at the University of Wisconsin–Milwaukee. He has maintained an active schedule of performances and teaching engagements around the United States, with particular interests in chamber music and solo repertoire with live electronics. He has served on the PAS Music Technology Committee and held office in multiple PAS state chapters.

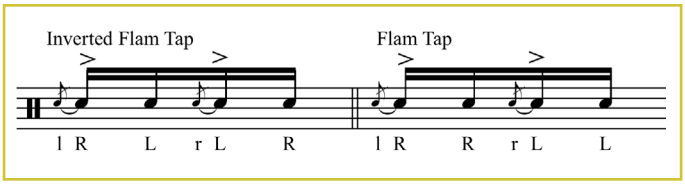
The Inverted Flam Tap: A Multinational History

By Ryan Alexander Bloom

A drum rudiment can be defined as a specific and standardized sticking pattern that has been named to assist in the pedagogy and performance of snare drum repertoire. The Inverted Flam Tap, PAS rudiment number 29, is commonly described in the United States as a 20th-century import from Switzerland, when in fact the sticking pattern is much older and has been in use in America for much longer. Under several different names, and with several rhythmic variations, the sticking pattern of the Inverted Flam Tap has been a part of American drumming systems for over 200 years, in addition to its inclusion in the rudimental repertoire of several other regional or national drumming systems. Tracing the specific Inverted Flam Tap sticking pattern through rudimental manuals from America, England, Switzerland, France, and several other European countries over multiple centuries shows a much longer and more interesting history than is typically acknowledged.

The Inverted Flam Tap is a Flam preceded by a tap with the hand that plays the primary note of the Flam.[1] It differs from the standard Flam Tap, which is a Flam followed by a tap with the same hand that plays the primary note of the Flam. The two rudiments utilize stickings for the tap that directly oppose one another, as shown in Example 1. The sticking of the tap is the crucial trait that separates these two similar rudiments, regardless of the rhythm or note values attached to either sticking pattern.

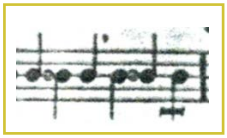
Example 1: PAS Flam Tap rudiments



ENGLISH AND AMERICAN EXAMPLES BEFORE 1950

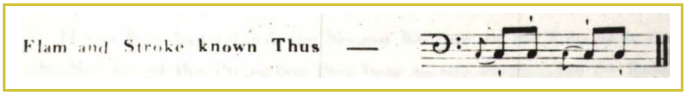
One of the earliest written rudimental definitions that could be interpreted as an Inverted Flam Tap comes from the English Douce Manuscript insert of the 17th century, where there is a symbol described as "a stroak with both sticks and a touch."[2] This could be interpreted as either a Flam Tap or an Inverted Flam Tap, as the exact sticking is not specified. In *The Young Drummer's Assistant*, published c. 1780 in London, the "Recruiting Call" contains several figures that match the pattern of the Inverted Flam Tap. There is no corresponding rudiment named in the manual's rudiment list, but the notation, shown in Example 2, indicates the sticking (upward stems are left hands, downward stems are right hands).

Example 2: Inverted Flam Tap sticking in The Young Drummer's Assistant



In 1817, British Army drummer Samuel Potter included a version of what we would now call an Inverted Flam Tap in the form of the Flam and Stroke, shown in Example 3.[3]

Example 3: Inverted Flam Tap sticking in Potter's The Art of Beating the Drum. *The marks above and below the noteheads indicate sticking.*

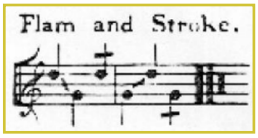


Potter further indicates a Flam and Faint and a Faint and Flam with standard Flam Tap stickings. The presence of three Flam Tap variations, one of which matches the Inverted Flam

Tap sticking, suggests that English military drummers were familiar with both stickings by this time.

Charles Stewart Ashworth published the first American manual to include the Inverted Flam Tap sticking in 1812 where, as in Potter, it appears as the Flam and Stroke, shown in Example 4.[4]

Example 4: Ashworth's version of the Inverted Flam Tap



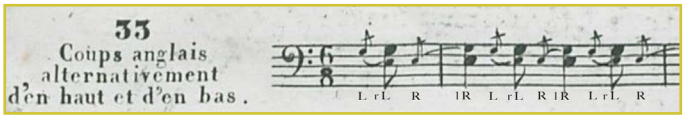
English and American authors would continue to publish versions of this sticking pattern by various names throughout the 19th century and into the 20th century. American author George Klinehanse reiterated Ashworth's Flam and Stroke in 1853. English author G. Tamplini indicates two Inverted Flam Tap rudiments, a Flam and Stroke and a Feint and Flam c.1850–1860, with straight-eighth and dotted-eighth rhythms respectively. American Colonel H.C. Hart used the terms Full Flam and Blow and Full Flam and Half Blow in 1862. Hawkes and Son published a book in 1904 in London that included three versions, Flam and Stroke, Feint and Flam, and Flam and Feint — all with the Inverted Flam Tap sticking.

The pattern's development in America is further encouraged by appearances in other publications including Nevins (1864), Sousa (1886), Smith and Greissinger (1897), Bower (1912), Safranek (1916), Gardner (1918), the U.S. War Department Manual 2000-5 (1928), and War Department Manual 20-250 (1940), among others. *Drill and Evolutions of the Band* by Russel Reynolds from 1943 is one of the last American books to include a naming convention similar to these examples (without directly referencing an older publication and before the popularization of the modern term Inverted Flam Tap). Reynolds indicated the Flam and Feint for the standard Flam Tap sticking and then used the names Flam and Stroke and Feint and Flam for two variations on the inverted sticking.

EXAMPLES IN CONTINENTAL EUROPE

Following early appearances in England and America, the next identifiable notated source of the Inverted Flam Tap sticking appears in France, where it is called the Coup Lenglet or more commonly, the Coup Anglais. This rudiment is attributed to a military drummer named Lenglet, who served King Louis Philippe I in 1833.[5] One of its first appearances in a published manual is in Niocel's 1863 *Théorie de L'Elévé Tambour*. The Coup Anglais became a staple rudiment, appearing in Carnaud (1870), Joly (1880), Pita (1885), and many later French publications. Carnaud shows Coups Anglais as a grace note preceding a Flam on an eighth note followed by a grace note preceding a Flam on a quarter-note, as seen in Example 5.

Example 5: Coups Anglais in Carnaud's École du Tambour

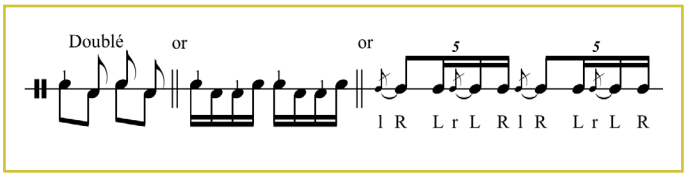


The name "Coup Anglais" literally translates to "English Stroke," implying an English origin. Joly cautioned in 1880 that it is a French rudiment and not English, despite the name and prior existence in England,[6] but Dr. Fritz Berger postulated that the sticking might really be English in his 1937 *Das Basler Trommeln: Vollständiger Lehrgang*.[7] In a 1981 letter published in *Percussionist,* Allen Benson stated that the sticking came from England through France on its way to Switzerland.[8] The French also use a separate rudiment with the standard Flam Tap sticking, called Bâtard or Anglais Bâtard.

Swiss military drum manuals do not include an Inverted Flam Tap rudiment until the late 20th century. From the 1728 *Verzeichnis derjenigen Ordonnanz-Streichen* to the *Tambour-Ordonnanz* of 1964 (including eight other manuals published in the intervening years), there is no rudiment that fits the sticking pattern of the Inverted Flam Tap. In the Basel drumming idiom there is a rudiment called the Doublé that matches the sticking, normally translated into English as the Tap Flam. The Doublé appears to be a direct descendent of the French Coup Anglais and is the Swiss rudiment that modern rudimental drummers generally seem to associate with the inverted sticking pattern.

The French connection explains why the pattern was originally only found in Basel, near the French border, and not in the historic military drumming of the rest of Switzerland. The Doublé may have first appeared in Basel around 1885 and it is named and notated by Fritz Berger in 1937. The spacing of the primary notes in the Coup Anglais can be very similar to the quintuplet rhythmic framework of the Basel Doublé shown in Example 6, in that it is sometimes unevenly spaced between the right- and left-hand iterations, depending on the player's interpretation.[9]

Example 6: Three ways of notating the Basel Doublé. The third represents Claus Heßler's interpretation.



The Doublé was eventually recognized as a rudiment in Swiss military drumming sometime between 1964 and 1980, though it is categorized as one of the borrowed "Basler-grundlagen," or Basel Rudiments.[10]

Outside of the aforementioned historic English, French, Basel, and modern Swiss military systems, the Inverted Flam

Tap sticking pattern exists in at least three other places: in 20th-century Danish military drumming practice as the Langt Forslag, in Norwegian trommeslåtter, where it is called Da Flam by Rolf Seldal, and in the modern Scottish pipe band repertoire as the Inverted Flam Tap. None of these other iterations are definitively known to be older than, or particularly influential to, the American usage of the pattern.

AMERICAN EXAMPLES SINCE 1950

The name Inverted Flam Tap and its variations overtook the older terms in America in the mid-20th century. This naming convention is often associated with Swiss drumming and the Doublé, though the American rhythm is typically played straight. Thomas P. Brown referred to the sticking as the Swiss Flam Tap in 1972,[11] and Jeff Donnelly labeled it the Tap Flam in 1978 in a list of Swiss rudiments.[12] Jay Wanamaker stated that the Tap Flam was Swiss in his 1981 *Snare Drum Dictionary,*[13] and it also appears in the 1989 revised edition of *The Earl Sturtze Drum Instructor.* More recently, Dennis DeLucia identified the Inverted Flam Tap as a Swiss rudiment in the 2002 "Yamaha Sounds of Summer" warm-up packet, and Dann Sherill listed the Tap Flam as a Swiss rudiment in 2008.[14] John S. Pratt argued that the Swiss Tap Flam was not a traditional American rudiment in his history of the International Association of Traditional Drummers.[15] All of these sources ignore the older English and American Flam and Stroke or Flam and Feint names entirely.

CONCLUDING THOUGHTS

The evidence seems to indicate that the Inverted Flam Tap sticking developed in England in the 17th or 18th century and that American drummers were using it by 1812. American and English drummers called it the Flam and Stroke or the Flam and Faint (or Feint), depending on the rhythm used. Variations on these names would continue to be common in English-language publications through the 1940s. It is also probable that the French imported the pattern from England sometime around 1833, though it has been said to have been invented independently. Either way, the French then passed the Coup Anglais to drummers in neighboring Basel in about 1885, where it acquired the name Doublé by the early 20th century. The American name for the sticking was eventually changed to the Inverted Flam Tap or Tap Flam by the mid-20th century, following its association with Basel drumming. Swiss drummers outside of the Basel region officially added the Doublé as a rudiment by 1980, and the Percussive Arts Society officially recognized the Inverted Flam Tap as one of the 40 PAS rudiments in 1984.

Traditional drumming may sometimes seem entirely removed from the drum corps style of the last several decades, but this is not always the case. Though it may not change modern usage or pedagogy, understanding the rich history of the rudiments can help modern players to connect current rudimental practices with those of the past. Whether known as the Coup Anglais, Doublé, Flam and Stroke, Tap Flam, or Inverted Flam Tap, if we look past the name changes, we can see that today we are playing one of the same basic rudiments present in some of the oldest English and American sources and still in common use in traditional and modern drumming systems around the world.

ENDNOTES

1. Wanamaker 1985, pg 42.
2. Douce c.1600-1650, pg 1.
3. Potter 1817, pg 9.
4. Ashworth 1812, pg 4.
5. Zielinski 2005, pg 22.
6. Joly 1880, pg 15.
7. Berger 1937, pg 14.
8. Benson 1981, pg 2.
9. Heßler 2016, pg 68.
10. STPV 2015, pg 8.
11. Brown 1972, pg 91.
12. Donnelly 1978, pg 53.
13. Wanamaker 1981, pg 5.
14. Sherrill 2008, pg 51.
15. Pratt, n.d.

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Ryan Alexander Bloom is the author of six instructional books published by Hudson Music and Mel Bay, including *Encyclopedia Rudimentia* and *Rudimental Grand Tour*. He teaches marching and concert percussion at Los Alamos Public Schools in New Mexico in addition to teaching private drum set and percussion lessons from his own studio. Ryan holds a B.A. in percussion from the University of Colorado and has toured and recorded with several bands.

2021 Composition Contest Winners

By Nathan Smith

The 2021 PAS Composition Contest received an astounding 70 submissions this year from all over the world. The composition category of solo vibraphone was intended to celebrate the one-hundred yearlong history of this wonderful instrument and add to its already stellar repertoire. Many incredible pieces were submitted, but only two could be selected. The two chosen highlight the imaginative timbre and sonic possibilities of the vibraphone and reflect the impact it has had on our contribution to the musical world.

Winner: "Flashing Back"
By Saverio Tasca

Beautiful and beguiling but always slightly sinister, "Flashing Back" is a 3-octave prepared vibraphone solo, roughly nine minutes in length, composed by Saverio Tasca. This piece utilizes extended techniques, like lifting specific bars to ring freely, using a stick for melodic sections, and placing cardboard over the keys during the frenetic groove-oriented segment. These subtle alterations to the instrument combined with an uneasy major tonality creates an experience reminiscent of a Willy Wonka boat trip, "with no earthly way of knowing which direction we are going."

Although this piece doesn't have notated movements, there are roughly three distinct stylistic sections with a recapitulation at the end. The piece opens with a chromatic scale running down the instrument into a rubato bass line. A repetitive melodic line being played with a stick and prepared bars ringing free defines our opening section. The bass line slowly twists around different tonalities, with the melodic line grounding the opening statement.

As we move to the second section, the bars are set back into place to allow the dampening bar to function. The tempo remains, but a sixteenth-note pulse of chromatic lines tying together colorful and lush sonorities begins to take hold. Energy builds as we slowly increase the tempo and rhythmic density, finally releasing with quiet chromatic lines dissipating into the ether, allowing our next section to take hold.

The third section immediately grabs the listener as we hear our first groove-oriented passage with melodic lines reminiscent of the opening statement. The theme continues to twist until we get to the next prepared section. A piece of cardboard is placed over the middle bars, and a dry groove replaces the hand-to-hand hocket from the beginning of the section. The groove continues as a melodic line develops in the outside extremes of the instrument, with an almost call-and-response effect. The altissimo registers makes its statement and the bass responds as the conversation slowly develops. The groove slowly begins breaking down as we are interrupted by pauses and melodic references to the first movement. Out of this we turn to the recapitulation of all the material from the piece in the last few moments

"Flashing Back" is one of my new favorite pieces for vibraphone or solo percussion. It's incredibly fun and easy to sit back and enjoy but still includes several thought-provoking moments. Many pieces get lost within one style, but "Flashing Back" gives you a taste of everything you want in a vibraphone solo. And while this piece has a few moments that are technically difficult, it is certainly within reach of many developing musicians while providing plenty of content to keep experienced players entertained. I can't say enough good things about this piece.

Saverio Tasca has been described by Dave Samuels as one of the most interesting percussion keyboard players and composers in Europe. He was born in Bussano del Grappa, Italy, and teaches at the Conservatorium de Verona. Recordings and more of his music can be found at his website, *www.saveriotasca.com/home_eng.htm*.

Honorable Mention: "Ritrattie Surreali"
By Massimo Lauricella

Wildly whimsical and devilishly intriguing, "Ritratti Surreali" is a five-movement work by Massimo Lauricella for solo 4-octave vibraphone, ranging 11 to 12 minutes in length. This piece moves

through a range of emotions in tonality, incorporating extended techniques, graphic notation, and vocal accompaniment. "Ritratti Surreali," translating to "Surreal Portraits," fluently taps into the excitement of surrealism while keeping the listener intrigued from beginning to end.

The opening moves through constant trills, creating a comfortable space, while the tonality keeps you on your toes and your teeth slightly clinched. The second movement, "Alter Ego," throws the listener into a schizophrenic experience as the vibraphone splits into two distinct personas, furtively moving from one melodic identity to the other. From there we continue down the rabbit hole with movement three, "Vib! Rato! Ratoo!," incorporating a guttural gibberish vocal accompaniment. A relatively more standard vibraphone movement, "Fryderyk 5.0," takes over, bringing the blood pressure down with blurs of permutation movements around the keyboard, utilizing the extremes of the instrument range simultaneously. The piece culminates in an aptly named movement, "Fuori Controllo," or "Out of Control." Tight intervals and tense chord voiciings jump frantically around the keyboard, pushing the piece into its final form that is, truly, out of control.

"Ritratti Surreali" is a whirlwind of a piece that would certainly get Salvador Dali's attention. Fast passages, quick technical jumps from extreme dynamics and registers, and dense chord voicings moving around the instrument all quickly add up to a very surreal experience. This piece is not for the faint of heart — player or listener.

This honorable mention is another in a long list of awards for Massimo Lauricella. Lauricella first appeared on the music scene with his piece "Impressions of an American Sparrow" in 1986, and he has continued to be a star in the international music scene. His entire catalog of works as well as recordings can be found at his website, *www.massimolauricella.it/Home*.

Nathan Smith is a percussionist, composer, and teacher at Northwest University in Seattle, Washington. He works with a variety of groups around the Pacific Northwest, regularly composing for local choirs, percussion ensembles, and the Seattle Seahawks Drum Line. For more information visit *www.nathansmithpercussion.com*.

New Percussion Literature and Recordings

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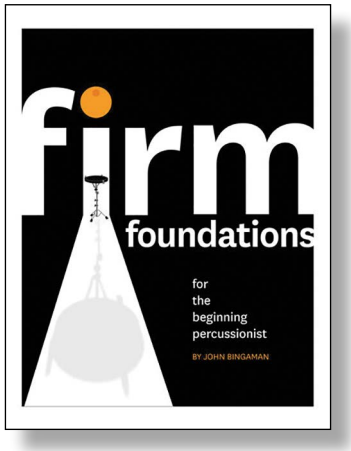
Difficulty Rating Scale

I–II	Elementary
III–IV	Intermediate
V–VI	Advanced
VI+	Difficult



GENERAL METHOD BOOKS

Firm Foundations for the Beginning Percussionist
John Bingaman
$41.99
John Bingaman Publications

Starting from prior to a student even holding sticks, *Firm Foundations for the Beginning Percussionist* is an impressive method book designed to bring students from day one of learning percussion into and possibly through high school. Organized with exercises, text on technique, and even worksheets for improving basic music theory beginning students should have, this book provides everything for a solid start in their percussion studies.

Created as a sequential method book, John Bingaman writes, "Each chapter is meant to build on the previous chapter in terms of content, tempo, knowledge, and skill development." The book is organized in three main units, which are then divided into chapters, with the last chapter in each unit being a promotion test to take before moving on to the next area. Prior to Chapter 1, Foundation Chapters show students the most basic skills to succeed in their musical studies. These are fantastic resources, using clever graphic design to introduce students to concepts such as pulse, counting, grip, stroke, and the musical alphabet. The opening pages regarding pulse, counting, and training your body to coordinate with a pulse are particularly good.

Bingaman has formatted this book in a workbook-oriented way. Beginning with no musical notation and relying just on stickings, the book then expands to traditional notation. Every exercise includes a tempo range the student should strive for, as well as a blank next to it for students to fill in what tempo they are currently playing. The promotion tests in the book are well thought out, and progress at a rate that is appropriate for students in middle and high school.

All the exercises and "practice lines," as the author calls them, are relatively short, used to isolate specific technical concepts. The book contains some longer etudes, but these are few and far between. Pairing this book with a collection of snare drum etudes and mallet etudes would be ideal.

In *Firm Foundations for the Beginning Percussionist*, Bingaman has created an innovative and thorough resource for directors to utilize with their beginning percussionists. The musical material combined with the worksheet-style organization make this a great resource that music educators are sure to appreciate.

—Brian Nozny

GENERAL REFERENCE

The Illustrated Story of Pan (2nd Edition)
Kim Johnson
$50.00
Pangea Ltd.

Kim Johnson has created a visually stunning and exhaustive book that details the evolution of steel pan instruments and performance. Set in a hardbound "coffee table" style, this volume will be of interest to academics and casual fans of steel band music alike. I have not read the first edition, so I cannot comment on any updates made in the second. However, I would be surprised if a third edition is published, due to the completeness of Johnson's research and storytelling in this volume.

Each chapter is compelling and combines research with personal anecdotes from Johnson and countless others he has interviewed. The chapters are titled "The Archeology of Memory," "Repercussions 1880–1939," "The Audacity of the Creole Imagination," "Makin Style," "Mas With Class," "Forged from the Love," "Render Under Caesar," "New Beginnings," "Women of Steel," and "Tomorrow's People," followed by an extensive list of recommended reading and acknowledgements. Johnson digs deep into the social and political underpinnings of pan, as well as the music and musicians themselves. His research takes the reader from 19th-century groundwork up to modern-day performances.

My favorite aspects of this book are the plethora of pictures, many from personal collections and never before seen, that feature both well-known pan musicians/composers and everyday citizens of Trinidad and Tobago, as well as the personal stories that Johnson has tracked down, breathing life and spirit into his research. At over 300 pages, this definitive volume will be treasured by a wide audience of pan scholars, performers, and enthusiasts.

—Jason Baker

KEYBOARD PERCUSSION SOLO

Charm IV
Kyle H. Peters
$17.00
Tapspace Publications
Instrumentation: vibraphone
Web: *score sample, audio and video recordings*

"Charm" is a great vehicle for high school or early university students to develop their approach to the vibraphone. The charm of "Charm" is that the six-minute vibraphone solo is written for (and should be played with) just two

mallets, allowing performers to focus on their sense of touch and spacial awareness around the instrument without the added distraction of the four-mallet techniques that so often dominate our practice hours.

Of further use to developing vibes players is that two versions of the score are provided: one without pedal markings and one with suggested pedalings. The piece's frequent repetition of its melodic content, along with its overt programmaticism (the composer's note alludes to it as having been "inspired by some of my favorite soundtrack music") make it all the more accessible to intermediate students.

However, the piece's accessibility, avoidance of four-mallet techniques, and determination of "medium" difficulty by the publisher are a bit misleading. For performers who have previously spent little time behind a vibraphone, "Charm" will require the development of vibraphone-specific skills before they can implement the various mallet dampening and dead-stroke techniques comfortably and seamlessly. This is a good thing! So often in large and small ensembles, we percussionists overlook opportunities for expressivity in vibraphone parts (which are, more often than not, written for two mallets), and "Charm" seems custom-built to address that need.

—Brian Graiser

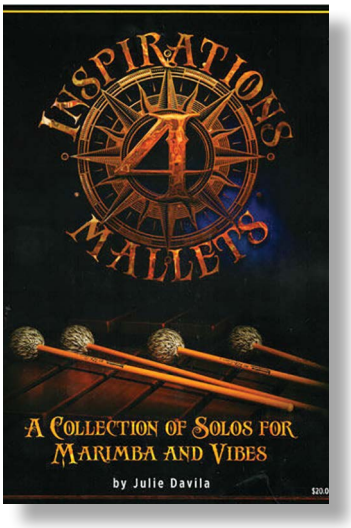
i view our love as lavender **III**
Kyle Skinner
$15.00
Per-Mus Publications
Instrumentation: 4.5-octave marimba
Web: *video recording*

This charming composition uses a theme-and-variations form to depict various kinds of love. Beginning with a expressive, sweet chorale, Kyle Skinner moves on to a lilting, yearning theme in F-sharp major. After developing the melody, he takes the listener in an unexpected direction, transposing the melody into the distant key of C major. The piece returns to the home key of F-sharp, now with a more expansive and sweeping melodic line.

The piece takes another unexpected turn halfway through, venturing into keys on the flat side of the circle of fifths (B-flat major, C minor, and D-flat major). First, Skinner explores an introspective, melancholy character through rubato and a lament-like bass line, then a dancelike, jubilant character through emphatic octaves in the upper register and full dynamics. This driving section gradually fades away into a sweet, nostalgic return to the opening theme.

"i view our love as lavender" is roughly 5½ minutes long, with some variance in performance time due to the rubato, expressive sections. The piece is fairly idiomatic; there are a few moments where the hands cross, but the necessary coordination is easy to develop with a little practice. Much of the melodic content is interwoven between the hands, in a texture evocative of Eric Sammut's "Rotation II." An excellent opportunity to develop musicianship and interpretation, "i view our love as lavender" is a great choice for an advanced high-school student or a beginner collegiate student.

—Hannah Weaver



Inspirations 4 Mallets **V**
Julie Davila
$20.00
Row-Loff Productions
Instrumentation: 5-octave marimba, vibraphone
Web: *score samples, audio and video recordings*

Julie Davila has created a volume of engaging and audience-friendly works for the intermediate keyboard percussion student. The book contains six marimba solos, two vibraphone solos, and a duet for marimba and vibraphone. While the heading on this review states that a 5-octave marimba is required, there are only a couple of passages in the entire collection that go beyond the range of a 4.3-octave instrument, making the pieces accessible to a wide variety of students.

The pieces are all tonal and highly idiomatic to both instruments. Two of my favorites are the energetic, multimeter "Drive" for solo marimba and the impressionistic "As She Sleeps" for solo vibraphone. While geared toward the student percussionist, these are not "beginner" pieces, mostly due to the quick tempo in which many are set, but they would serve a player possessing a basic understanding of double vertical, single independent, and permutation strokes.

Much like Davila's previous collection, *Impressions on Wood*, each work is preceded by a lesson plan that provides exercises based on specific passages. She also provides a page of "grip checkpoints" for both Stevens and Burton technique and a page of "permutation and technique builders" that are succinct and practical for the developing mallet player. I believe this book will become popular for its usefulness in high school and undergraduate percussion studios, and I congratulate Davila for creating a volume that is both practical and musically engaging.

—Jason Baker

New Adventures: Ten Pieces for Vibraphone **V–VI**
Rusty Burge
$30.00
Media Press Music
Instrumentation: vibraphone
Web: *score sample, video recording*

There are very (*very*) few people who can match Rusty Burge's level of achievement and expertise in the combined fields of jazz and classical vibraphone, and his *New Adventures* collection is equal parts testament to that achievement and a doorway to following one or both of those vibraphone paths. The collection includes two brand-new pieces and eight earlier compositions that have been adapted for this book, all with the intent of creating a folio of improvisatory music that would be meaningful projects in the hands of both classical and jazz performers.

The effort is enormously successful. This is not a book of "jazzy-sounding classical charts" or classical works with some jazz-adjacent improvisatory elements artlessly shoehorned into the score; this is a truly complete collection of ten excellent standalone works that will be genuinely fulfilling in the hands of jazz or classical percussionists.

What strikes me the most about this collection is the sheer variety. Some of the pieces lean more towards one side of the spectrum or the other, including some (such as "Waltz for Tomorrow" and "Leaf") with traditional jazz chord changes provided for improvisation, and others (such as "Lines" and "Emergence") that seem like etudes more in the style of Stravinsky than Strayhorn. "Lines" is a particularly interesting example, as the performer is eventually allowed to improvise, but over the C octatonic scale, rather than the blues. "Careful Planning" is another noteworthy entry; the piece may be played as a duet between vibraphone and unpitched percussion (or other partner), and allows both performers the chance to improvise freely.

My favorite piece is the expressive and harmonically rich "Emergence," but you won't go wrong ordering anything on this menu. In addition to the artistic (and, at an advanced level, educational) value of this collection, I greatly appreciate the clarity of Burge's notation. All pedalings, deadstrokes, dampening, and improvised elements are intuitively and cleanly marked so as to be easily understood by performers who don't want to spend half an hour looking at the music through a microscope. For advanced vibraphonists and students of all stripes, I cannot recommend this book highly enough.

—Brian Graiser

Port's End **IV+**
Steven Medley
$10.00
Media Press Music
Instrumentation: 4.3-octave marimba

Steven Medley is a composer of primarily electronic music who on occasion dabbles in writing for percussion. In "Port's End," Medley deviates from electronic music with this four-minute acoustic solo for low-A marimba. This piece re-

quires four mallets and shows an awareness of the marimba idiom. At the same time, "Port's End" raises several questions. Who is the intended performer? What is the meaning of the title? Has the piece been performed by a human performer?

Upon first looking at the score, the reliance on a repetitive, strophic chord progression coupled with the double vertical dominated textures make this reminiscent of intermediate, often pedagogical, solos such as "Rain Dance." However, after playing through the solo, I found several moments that may prove challenging to the intermediate marimbist, such as quick interval shifts, rapid rhythms with hands in different registers, and repetitive patterns with slight harmonic and texture changes, all of which can be tricky to execute. At the same time, the piece largely lacks expressive notations such as phrase markings and several of the idiomatic beaming conventions highlighting musical layers that we expect in pieces written for more advanced performers. Furthermore, there is no description or program notes about the piece, which given the previous, does little to aid the performer.

However, if the accents are exaggerated and the remaining notes are interpreted as tenuto, a second layer appears revealing an interesting compositional idea that is worthy of exploring. At the marked tempo, bringing this interpretation to light would be difficult, as the accents are often marked over dyads requiring independence between mallets in the same hand. However, if accomplished, the resulting texture highlights an angular melody that jumps between hands and reveals a lilting motive that is perhaps hinting at the sea or, more comically, a dwindling digestif. Regardless of the piece's meaning, the vagueness of the score provides an interesting opportunity for a more advanced player to craft an interpretation of a piece that, while not technically demanding, would require a convincing musical interpretation to bring to life.

Given my affinity for low-A marimba solos, I think "Port's End" would be an interesting addition to a solo recital program. It has potential to provide a moment of repose on a high-energy program or simply exist for the benefit of amplifying new voices within the percussion repertoire. Lastly, given its pleasing and repetitive harmonies, it would provide an interesting opportunity for collaboration with choreographer and or dancer.

—Quintin Mallette

Voice in the Snow IV
Stephen Myers
$15.00
Per-Mus Publications
Instrumentation: 4.3-octave marimba

It is refreshing to encounter a composition for low-A marimba in a world of 5-octave solos. "Voice in the Snow," a new work by Stephen Myers, utilizes many four-mallet techniques that make it practically useful. Rotation strokes, one-handed rolls in the right hand, double stops, and single mallet notes are all included.

Musicality is a must when performing the piece. For example, many passages have a melodic line with accompaniment — some with permutations in both hands, others with a more pianistic right-hand melody accompanied by the left hand. The musical material is in A-minor and often has a hauntingly "cold" sense (which makes sense based on the title).

"Voice in the Snow" is short (around four minutes) and could work well on an undergraduate recital. My hesitation regarding fully recommending it is that I think the piece could use a bit of tightening up. Even though it has some isolated beautiful moments, it doesn't move organically from section to section and is difficult to follow from a formal standpoint.

—Joseph Van Hassel

KEYBOARD PERCUSSION DUO

Dance of the Lampyridae IV
Evan Gedert
$20.00
Per-Mus Publications
Instrumentation: 2 marimbas (one 5-octave instrument)
Web: *video recording*

This is an excellent new duet for marimbas. "Lampyridae" is the word for a family of beetles that emit light — commonly known as fireflies. Overall, the piece is very soft, never rising above a *mezzo forte*, and starting with very soft thirty-second notes in one part while the other part plays sporadic notes over them. These notes slowly become more active and begin to form the melody. Over the course of the work both players have the chance to play the melody along with the underlying thirty-second notes.

The piece requires only two mallets for each player; however, each must be proficient in moving around the instrument and executing some arpeggiated figures. Although marked at quarter note = 66, the thirty-second notes give it a faster feeling and will require strict tempo control so they do not become out of control.

Overall, this is a great representation of being in an open field and watching fireflies as dusk begins to settle. The melody slowly becoming more active evokes the imagery of the beetles' lights becoming more active, while the underlying thirty-second notes give it the feeling of numerous flying insects being in the air.

This duet would go well on a senior or even advanced high school recital. It would be perfect in the middle of a concert to give a peaceful feeling to the audience, such as its imagery provokes.

—Josh Armstrong

PERCUSSION ENSEMBLE

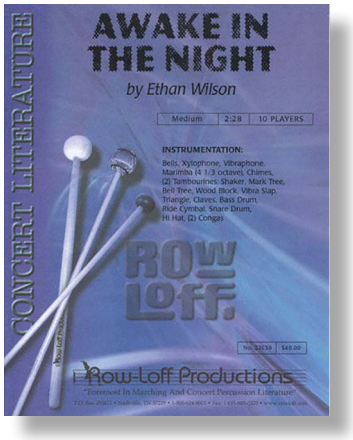
Aurora Borealis VI
Dennis Anderson
$20.00
Media Press Music
Instrumentation: four 4.3-octave marimbas
Web: *score sample*

"Aurora Borealis" gives credence to the expression "don't judge a book by its cover." It is an absolute masterpiece of composition that not only subverts the expectations of the player and listener, but offers a necessary rethinking of the contemporary marimba quartet.

Anderson is incredibly detailed in both the instructions and the measureless score. There are details for mallets, varying roll speeds, lines to bring out in polyphonic phrases, and lighting. The players are to be set up in four different corners of the room. Though the score does not contain measures, Anderson is extremely precise in his orchestration and timing. Players will need to have mastered visual communication with each other across the room to have a successful performance. The themes and motives are elegantly passed around the ensemble, and performers will need to know not only their own part, but everyone else's as well.

"Aurora Borealis" is a necessary addition to the marimba quartet repertoire, and I highly recommend it to any serious ensemble looking for great music to play that will offer a more immersive experience for their audience.

—Joe Millea



Awake in the Night III
Ethan Wilson
$40.00
Row-Loff Productions
Instrumentation (10 players): orchestra bells, xylophone, vibraphone, 4.3-octave marimba, chimes, 2 tambourines, shaker, Mark Tree, bell tree, woodblock, Vibraslap, triangle, claves, bass drum, ride cymbal, hi-hat, snare drum, 2 congas
Web: *score sample, audio recording*

If you're looking for an engaging Halloween percussion ensemble piece, look no further! "Awake in the Night" is an atmospheric work appropriate for intermediate-level performers that would work well as a spooky piece for a professional pops concert. The vibraphone and marimba parts require four-mallet technique, and each mallet part incorporates scales, arpeggios, and double stops. Therefore, along with its programmatic considerations, "Awake in the Night" is useful from a pedagogical standpoint. The non-mallet and chimes parts are less challenging than the others, further adding to the pedagogical benefit by making the piece accessible to ensembles with varying experience levels. The non-pitched percussion parts, although relatively simple, require the performers to navigate multiple instruments and keep a solid groove.

With its driving energy, "Awake in the Night" is reminiscent of 1970s horror movie soundtracks by Goblin. The melodic material is in G minor and consists of simple figures subjected to imitation and variation. The publication is clearly and professionally laid out, although I am curious about a couple of things. One is that pedaling in the vibraphone is clearly indicated at the beginning of the piece, but disappears after the first eight

measures. Perhaps the slur markings are meant to indicate pedaling? Furthermore, marimba and xylophone rolls are indicated with a "Z" in the score, a notation I have seen used almost exclusively to designate multiple-bounce rolls in snare drum music. Standard slash notation, however, is used in the individual parts. These questions by no means detract from the quality of the piece, and I certainly still recommend it!

—Joseph Van Hassel

Bolero **V**
Richard Trythall
$40.00
Media Press Music
Instrumentation (4 players): tom-toms, bongos, woodblocks, tambourines, concert bass drum, pedal bass drums, bell with clapper

Originally written in 1979, "Bolero" by Richard Trythall is based on the bolero dance and tradition of Spain. Percussionists will immediately recognize the source material from the famous snare drum excerpt that is used as the main theme for this work.

Utilizing four players, each with large multi-percussion setups, the piece is meant to be performed as an extremely gradual accelerando. As with the dynamics of the snare drum excerpt, the piece starts exceedingly quiet, in this case with performers beginning the piece using only their fingers. Trythall's work builds much quicker dynamically, and the dynamic variety and range are one of the strengths of this work. Players' lines are constantly being interwoven with each other using dynamic contrast to allow one line to stand out over another before disappearing to let another line come into the foreground.

While the dominant texture of the work is membranophones, the composer augments this with smart use of different types of drums (most notably bongos against toms and bass drum), as well as woodblocks, tambourines, and the use of stick clicks. All these lead to just enough variety that the piece rarely feels like it's too much of one color over its entire 12 minutes. The combination of dynamic contract, textural shifts, and metric ambiguity keep the piece fresh throughout.

Performers will certainly be challenged by the polymetric nature of the work. While in the first seven bars the meter changes every measure, it is when the composer begins layering different meters over one another that performers will be challenged to stay together. Mature players with a solid sense of time as well as dynamic contrast will find this to be a challenging and engaging piece, working well on a university-level percussion ensemble concert or recital.

—Brian Nozny

Ghanaian Sunset **II**
Thomas Roblee
$15.00
Per-Mus Publications
Instrumentation (4 players): two 4-octave marimbas, kpanlogo, axatse, djembe, wind chimes, splash cymbal, gankogui
Web: *video recording*

"Ghanaian Sunset" was commissioned by the Tuscarawas Philharmonic (Ohio) and is inspired by the traditional music of Ghana. According to the composer, "It is built from melodic quotes of northwest Ghanaian gyil music and supported by original material throughout." Instrumentation is adaptable to accommodate availability. For example, Thomas Roblee suggests the kpanlogo part can be played on a low conga or low-pitched drum, the axatse part on a shaker (preferably with beads on the outside), the djembe part on a higher-pitched conga, and gangkogui part on agogo bells or two cowbells. Seeing possible substitutions listed in a score serves as an invitation to those without traditional instruments to play the piece.

The piece begins with a driving tempo and introduction to the call., followed by the first melody without much rhythmic accompaniment. The middle section is all drums, with no melody, in the style of music from southern Ghana. The last section introduces another melody and ends with a final call. The rhythms throughout are primarily made up of eighth notes but include some sixteenth-note passages. The melodic material is built on a G pentatonic scale.

I recommend this piece for a beginning percussion ensemble or a developing percussion ensemble looking to explore Ghanaian music. I am appreciative of an addition to the repertoire for early percussion ensemble that includes a snapshot of a non-Western, global music tradition.

—Justin Bunting

Grinder's Switch **III**
David England
$45.00
Row-Loff Productions
Instrumentation (11–13 players): bells, xylophone, two vibraphones, two 4-octave marimbas, 4 timpani, snare drum, bass drum, hi-hat, splash cymbal, floor tom, 2 brake drums, sizzle cymbal, China cymbal, washboard, desk bell, flexatone, spoons, other small accessory instruments
Web: *score sample, audio and video recordings*

As a resident of central Tennessee, David England is surrounded by country and American roots musical traditions. "Grinder's Switch" pays homage to these influences with a steady upbeat rhythmic groove, blues-based melodic motives, and the inclusion of such traditional folk percussion instruments as spoons and a washboard. Well-suited for an advanced middle school ensemble or beginning high school group, England's ensemble composition is a great concert opener or closer with enjoyable moments for audiences and performers.

Parts for "Grinder's Switch" range in difficulty, allowing for ensembles with varying levels of abilities to play this work with relative ease. For example, the timpani part changes pitches on one drum a few times and has featured solo moments with crossovers and quicker triplets, requiring an experienced performer. All the keyboard parts use only two mallets; however, certain parts are written with slightly more difficult and featured lines, like the xylophone and second vibraphone part. The melodies rely heavily on the B-flat major blues scale, creating idiomatic and interesting passages that fit the overarching theme. England even includes a video tutorial on the publisher's website that teaches all required techniques for playing the spoons along with detailed notation in the score and parts for clarity.

Named after a small town in Hickman County, "Grinder's Switch" plays on the town's history as well as the musical traditions found in many rural areas of Tennessee. England effectively incorporates these themes within a large percussion ensemble through creative instrument choices, catchy melodies, and driving eighth-note rhythms.

At under three minutes, this entertaining piece will provide some fun variety within your percussion ensemble program and allow students to experience a broader use of percussion beyond the classical approach.

—Matthew Geiger

Mixed Realities **III–IV**
James Campbell
$40.00
Row-Loff Productions
Instrumentation (7 players): bells, xylophone, vibraphone, 4-octave marimba, 4 timpani, 4 concert toms, impact bass drum, triangle, hi-hat, splash cymbal, China cymbal, tambourine, 2 woodblocks
Web: *score sample, audio recording*

What a fun and jammin' new piece for percussion ensemble! This work for seven players has a performance time of slightly over four minutes and a classic instrumentation that makes it accessible to many programs.

The piece begins with a burst of energy from the hi-hat and concert toms to set a solid and confident groove that will carry throughout. The timpani serves as the bass player with the four keyboard voices providing the melody. A nice feature for the keyboards in this piece is that it's not just four players on the same melodic material. The melody is broken up between voices in different ways throughout the piece to provide different textures.

After the introduction and presentation of the main melody comes a bombastic section in alternating measures of three and four that allow the timpani and tom players their moment in the spotlight. The keyboard players get to show off their skill at syncopation. Other than a return to the previous material, there's a brief texture change where players get to explore various effects: keyboard glisses, triangle muffling, dead strokes, playing on drum rims, and striking mallet shafts together.

Overall, this piece allows percussion students to learn a great deal about extended techniques and get different sounds from their instruments and implements. The arrangement makes it easy for players to groove together and still have their moments to shine. If you're looking for a piece to challenge high school students and increase their skills, this is the one.

—Ben Cantrell

The Ol' Switcheroo **II**
Drew Morris
$35.00
Row-Loff Productions
Instrumentation (9 players): bells, xylophone, vibraphone, marimba, 4 timpani, snare drum, bass drum, 2 toms, cabasa, ride cymbal, splash cymbal, hi-hat
Web: *score sample, audio recording*

Written for middle school percussion ensemble, "The Ol' Switcheroo" is a band director's dream! This short work was commissioned with the goal of allowing every player to use both a mallet and battery percussion instrument. Not only does Drew Morris manage this adeptly through the not so subtle "Switch!" markings in the score, it also has been done in a way that is natural, easy to execute, and a feature of the piece.

The pop and hip-hop inspired textures are fun and will lay well across the instrument for young players. While the main melodic motive outlines the A harmonic-minor scale, Morris provides

exercises to support the teacher and students in making this key area accessible. It should be noted that a few of the parts require comfort with slight syncopation and the ability to execute open five-stroke rolls. Additionally, the timpani part has optional pedaling in measure 41; this is solely an effect. This moment is a solo and can serve as a grand pause while some of the performers change instruments and the timpanist retunes to the original pitch.

"The Ol' Switcheroo" is expertly written with the band director and middle school percussionist in mind. It will be as fun for an audience as it will be for the performers and would make a great introduction to percussion chamber music. I highly recommend this piece not only for middle school percussion ensemble, but for the university methods class as a tool for familiarizing secondary methods students with the percussion family within a musical context.

—Quintin Mallette

Oracle **III**
Ray Flores
$40.00
Row-Loff Productions
Instrumentation (8 players): xylophone, vibraphone, 2 marimbas (at least one 4.5-octave), 4 timpani, 4 wine glasses, 4 shakers, frame drum, small bongo, 2 toms, small bass drum, gong, other small accessory instruments
Web: *score sample, audio recording*

For a short, groove-infused ensemble piece, check out Ray Flores' new work for keyboards and percussion. "Oracle" is an octet grounded by a rhythm section of frame drum, timpani, and toms, while mallet keyboard instruments provide the melodic motion and interest once the groove is established. Atypical harmonies, chromatic motion, and leaping melodic lines fuel the slow burn of this piece as it builds to its climax and then fades back away to the finale.

The piece begins with sustaining wine glass pitches — helping to set an ominous tone — followed by the entrance of a frame drum that continues through most of the piece. The frame drum part is written using traditional hand drumming tones (doum, tek, and ka), but does not include any additional information on performance techniques, leaving that open for the director to decide. This part could also be played using a multiple-percussion setup if performers are not comfortable with these techniques.

The frame drum competes with timpani and separate multiple-percussion parts, so amplification or doubling might be necessary for the parts to be balanced. Three of the four mallet parts are similar in difficulty, often employing simple eighth-note rhythms with occasional triplets passing between the parts in a call-and-response style. The fourth mallet part consists of mostly octave whole-note rolls or longer in bass clef. A successful performance would include players with similar ability levels, although the mallet parts are much less rhythmically involved than the percussion or timpani parts.

Flores' eerie ensemble is written in ternary form, pillared on the outside by slower moving melodic lines with an interlocking syncopated drumming feature in the middle. Although based around repeating patterns, the difficulty in connecting hocketing rhythms would require talented performers but could still be done by a high school ensemble or eager middle school group with capable percussionists. "Oracle" combines a darker sound palette with chromaticism and interlocking drumming that results in an engaging musical journey from beginning to end.

—Matthew Geiger

The Wild Horseman **II**
Robert Schumann
Arr. Jane Lamb
$10.00
Per-Mus Publications
Instrumentation (4 players): xylophone, two 4-octave marimbas, 2 temple blocks or woodblocks

Originally written for piano from Schumann's *Album for the Young*, this one-minute piece is arranged for beginning percussionists and utilizes single-line melodic phrases, eighth-note rhythms, and a handful of dynamic shifts. All the mallet parts can be played with two mallets, and the temple block part provides a nice "galloping" rhythm that complements the mallet parts while providing a bit of equine imagery.

From a pedagogical standpoint, the mallet parts each have lines of continuous eighth notes and switch to complementary rhythms when they take on the role of harmony, which provides equal challenges to all the mallet players. At the same time, phrases are repeated, which will help lighten the load, so to speak, when it comes time to start learning some of the melodic twists and turns. The piece is arranged almost identically to the original piano composition, so finding a reference recording should be no problem.

—Joshua D. Smith

Worlds Within **VI**
Dennis Anderson
$30.00
Media Press Music
Instrumentation (2 players): 2 prepared pianos.

There is an age-old question in our profession: is the piano a percussion instrument? Some say "yes" on the basis that hammers strike strings inside the instrument. Others say "no," saying that it belongs in the string family. This piece by Dennis Anderson serves as an exhibit for the percussion argument. Although it is technically a piano duet, the required use of drumsticks, brushes, and mallets on the strings make it suitable for percussionists to perform, as well as trained pianists.

"Worlds Within" is a 12-minute contemporary work for two prepared pianos. Thankfully, Anderson does not go to the lengths of John Cage when preparing pianos for this piece. Here, one piano merely needs some erasers stuck between certain strings to create harmonics, and the other needs six "piano bows" weaved into certain ranges of strings. It also requires several percussion implements to be used. Along with those mentioned above, the players will need triangle beaters, a pocket comb, and a steel guitar slide.

The piece is printed on a 48-page score of graphic notation, each page representing roughly 15 seconds of music. As such, one of the challenges of this work is having help with the page turns, unless the duo intends on flexing their memorization skills.

The first two-thirds of the piece is an exploration of sound possibilities starting within the piano. This exploration gradually moves away from the strings directly to playing clusters of varying sizes and indistinct chords on either white or black keys, as described by the instructions. The penultimate section sees the use of the prepared elements, with one piano reading classic notation in the eraser-muted range of the piano, and the other performer bowing the indicated ranges of their instrument. Interspersed within this softer music are occasional startling strikes of large bamboo sticks and a glass box done within the pianos, creating an eerie resonance to accompany the already-eerie sounds of the altered instruments. The last 90 seconds revisit the use of clusters that dissipate over time. Eventually, only pointillistic tinkles on the high range of each piano are played, which sneak away until nothingness prevails.

This is an interesting work that will be intriguing to see performed. The logistics of the performance, including the possible need of highly trained page-turners, will be one of the most notable challenges of tackling this performance. However, for those looking to scratch that avant-garde itch, "Worlds Within" comes highly recommended.

—Kyle Cherwinski

Yes, We Have No Bananas! **II–III**
Frank Silver and Irving Cahn
Arr. Brian L. Monroe
$25.00
Per-Mus Publications
Instrumentation (5 players): bells, xylophone, 4.3-octave marimba, Remo drum pad, tambourine, 2 cowbells, triangle, bell plate, China cymbal, drum set

Brian L. Monroe's arrangement of "Yes, We Have No Bananas!" is fashioned in the style of Spike Jones, and purposefully features percussion "toys." It was originally composed in 1923 and recorded by many artists including Benny Goodman, Louis Prima, and, of course, Spike Jones.

Monroe does an excellent job keeping the parts simple enough for a middle schooler, while offering enough challenge for 9th or 10th graders. The arrangement stays close to the 1950 Spike Jones recording and offers players a fun, accessible piece that gives the performers a choice of tempo ranging from 110–132 bpm.

I highly recommend this for any young ensemble looking for a quirky, fun piece, while still being a challenge to put together.

—Joe Millea

PERCUSSION DUET COLLECTION

Twenty-One Progressive Duets for Snare Drum and Timpani **II–III**
Greg Holloway
$20.00
Per-Mus Publications
Instrumentation: snare drum, 2 timpani

As a percussion educator, it is always a good day when you find a new resource that can help your students get better at basic fundamentals and rhythms, while simultaneously giving them the opportunity to play together, or have you perform with them comfortably. This collection of duets by Greg Holloway will, indeed, provide a good day.

This progressive set of duets for timpani and snare drum is a great addition to any percussion pedagogue's library. It is almost entirely based on sixteenth-note rhythms, making it perfect for players who have only had sticks in their hands

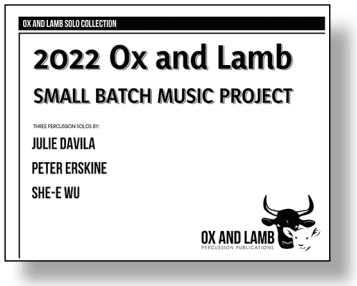
for a few months. It is also a great opportunity to put basic snare techniques into a musical context, such as flams, ruffs, and buzz rolls. Likewise, it is a way to introduce ear training and perfect intervals, since the timpani are tuned at either a fourth or a fifth for each duet.

The greatest challenge is rhythmic interplay between the players. It starts simple, with the most sophisticated rhythms being played in perfect unison, and the interplay being tame. By the end of the collection, the interplay is much more intricate and the implementation of triplets adds complexity to the rhythmic language used. The pace of increasing difficulty between the first and last duet is gradual and approachable. The players do need to look out for time-signature changes, the occasional triplet, syncopated rhythms, and sudden dynamic changes, but this is a great introductory resource for ensemble playing.

The only criticism is in the editing of the book. There are a few places where characters overlap, such as the grace-note of a flam overlaying an eighth-note rest, or the stem of a sixteenth note covering up a barline, but these will only cause a moment of confusion. There is also an issue of notational nomenclature. The "x" notehead is used for both the rimshot and the "play rim or woodblock" instruction. Even though these two techniques are never used in the same solo at the same time, it is best that there be a different symbol for each of these sounds when they are found within the same publication. This will add a level of consistency to an already strong collection of pieces.

This is a must-have for any middle-school band program or percussion instructor. The lessons that can be taught through the implementation of basic skills and collaborative playing are essential for musicians at any level of ability. Plus, this is a great way to introduce timpani earlier than usual.

—Kyle Cherwinski



SNARE DRUM SOLO

Phenotype Variations V
Julie Davila
$45.00 (for entire collection)
Ox and Lamb Percussion Publications
Web: *score sample*

This solo is available only through the OxandLambMusic.com website, and is part of a package that contains three solos: this five-minute unaccompanied concert snare drum solo by Julie Davila, a drum set solo from Peter Erskine, and a multiple percussion solo by She-e Wu.

Davila's snare drum solo is titled "Phenotype Variations" in reference to a term that means "observable characteristic attributes of individual organisms, including their morphology, behavior and other traits." Her "phenotype motif" has a genetic rhythmic component, but it can also vary (or morph) slightly with subtle variations of duple to triple, shifting rhythmically by motifs that shift through different placement within a bar and create a separate set of variations through various time signatures and tempos — all creating a diverse set of variations.

This 149-measure composition starts in 6/4 and shifts at measure 16 to 5/4 before moving to cut-time at measure 41. At measure 74, a 7/8 metric shift seems to be the climactic section of this solo before the closing section at measure 127 brings this solo to its logical end. The piece uses creative and challenging dynamics spiced with some special effects — such as cross-stick rimshots — striking area shifts, and striking on the rims. This could be an effective festival solo or an unusual audition snare drum solo.

—Jim Lambert

TIMPANI SOLO

Two Voices III
Brad Alexander
$8.00
Per-Mus Publications
Instrumentation: 4 timpani

As the title implies, "Two Voices" presents an interesting take on texture in a timpani solo, challenging the player to sustain two different musical lines using just four drums and four pitches. A majority of the piece calls for a felt mallet in the left hand and a wooden stick in the right, helping the performer clearly define the two titular voices. Brad Alexander notates different stem directions for each hand during these sections.

When played at the written tempo of quarter note = 144, "Two Voices" is just under two minutes long. While there are changing and asymmetric meters, the rhythmic material is simple and there are no tuning changes. The required tuning is a B half-diminished 7th chord (B, D, F, A, from low to high), but the composer suggests that the performer may tune the drums lower, based on available range, as long as the half-diminished 7th chord is preserved.

A majority of this work's difficulty comes from the voice crossing between the two hands. While holding a different type of mallet in each hand, the player must often play with arms crossed for extended periods in order to use the proper implement on each pitch. Despite this, the piece is idiomatic, with the crossovers and numerous stick changes all feeling comfortable and fluid with some practice.

—Marco Schirripa

MULTIPLE PERCUSSION SOLO

Przepasc (The Precipice) V
Dennis Anderson
$25.00
Media Press Music
Instrumentation: 4 timpani, 5 cowbells, suspended cymbal, temple blocks, tam-tam, predator call, 2 suspended cymbals, 3 crystal goblets

"Przepac," or "The Precipice," is a multiple-percussion work that explores the sonic capabilities of the percussion world. Although the copyright is 2020, the title page has a date of 1978. This piece would fall into that time period quite nicely. The inspiration for the work comes from a trip the composer took to the Badlands National Forest. While there he was in awe of what the world can do over time, and the "utter insignificance of mankind." Each movement explores these thoughts through aleatoric means.

Each movement consists of a series of events on each page that are outlined with colored boxes. The color of each box represents the tempo at which each event is to be played. Suggested durations are given for each event, and while instructions are given on how it should be played, in most instances the number of times and order of the events are left up to the performer.

The first movement, "In the Beginning We Were Only Stones," utilizes four timpani, cymbals, temple blocks, tam-tam, and suspended cowbells, as well as a predator call. An eagle or hawk call is suggested, and it explicitly states, "NOT a duck call." The second movement, "…And Time…," uses timpani, inverted cymbals on the timpani, cowbells, and three crystal goblets mounted about a half inch above the timpani heads. The goblets are to be bowed. Pitch bends are indicated on the timpani part for the goblets and cymbals. The final movement, "Afterward, The Sun," uses only the four timpani. The composer indicates that each movement may be performed alone as a standalone piece, or they may all be played together.

This work would challenge even the best performers with its 20th-century techniques and rhythmic complexities. The performer needs to be very adept at these types of works, and needs to understand aleatoric music and performance practice. This would go great on a graduate recital or professional concert. Anderson expertly explores the sonic capabilities of percussion, and it is a joy to see a historic work being brought back into the modern repertoire.

—Josh Armstrong

The Ordinary World III–IV
Steven Medley
$10.00
Media Press Music
Instrumentation: large suspended cymbal, medium suspended cymbal, splash cymbal, China cymbal, hi-hat, low woodblock, high woodblock, cowbell, triangle, bass drum, floor tom, low tom, medium tom, high tom, bongos

Very little information is given about "The Ordinary World" — no program notes or stage diagrams, no recordings, no description. That being said, it is an intriguing piece written as a multi-percussion solo, but it could be played as an extended drum set piece. It would almost certainly have to be played seated, as the score calls for a lot of quick hi-hat work, and though it isn't stated as such, the bass drum could be a kick drum. The notation is clear and easy to read, but the page turns prove a challenge, as the piece is eight pages long on a large score with fast and dense notes and very few rests.

The rhythm moves between duple and triple figures with syncopated accents, which makes the straightforward 4/4 time signature more funky. The combination of metal and membrane timbres makes the piece groovy and layered and reminiscent of William Kraft. The performer needs to have well-developed pedal skills, as the piece calls for complex hi-hat footwork. The player also

needs to be able to move around a setup fluidly with control. While the tempo is not fast, the rhythms are, and they move rapidly between loud and soft dynamic levels.

"The Ordinary World" would be an interesting addition to a recital, especially for someone wanting to learn a piece halfway between a traditional multi-percussion solo and a drum set solo.

—Marilyn K. Clark Silva

MIXED INSTRUMENTATION

4 Movements **VI**
Bart Vanderbeke
$29.88
Norsk Musikforlag
Instrumentation (2 players): 2 toms, bongos, 3 woodblocks, Chinese cymbal, pedal bass drum, whistle, tam tam, piano
Web: *score sample*

Bart Vanderbeke's "4 Movements" is a welcome addition to that corner of the multiple-percussion repertoire that, although largely comprising the parts of a drum set, is not about the drum set, but rather focuses on melodic development and compositional sophistication without an overreliance on flashy, rudiment-based licks. This piece is very much in the tradition of William Kraft's "English Suite" and "French Suite," only with an eye towards modern sensibilities rather than Baroque ones. Even though the piano part is substantial, the publisher lists this piece as a multi-percussion solo rather than a duet. I would argue that (aside from having four movements instead of three) it should actually be considered a multi-percussion sonata, in that the percussion part clearly presents the bulk of the narrative material whenever it is present.

One thing that will immediately stand out to percussionists is the composer's technical approach: he calls for the use of four rubber mallets throughout the work, further emphasizing his melodic approach and distancing himself from the drum set traditions that spawned his instrumentation. For ease of learning, the composer has included a score and two versions of the percussion part: one that is notated traditionally (for use in performance) and one that uses broken beaming to indicate stickings and hand-to-hand responsibility (which is a little harder to read, but answers many questions that are sure to arise in the learning phase).

The percussion parts are certainly challenging from a four-mallet standpoint, let alone from that of a multi-percussion or chamber ensemble. The four movements are clearly products of the COVID-19 lockdown era, with the third titled "CoronA" and the fourth titled "GEorGE FloyD (8´46´´)". One can easily imagine the composer, locked in his home during the early months of the pandemic, breaking his drum set apart and making music with what instruments happened to be available. However, his exploration of the four-mallet multiple-percussion idiom actually predates the pandemic, with YouTube videos of similar works published in 2019.

This collection is poignant, effective, and engaging from start to finish, whether or not one cares about the novelty of four-mallet multiple percussion techniques. I would happily recommend it to anyone looking for a multiple-percussion "sonata" with piano, especially those looking for additional avenues to deploy their hard-earned four-mallet chops.

—Brian Graiser

Sage King Goes Hollywood **III+**
Dennis Anderson
$18.00
Media Press Music
Instrumentation (2 players): clarinet, vibraphone

This piece is an excursion into the realm of controlled improvisation, coming out of the "free" jazz experience as well as combining elements of "West Coast" minimalism. Written in the 1970s, the work explores ostinati that very gradually and subliminally change into other ostinati that are written in "cells" or boxes across several sheets of music. The performers have a very liberal set of instructions that allows them to pick and choose their own levels of duration, repeats, and volume. This freedom results in a work that can last anywhere between 15 minutes and 30 minutes. While the actual notes are not challenging, it will take musical maturity to present a performance that treats the composer's wishes with care and responsibility.

Throughout the piece, the clarinet and vibraphone share an equal responsibility of delivering the melodic material in a way that leads to moments of blending, balancing, and complement. The composer wrote the notes with a generous dose of energy, as each instrument performs eighth notes at half-note = 90, lending to forward momentum that is sure to excite performers and audience members. Additionally, each instrument is instructed, at times, to perform at slightly different tempi, which further congests the mixing of the voices. The resultant combinations of each instrument's melodic cells are sure to elicit a variety of responses, as the notes utilized rely heavily on minor 2nds, major 2nds, and cluster chords.

From a sonic perspective, the blending of these two instrument voices playing notes that are so closely related to each other, at such a rapid and relentless pace, will surely fill a performance hall with harmonic combinations that challenge everyone within earshot.

—Joshua D. Smith

Shadow Fantasy **V**
Dennis Anderson
$18.00
Media Press Music
Instrumentation (2 players): harp, chimes, vibraphone, glockenspiel, crotales

This is a complex work for the unique combination of harp and metallic keyboard percussion. Dennis Anderson does a good job of explaining extended techniques (and its respective notation) in the performance notes. The score is a mix of traditional and graphic notation. The graphic notation, like the performance notes, is well-explained. The percussionist is required to interpret two, three, or four staves at once to read notes across changing instruments.

Musically, there are measures with changing time signatures, or no time signatures, populated by various iterations of triplets, quintuplets, sextuplets, and septuplets (including dots and thirty-second notes within these figures). For much of the first half, the two parts line up metrically, so rhythmic precision is paramount. For parts of the second half, graphic notation is more present, including melodic cells in a circle. The players are instructed to start at any cell in the circle and play them all in a clockwise manner followed by counter-clockwise from a different starting point. There are also aleatoric indications, for example, at the end of the piece that dictate how many seconds to spend on each measure.

I recommend this piece for a graduate school or professional recital. It would be a large undertaking to work out the musical, logistical, and timbral requirements put forth by the composer. Additionally, in our digital world, it is surprising that there is not any material (audio clip, video performance, etc.) to be found online. However, the unique combination of instruments and musical possibilities make this piece worthwhile.

—Justin Bunting

Sidereal Horizon Ghost
Dennis Anderson
$20.00
Media Press Music
Instrumentation (22 players): 3 trumpets, 3 trombones, 9 French horns, 2 baritones, high-octave crotales, 10 triangles, 8 cowbells, 2 toms, 4 woodblocks, 2 cymbals, large sleighbells, small sleighbells, police whistle, glass chimes, tam-tam, maracas

Written in 1984, this is a wonderful expression of the composer's skills in reaching performers and audiences. It is a graphic score, written for combined brass and percussion ensembles. All players read off of the score, about which the composer states: "This is a transposed score. No performance parts. Performers play from the full score."

The timing of this work is 7½ minutes, with musical events indicated as the timing progresses. There are clock/timing-based cues, so events occur at the specified timings. While many percussion instruments are called for, an included setup diagram is very helpful. Also included is specific notation that has a key at the front of the score, which follows similar patterns in other compositions by Dennis Anderson.

I especially appreciate the thought that went into each part of this score: it is not difficult

to understand, and is precise in its many indications, whether they be musical, graphic, or written instructions. The composer clearly has a working knowledge of percussion instruments by the items he asks for, including mallet choice (wood mallets, yarn, light triangle beater, etc.). He has a specific product in mind, and his clear and defined notation indicates his desired sounds to the performers, so there are few questions about the sound that is desired and intended.

This is a great piece for a college or professional ensemble, as it requires quite a few personnel and instruments. Additionally, the more-advanced music reading that is required lends itself to a more experienced ensemble.

—Cassie Bunting

OPEN INSTRUMENTATION

A Maze (With Grace) **VI**
Thomas Albert
$20.00
Media Press Music
Instrumentation: 6+ performers, open instrumentation
Web: *score sample, audio recording*

"A Maze (With Grace)" is as much a game for the performers as it is a listening experience for the audience. The score (which owes more than a little to Riley's "In C") is made up of several musical cells graphically linked to form the musical pathways of, well, a maze, which must be navigated by each member of the ensemble at his or her own pace and sequence. Each of the musical cells contains a sequence of grace notes leading into a single sustained arrival, and therefore the piece will invariably sound like an improvisation. However, other than the performers' choice of pathway through the maze, the piece is not at all improvised, and the composer's consistent use of the core harmonic and melodic structures of "Amazing Grace" keep the otherwise "free" piece from veering too far away from the original hymn's vocabulary.

My suspicion is that, unless furnished with a copy of the score, the audience will have no idea what kind of mental gymnastics the performers are executing, but thanks to the composer's commitment to the original hymn, the adventurous-yet-accessible-enough sonic result will be enjoyed. Meanwhile, the performers themselves are sure to enjoy the challenge of navigating the score from all directions. This piece would be an especially good fit for a college ensemble in need of a piece that allows them to begin exploring aleatory and graphic notation, but by comfortable degrees.

—Brian Graiser

DRUM SET

Forest 4 the 3s **V**
Peter Erskine
$45.00 (for entire collection)
Ox and Lamb Percussion Publications
Instrumentation: hi-hat, ride cymbal, snare drum, high tom-tom, floor tom, pedal bass drum
Web: *score sample, video recording*

Published as part of the Ox and Lamb "Small Batch Music Project" that also includes solos by Julie Davila and She-e Wu, Peter Erskine's "Forest 4 the 3s" is a well-crafted, fun, and engaging drum set solo that embraces the traditional stylistic sound of the drum set while creating a well-developed solo that will challenge performers on a number of levels.

Upon listening to the piece, you almost get a sense of it being an improvised solo that was then transcribed. That is not in any way meant as an insult. The fact is that Erskine shows his ability to improvise around a theme and continue to organically develop that material the way only a master improviser can, spinning simple ideas into a six-minute solo that contains all the development of a traditionally composed work.

Utilizing the number three as the main musical idea, the piece, written entirely in 3/4, starts in a waltz-like groove between the kick drum, snare drum rim-knocks, and the hi-hat, which slowly develops around the simple idea of the first measure. Over time this theme gets embellished before finally moving the hands to the snare and exploring more linear ideas. Each section of the piece develops its own ideas while feeling connected to the original material.

One of the strengths of this solo is that instead of feeling like a multi-percussion solo that just happens to be played on a drum set, this work plays around with styles directly associated with the drum set such as funk, second-line, and waltz. All of these styles feel related to each other as the material develops through the solo.

Performers will be challenged by the hand-and-foot combinations that are required at times, though the greatest challenge is in the last part of the piece where players are challenged to play polyrhythms between their hands and feet. Thankfully, the composer has provided some exercises to help develop this skill as well as some of the hand-foot combinations seen in the piece.

"Forest 4 the 3s" is a great solo that embraces the sound and style of the drum set and provides performers with a number of technical and musical challenges. This piece would work in a variety of settings, from a university recital to even a drum set solo for collegiate job interviews.

—Brian Nozny

RECORDINGS

Finding Light
Jeff Denson, Romain Pilon, and Brian Blade
Ridgeway Records

This trio recorded their first album and toured together prior to the pandemic. It would be two more years until they would meet again. During their downtime, bassist Jeff Denson and guitarist Romain Pilon composed independently of one another. When they reunited, they realized that there were common themes in their compositions. One recurring theme was the search for a light at the end of the tunnel. Another theme was a love for their four-legged friends!

The opening track, "Daily Jubilee of Dancing Herbie D.," is a funky piece in 5/4 with an underlying New Orleans vibe. It has a cheerful, bouncing feel, inspired by Denson's miniature schnauzer. From the downbeat, the chemistry between these three musicians is undeniable. Drummer Brian Blade plays in a way that inspires Denson and Pilon to perform at an even higher level. This spark in Blade's playing is often affectionately referred to as the "Blade factor."

The next track, "Finding Light," is meant to capture a feeling of hope in the midst of troubling times. It features a beautiful bass solo followed by a stirring guitar solo. "This Way Cooky" is a funk tune that was inspired by Pilon's dog. Denson and Blade blend exceptionally well here, forming the foundation for Pilon to flawlessly execute his riffs and solos. "A Moment in Time" is a haunting piece based on the uncertainty experienced during the first few weeks of the pandemic.

Denson's "Wishing Well," which was previously released as a vocal tune, is reworked here as an instrumental. He also composed "The Tipster," a brisk swing tune based on his mother's cat. The last three tunes on the album were written by Pilon. "Terre" is separated into two tracks: a solo intro by Denson, and the heart of the tune. The composition was inspired by the landscape of the Brittany Coast. "Espoir" is a piece about hope (the French work "espoir" literally means "hope"). "Sixto" was inspired by Sixto Rodriguez, the musician featured in the documentary *Searching for Sugar Man*.

Denson, Pilon, and Blade waited a long time to meet again. The joy of their reunion is indisputable. Blade's spark is evident throughout the album. The "Blade factor" does not just affect his fellow musicians; it is also known to put a smile on the listener's face.

—Jeff W. Johnson

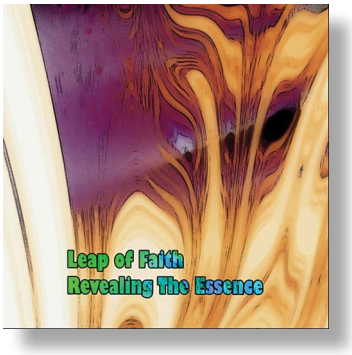
Main Sequence
Sub-Unit No. 1
Evil Clown

Sub-Unit No. 1 is a duo comprised of the artist known as PEK and percussionist Michael Knoblach. PEK is featured on a variety of clarinets and saxophones. He also performs on contrabassoon, guanzi, sheng, and melodica, as well as a number of percussion instruments, such as woodblocks, rattles, balafon, glockenspiel, wind siren, and orchestral chimes.

Knoblach performs on a wide variety of percussion instruments, including a frame drum, tambourine, gong, sistrum, temple blocks, and rattles. He also creates percussion instruments from unusual items, such as carpet protectors, antique sheep shears, abacuses, a basket of rocks, and a billiards triangle. Knoblach obtains pleasing sounds from the most unconventional of instruments.

The music is very avant-garde, with PEK and Knoblach pushing many boundaries. This music is not centered around a static pulse or catchy melody. Instead, it is a sonic experience. The two musicians have a non-verbal conversation, listening to (and complementing) each other. They are not afraid to leave space in the music, using silence as if it is its own instrument. Sub-Unit No.1 takes the listener on a meditative, yet captivating, musical journey.

—Jeff W. Johnson



Revealing the Essence
Leap of Faith
Evil Clown

This ensemble features the artist PEK and Michael Knoblach from Sub-Unit No. 1 (see previous review). They are joined by Glynis Lomon on cello, aquasonic, and vocals. Vance Provey adds trumpet, flugelhorn, and additional percussion (Tibetan bowls, glockenspiel, and crotales).

PEK performs on a variety of clarinets and saxophones, as well as a medieval horn, goat horn, melodica, and ocarina. He also adds percussion, playing cowbells, almglocken, woodblocks, temple blocks, chimes, xylophone, balafon, and crotales. Knoblach uses a wide variety of conventional and unconventional percussion instruments, including a frame drum, shakers, rattles, water-filled mason jars, sandpaper blocks, Tibetan bowls, a slinky, tree ornaments, and a carpet protector.

The album has only one track, which is over an hour in length. The instrumentalists listen to one another, complementing each other without adding clutter to the musical dialogue. Each musician is prominently featured. The music is improvisational and free, allowing for a unique listener experience.

—Jeff W. Johnson

"…The Ayes Have It" – Vol. II
Randy Gloss
Orenda Records

Randy Gloss's album *"…The Ayes Have It" – Vol. II* is a hand drum world tour exploring modern applications for everything from pandeiro to riq, from congas to aFrame (an electro-organic frame drum). Each piece is thoughtfully written and performed and has a specific and personal meaning and origin for the composer. The album blends acoustic instruments with electronic ones, traditional playing techniques with modern timbres.

The tracks are at times improvisatory and at other times carefully composed. The album serves as a consumable gateway to these instruments for new listeners. Even the drum set solo, "A Little Change in the Pocket Blues," includes a recited tabla *theka* in the second half. The influence of traditional Middle Eastern rhythms flows throughout the album, moving alongside the influence of various modern musical styles and the inspiration of other musicians.

The use of various metallic instruments and extended techniques gives a cinematic flavor to many of the tracks. Constantly fluctuating and complex rhythms and meters make the pieces groovy but unpredictable. Track to track, the listener never knows what soundscape will be presented next.

Existing somewhere between ambient music, danceable rhythms, and the avant-garde, "…The Ayes Have It" is worth the listen for anyone who loves rhythm, is fascinated by the capabilities of drums, or simply loves music that is crafted with both love and talent.

—Marilyn K. Clark Silva

The Complete Columbia Recordings
Steve Smith and Vital Information
Wounded Bird Records

Wounded Bird Records has re-released the first four albums by legendary jazz-rock/fusion band Vital Information and world-class drummer Steve Smith. The recordings were re-mastered for this release and give the listener a clear presentation of the group's evolution from 1983 to 1988. Smith is joined on these albums by heavyweight players Tim Landers, David Wilczewski, Mike Stern, Dean Brown, Barry Finnerty, Frank Gambale, Andy Narell, Tom Coster, Jay Oliver, Lenny Castro, Mike Fisher, and Armando Peraza. While rooted in the jazz-rock/fushion style, each album features specific stylistic combinations and nuances that capture the development of a band in a constant state of growth and expansion.

The band's self-titled album, *Vital Information*, was released in 1983. Even early in their career, the diversity of styles is immediately noticeable. This is heard in with the deep-pocket, slow funk tune "Looks Bad Feels Good," the experimental swing track "V.G.," and a nod to their Massachusetts roots in "Stoughton to Stockholm Samba," which alternates between Latin and fusion styles.

Orion (1984) is more keyboard/synthesizer-driven. The opening track, "Future Primitive," consists of unison guitar and keyboard licks that characterize much of the album and 1980s fusion style. The same is true with the guitar-heavy title track, "Orion." However, not to be placed in a box, the band ventures into other styles, as heard on the swing, R&B-influenced track "Blade/Blues to Bappe."

As one might imagine from the title, *Global Beat* (1986) features the band's use of non-Western instruments and styles. Of note are "Island Holiday," featuring the steel pan stylings of Andy Narell, and the reggae-influenced "Johnny Cat." In addition, "Jave and a Nail" and "Global Beat" are entirely drums and percussion.

Fiafiaga (Celebration) from 1988 showcases both Western and non-Western influences, as heard on the African-influenced "Babaluwaiye" and the tightly arranged '80s-style rock tracks "Sunday Afternoon" and "Please Don't Feel Bad."

Steve Smith and Vital Information's music is truly a celebration of multiple styles and musical influences being able to coexist, and this collection is a testament to their curiosity, sense of experimentation, and world-class musicianship.

—Jason Baker

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Leedy Broadway Standard Snare Drum

Gift of William MacMillan, Jr., 2007.08.01

Ulysses G. Leedy began making drums and percussion accessories in about 1895, founding his first drum company, the short-lived Leedy-Cooley Manufacturing Company, in about 1897. By 1898 that company was disbanded and U.G. Leedy founded the Leedy Manufacturing Company in Indianapolis, Indiana that same year. After growing to be the largest percussion manufacturing company in the world, it was sold to the G.C. Conn Company in 1929 as the Great Depression hit the United States, and moved to Elkhart, Indiana. Conn continued to operate the business as a sub-division of its company until it was combined with Conn's Ludwig division as Leedy & Ludwig at the close of WW II. Soon after that, the Leedy division was sold to the H.H. Slingerland company, which, by 1960, quietly discontinued use of the Leedy name.

Manufactured between 1930 and 1942, the Broadway Standard snare drum was one of Leedy's top-line instruments, offered in either an all-metal or a solid mahogany shell design. The "Standard" label meant that it utilized the "Standard" design snare strainer, rather than a "Parallel" or "Dual" design. The Standard design was its regular model strainer and described as "the finest strainer of this type…designed on the toggle principle."

This 5x14-inch solid-shell, African mahogany drum has a hand-rubbed, glossy finish, eight self-aligning "X-box" lugs, and double-flanged "floating head" counterhoops. The counterhoops are unusual, as they come from Leedy's "Full-Dress" design drums, which feature an engraved pattern. All of the brass hardware is chromium plated, and 12 strands of silk wire wound snares are mounted to the Standard strainer. The drum has calf heads on both sides, which are likely original to the drum, as the torn batter (top) head is stamped with Leedy's "Superior Hardwhite" diamond logo. Attached to the drum by a green cord is an unusual drum key or tool of unknown design, which fits the square-ended tension rods. The blue, aluminum Leedy badge identifies Elkhart, Indiana as the location of the company when this drum was manufactured.

—*James A. Strain, PAS Historian*

Closeup view of the "Standard" model strainer. Note the adjustable length of the "throw off" arm, the knurled tension knob, the 12 strands of silk wire wound snares, and the engraved counterhoop.

Detail of the batter (top) calfskin head, showing the Leedy logo for its "Superior Hardwhite" drumheads.

Closeup view of the aluminum Leedy badge, used from ca. 1930–1948.

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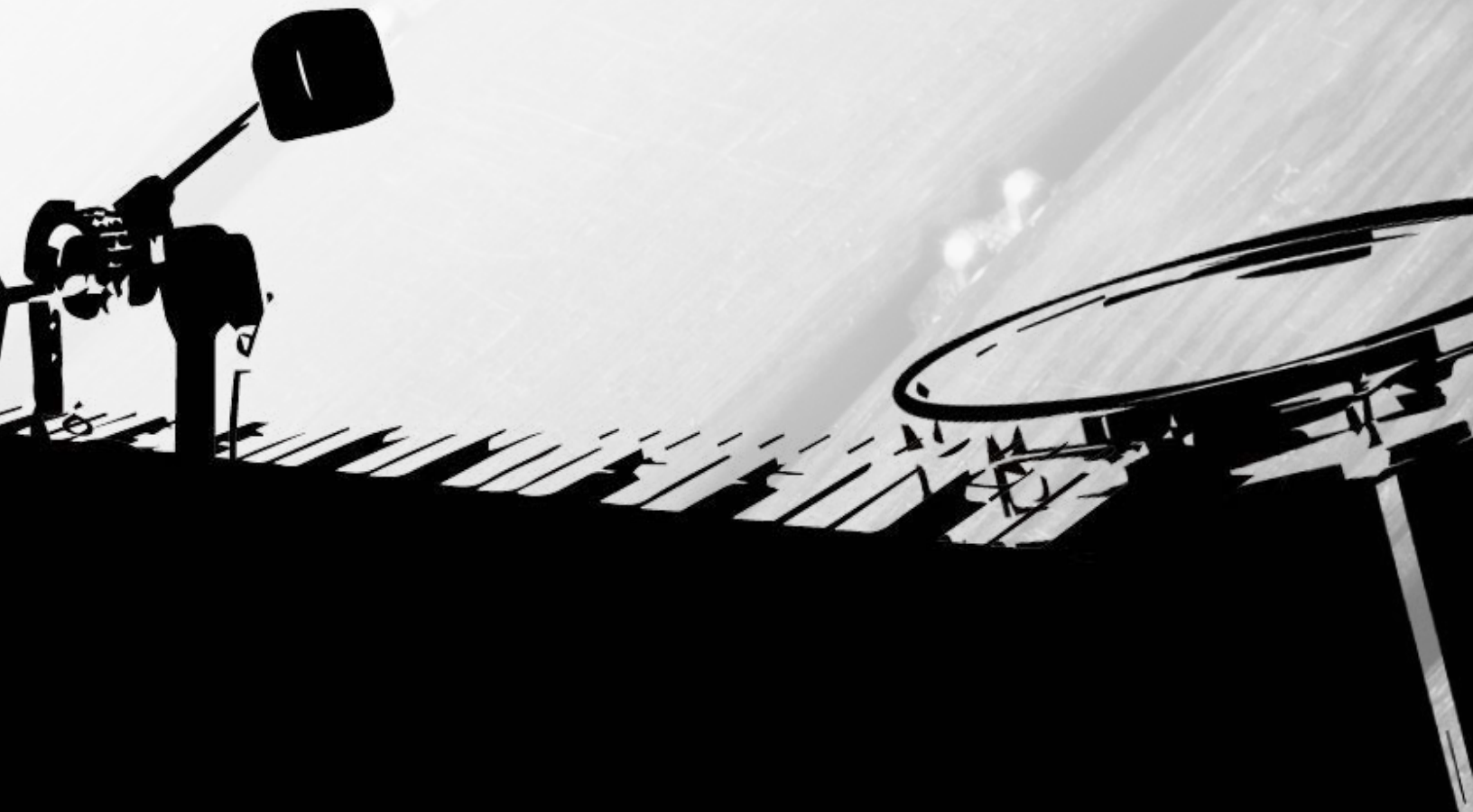

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