

CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

For the Prerecord: Effectiveness of Percussion Solos with Prerecorded Accompaniment

A thesis submitted in partial fulfillment of the requirements

For the degree of Master of Music Performance in Classical Percussion

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Abstract

For the Prerecord: Effectiveness of Percussion Solos with Prerecorded Accompaniment

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Master of Music Performance, Classical Percussion

Solos best provide the classical, modern percussionist the opportunity to develop technique and musicality. For the aspiring soloist, these are essential for their success. For the aspiring ensemble percussionist, the ability to listen and blend with a surrounding body of sound is just as, if not more important. Though these abilities can be mastered through chamber works or accompanied solos, such avenues may not always be available. Solos with prerecorded audio, or solos “with tape,” provide an effective solution to such a problem, as they not only test the soloist’s technical ability and sense of musicality, but also their ability to listen and blend, all within a medium that does not require any form of surrounding ensemble outside of the audio. The benefits of this type of solo will be explored by analyzing passages, performance practices, and setups of Casey Cangelosi’s “Voodoo, Who Do? You Do,” and Chad Floyd’s “Triptych Boom.”

Introduction: Context for the “Tape Solo”

Before any kind of argument for the effectiveness of prerecorded audio accompaniment or analysis of pieces can be made, it is important to differentiate this idea of a “solo with prerecorded audio accompaniment” (or a “solo with tape,” “electronic solo”) from the more expansive “electronic music” genre. At this point in the western canon, there are three main categories of “electronic music:” electro-acoustic, tape music, and computer music.¹ ‘Electro-acoustic music’ refers to the specific electronic medium for which the composition is written, as well as the acoustic (or non-acoustic) sounds electronically manipulated in its production, all of which specifically performed by playing the recording through a speaker. ‘Tape music’ refers to the type of music specifically recorded to a magnetic tape, of which may include electronically manipulated sound. ‘Computer music’ refers to electronic music and its compositional processes moved to the computer, regardless if a physical computer is involved in the final product and performance.

There are expansive studies that explore these concepts in a much more effective manner than I will in this paper, but for the sake of concision, the “solos with electronic accompaniment” analyzed in this paper are examples of “computer music” that are then combined with the performance of a physical, acoustic instrument. While there are a variety of manipulated acoustic instruments, synthesizers, even voices present in the electronic accompaniment, there is no electronic manipulation of the physical instrument played by the soloist, or manipulation of the prerecorded audio by another performer.

¹ Simon Emmerson and Denis Smalley, “Electro-acoustic music,” *Grove Music Online*, 2001, <https://www-oxfordmusiconline-com.libproxy.csun.edu/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000008695>.

The wealth of research and studies done on electronic music is vast, but the same cannot be said for the genre of music with electronic accompaniment. The first example of a performance featuring acoustic instruments and an electronic playback dates back as early as 1953, in which the Louisiana Orchestra commissioned Otto Luening and Vladimir Ussachevsky for a work that would be later titled “Rhapsodic Variations for Tape Recorder and Orchestra.”² The piece was premiered the following year to positive reviews.³ The piece is considered an inverse of the pieces I will be analyzing, in that the orchestra is considered the accompaniment to a solo tape, but it is, nonetheless, the first example of such a composition I could find. John Cage and Karl Stockhausen were among those composers that expanded the practice of using prerecorded sounds with acoustic performance, with “Music Walk”⁴ and “Kontakte,”⁵ respectively (1958 and 1959), but this specific genre of composition was limited, and often featured elaborate, multi-instrumental and electronic setups.

While the existence of this genre as a solos is relatively limited, its effectiveness in music academia is noteworthy. While both live accompaniment and electronic accompaniment are common in solo competitions, according to studies in 1999 and 2001, rerecorded accompaniments in solo competitions prove more effective than a live accompaniment in terms of providing a better experience to both the performer as well as the listener.^{6 7} The metric used to measure this betterment was calculated based on both the scores that the soloist received in the

² Otto Luening and Vladimir Ussachevsky, “CONCRETE MUSIC,” *American Music Teacher* 10, no. 1, 1960;17-16.

³ Otto and Vladimir, “CONCRETE MUSIC,”

⁴ “Music Walk,” *John Cage*, https://johncage.org/pp/John-Cage-Work-Detail.cfm?work_ID=135.

⁵ Richard Toop, “Stockhausen, Karlheinz,” *Grove Music Online*, 2001, <https://www-oxfordmusiconline-com.libproxy.csun.edu/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000026808>.

⁶ Deborah A. Sheldon, Sam Reese, and John Grashel, “The Effects of Live Accompaniment, Intelligent Digital Accompaniment, and No Accompaniment on Musicians’ Performance Quality,” *Journal of Research in Music Education* 47, no. 3, 1999, <https://doi.org/10.2307/3345783>

⁷ Ruth V. Brittin, “Instrumentalists’ Assessment of Solo Performances with Compact Disc, Piano, or No Accompaniment,” *Journal of Music Education* 50, no. 1, 2002; 63-74. <https://doi.org/10.2307/3345693>.

competitions when using a prerecorded accompaniment, as well as the judges' perspectives after the performances. These findings, as well as the growing number of electronic accompaniment-featuring solos on popular online publication sites all illustrate both a demand and an audience for such a genre of music. The growing demand and popularity implies some amount of merit to be had in the learning and performance of solos with electronic accompaniment.

The final topic to address with regards to the merits of works with electronic accompaniment is their inherent lack of human collaboration. The entire point of a student studying to become a professional ensemble player is exactly that: they wish to play in an ensemble. In an ideal world, the collaborative efforts found in scholastic chamber works, duets, and small ensembles provide the skills that such a prospective player would need to be successful in making music with other people. It is in human nature to seek companionship and community. This natural urge is not one easily fulfilled, however, as made most apparent with the recent global pandemic. Music students were left without a conventional music program to attend, having to instead rely upon the limited "Zoom Ensembles" to make music with other students. These circumstances do not even consider the difficulty presented to percussionists whose instruments are often far too large to take them to and from school easily. We percussionists benefited from the click tracks used in many of the Zoom Ensembles, certainly, but it was a small victory when considering that access to bulky, yet essential instruments like timpani, mallet keyboard instruments, or multi-percussion setups was extremely limited.

As stated earlier, the ability to perform a wide variety of earlier works with electronic accompaniment is limited by the complexity and elaborate nature of their setups, often requiring a wide range of drums, microphones, speakers, and computer software. The size and complexity of these setups have, with time, been reduced by composers and performers, alike. With only a

set of headphones, performers can now access these immense soundscapes and setups with relative ease. Electronic accompaniment does not solve the ever-prominent issue of allowing students to learn to play with other people, or to learn the myriad of complications, beauty, and general intricacies an ensemble setting provides, but they do give students the opportunity to simulate that feeling, and prepare themselves for the next ensemble opportunity presented.

What will follow will be two separate analyses: the first, of Chad Floyd's solo arrangement "Triptych Boom" and the second, of Casey Cangelosi's "Voodoo, Who Do? You Do." The analysis for each piece will focus on their physical setups and the demands of the music. Following these analyses will be the general issues many will experience when dealing with both the practice and performance of such pieces, and possible solutions for such issues. Once all analysis has concluded I will give some closing thoughts with regards to this medium of solo music, and its particular importance for the aspiring percussionist.

Chapter 2: “Triptych Boom,” by Chad Floyd

The Setup

“Triptych Boom” currently exists in two forms: the first, as a snare drum solo with percussion trio accompaniment, and the second, as a snare drum solo with electronic accompaniment. For the sake of this paper, and the argument for electronic accompaniment, I will focus only on the setup for the version with electronic accompaniment.

The required equipment is as follows: snare drum, snare drum stand, three music stands (two as trap tables), a pair of conventional snare sticks, a pair of plastic brushes, and a pair of dowel sticks. My setup features the use of a 14x5, aluminum shell Pearl Philharmonic snare drum, a Gibraltar snare stand, a pair of Cooperman Graham C. Johns #1 in persimmon, a pair of Innovative BR2 Medium Plastic Retractable Brushes, a pair of Innovative BZB-2 Bundlz Bamboo, three Manhasset music stands, and two black towels to place the various sticks and brushes upon, with each pair divided on either stand flanking the snare drum. I taped the sheet music to a black posterboard and placed it on a music stand some distance away from my performance area.

Triptych Analysis: Section I

“Triptych Boom” can be divided into five sections, each with their own unique set of challenges and characteristics, and each divided by a similar “stirring” motif. The first section, with snares off, is characterized both by its back and forth between the player on brushes and a cabasa in the accompaniment, as well as the tradeoff between the player and the synthesizer, which serves as the piece’s primary source of melody. The difficulty of this first passage comes in two forms: the first and most important being that of the player’s dexterity with brushes, and

the second, being able to mimic the characteristics of both the synthesizer as well as the cabasa. The first seven measures (Figure 1. a.) set the tone of the rest of the section, with the player replicating both the sudden rise and slow fade of the synthesizer and the precision of the cabasa, all while using plastic brushes.

The image shows a musical score for a Snare Drum and Audio Accompaniment. The Snare Drum part is in 4/4 time and features light nylon brushes with snares off. It includes dynamics like *p*, *mf*, and *f*, and articulations like *sim...* and *L R*. The Audio Accompaniment part includes chords *Ami* and *Emi*.

Figure 1. a.

The prototypical application for brushes in drumming is often found in slow jazz and blues charts, in which the drummer stirs, an action in which the brushes are pressed lightly into the snare drum and moved in a circular motion in efforts to create a consistent, soft white noise (such as in works of Chet Baker, in particular). Metal brushes are often used for this due to the resonance within the metal, as well as their beaded tips that can gain more friction against a drumhead. In “Triptych,” this expectation is immediately flipped, as the performer is now asked to make precise 16th and 32nd notes, all while maintaining relatively soft dynamics in both the center, off center, edge, and rim of the drum. The first seven measures start easily enough, with fragmentations of these rhythms, and a clear call and response between cabasa and player. That

safety is quickly lost as the section proceeds to launch into its 16th-note-driven base, led by the percussionist playing on the drum's rim, and the oscillating synthesizer overtop. In this section, the crux of difficulty lies in the passage from the pickup to m. 17 to m. 24 (Figure 1. b.) and then from the offbeat of m. 25's downbeat, to the stir in m. 33 (Figure 1. c.).

15 *p* *f* *mf* **B**

18 *f*

21 *sim.* *p* *f* *p* *f* *p* *f* *p* *f*

24 *p* *f*

Figure 1. b.

Musical score for measures 24-28. Measure 24 shows a piano (*p*) section with a 16th-note drive, transitioning to a forte (*f*) section. Measure 26 continues the piano section. Measure 28 shows the piano section ending and the forte section beginning with chords Dmi, Ami, and C.

Triptych Boom (solo + audio) • Pg. 3

Musical score for measures 30-34. Measure 30 shows a piano (*p*) section with a 16th-note drive and a "sim." marking. Measure 31 shows a "C" marking and "slowly stir with LH". Measure 32 shows "RH w/brush". Measure 33 shows "RH w/stick". Measure 34 shows a piano (*p*) section with a 16th-note drive.

Figure 1. c.

There is a constant 16th note drive in the synthesizer that is only implied in the ensuing snare drum part. The player must follow a groove that incorporates little alternate 16th note sticking m. 17 to 18, while also placing the accent points of that groove off of any down beats, incorporating a quick, staccato brush on the left hand (the stereotypically “weaker” hand), all while maintaining clean, consistent 16th notes that perfectly align with the synthesizer overhead. This is the first test of the player’s listening. Even when performing with headphones, it is not always easy to hear the permeating 16th notes on the synthesizer over the sound of the snare drum. There are accents in the synthesizer’s part but aligning the player’s 16ths solely with those

accents can often lead to a messy, muddled sound. This ability to listen is further tested when the first example of alternating back and forth from 16th note patterns to 32nd note patterns shows itself m. 19. With sticks, these are easy changes to make for a percussionist, as the nature of a drumstick allows the player a sense of rebound with each stroke as it comes off the head. With brushes, there is no such rebound, forcing the player to rely solely upon their fingers and wrist to pull the brush back up and off the head. The tempo is only marked at a modest 112 beats per minute (BPM), but as 32nd notes are twice as fast as 16th notes, the tempo will also feel twice as fast for those few instances, creating a difficult environment for the player to fit each note into the beat before the next. The 8th and 16th note rests become that much more difficult to feel as the player rushes to fit each stroke into its respective beat, tempting the player to leave the sanctity of the 16th note motor in the synthesizer. Even when the motor is finally lifted at m. 30, giving the player a degree of rest, the player must then slowly phase from 16th notes to a quarter note, without any sense of time from the synthesizer, and stir exactly on m. 33 with the synthesizer sting. In only the first 30 measures of a 198 measure piece, the player needs to have near perfect control of their 32nd and 16th notes against an unflinching 16th note motor, be comfortable moving on and off of downbeats, and count two and a quarter measures while not playing with that counting.

The transition to the second section begins with the familiar brush “stir” in m. 33, played by the left hand while the right hand slowly makes the transition from brush on drumhead to drumstick on drumhead, all while echoing the shaker part in the synthesizer. This stir section ends with the player having to line up an offbeat group of triplets to a downbeat, on which the player also has to turn on the snares to line up with the accompaniment, marking the start of the second section.

Triptych Analysis: Section II

The second section acts as the primer for all following sections, with each idea present here brought back in subsequent sections. This is also the first section in which drumsticks are finally the primary tool of the player, with some added caveats. For one, the offbeat 16th note groupings of the first section are reintroduced, with the addition of rolls and over-the-barline-triplets, and a general triplet-note feel. In addition to that, the player uses their bare left hand to help form a 16th note groove. The same general restrictions and difficulties of the first section still apply to the second section, with the player having to adhere to both the 16th note motor of the synthesizer, as well as being able to play in and out of the pocket of the pertinent shaker rhythm. These two aspects of the accompaniment are, for all intents and purposes, the same as the first section, with the difficulty stemming from the player being able to maintain consistency within all the alternating rhythms, rolls, and offbeats. Percussionists tend to rush and overplay moving, driving passages. While the dynamic of forte is present in this passage, it, like a percussion forte in ensemble playing, should be taken with a grain of salt. At no point should the volume of the snare drum be louder than the volume of the accompaniment (save for a specific moment later in the piece). There are a few moments in this section where the player needs to coincide with the accompaniment, particularly at m. 43, when the rim hits start on the “e” of beat 3, and end on beat 4 with the accompaniment, at m. 49, after the 12:14 triplet section, which ends on a double buzz with the accompaniment, and at m. 53, where the accompaniment and the player meet once more, before the player begins the hand and stick groove (Figure 1. d.)

43

47

50

12:14

mf *f* *p*

f *p*

f *p* *f*

Triptych Boom (solo + audio) • Pg. 4

53

p l r r r l r l r *sim.*

Figure 1. d

The greatest challenge of this passage stems from the dichotomy of sound and technique between the left and right hands. Even though the left hand is bare, each 16th note should sound identical to those of the stucked hand, both in terms of strict rhythmic accuracy as well as sound quality. The left hand will naturally make a more dead sound, but it must contribute to the groove, rather than detract from it.

The conclusion of this section (Figure 1. e.) at m. 70 (and the introduction of the third section) offers its own challenge where, unlike the end of the first section, the player was required to space out in an even fashion their right-hand strokes over a span of two bars, now asks the player to space out a forte-piano snare roll over two bars, with no indicator of time from

the accompaniment. The player must start and end their roll in the span of two measures, when the last source of timekeeping received was two m. prior in m. 68, and end it on the downbeat of m. 72, in which the accompaniment adds another sting and finally returns the time to the player, bringing them and the audience into the third section.

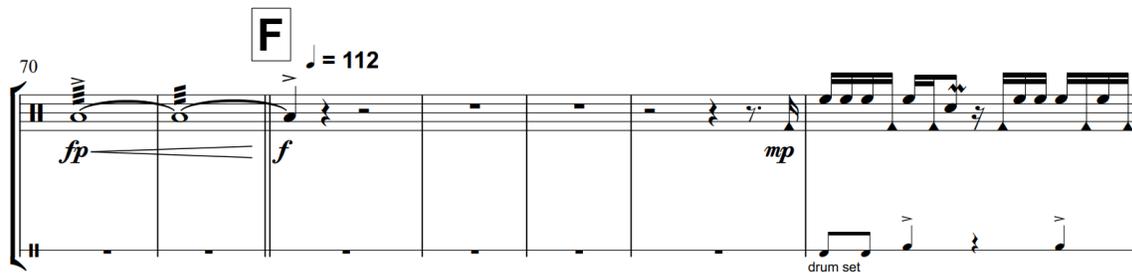


Figure 1. e.

Triptych Analysis: Section III

Where the player relied upon the synthesizer and a shaker/cabasa sound in the previous two sections to maintain a sense of time, the third section introduces a drum set accompaniment, to which the soloist is given some amount of room for musical expression every few bars. The synthesizer, and thus, the melody, demanded strict adherence to its tempo from the player in the first two sections; but now that the synthesizer has less impact and importance relative to the new drum set timekeeping, the player now has just slightly more musical freedom. That is not to say that the player is given complete freedom; if the performer does not adhere strictly to the tempo, the sound will still be muddled from m. 76 to m. 91 (Figure 1. e, f.) However, if the player waits a half a beat longer (particularly in the barehand to stick passage at m. 84), it is not nearly as conspicuous as it would have been in the previous sections. This allows the player to show a subtle sense of musicality and awareness of the surrounding ensemble, should they begin to embrace their growing role in the composition.

77

81

84

87

90

cont...

f *p* *f*

p *f* *p* *f* *p*

mp

fp *f* *p* *f*

p *f* *p* *f*

G

snares on

bundlz

Figure 1. f.

The piece's first, and arguably *only* moment of true soloistic freedom, is that of m. 92 (Figure 1. g.). The performer is to flip off the snares from the previous section, switch to the bundled dowel sticks, and perform a Tito Puente-esque solo. With the dowel sticks and the snares off, the typical characteristics of the snare drum are lost, and instead replaced by what sounds quite close to a single timbale. The solo written out embraces such a newfound character, with plenty of rimshots, 8th note and quarter note triplets, off-beat flourishes, all concluding in a bombastic mix of 32nd flourishes and rimshots. As written, the solo is a perfectly reasonable and serviceable solo that sounds entirely organic and spontaneous to the listener who hasn't seen the score. However, the only accompaniment present is a drum set and a bassline. Chad Floyd,

whether intentionally or not, has left the player with a blank slate upon which they may do as they please. The solo is well-balanced, with plenty of buildup and flair to show off a player's chops. If the player were to take it upon themselves and truly improvise, all they would need to ensure is that the solo be 8 measure long (a symmetric phrase common in drum solos) and land on the occasional downbeat. There is an entire measure of buffer after the solo for the player to switch their left dowel with a brush, but other than that, there is no other necessary movement for an entire 8 bars, aside from what should be a crazy timbale solo.

90 G *snare on* *bundlz*
p f p f

93 *3*

Triptych Boom (solo + audio) • Pg. 6

96 *3 6 6 3*

98 *3*

99 H *brushes w/LH, slowly stir* *bundlz sticks w/RH* *RH w/stick*
p

Figure 1. g.

Triptych Analysis: Section IV

The following section is reminiscent of the previous middle ground between the second and third section, complete with a stir, a switch to drumsticks, a precise snare flip, and some rolls and 16th notes to echo the accompanying cabasa/shaker (Figure 1. h.).

The image shows a musical score for Section IV, measures 106 through 119. The score is written for a single melodic line on a grand staff. Measure 106 starts with a *mp* dynamic and a triplet of eighth notes. Measure 107 features a *mf* dynamic and a snare drum roll indicated by 'r r r r r'. Measure 108 is marked with a *p* dynamic. Measure 109 continues with a *p* dynamic. Measure 110 shows a *mf* dynamic. Measure 111 features a *p* dynamic. Measure 112 has a *mf* dynamic. Measure 113 has a *p* dynamic. Measure 114 has a *mf* dynamic. Measure 115 has a *p* dynamic. Measure 116 has a *mf* dynamic. Measure 117 has a *p* dynamic. Measure 118 has a *mf* dynamic. Measure 119 has a *p* dynamic. A tempo change is indicated by a 'J' symbol and '♩ = 132' at the beginning of measure 119. The time signature changes from 4/4 to 3/4 at the start of measure 119.

Figure 1. h.

The difference comes at the end of the transition from m. 116 to m. 119, which acts as a vamp into the fourth section. The accompaniment and soloist trade a two 16th and 8th note rhythm for two bars, before a change of tempo and time signature throws the player into a groove that is entirely separate from those that came before. The tempo increases from 112 BPM to 132 BPM, and the player is now expected to play the same basic ideas introduced in the previous sections, albeit 20 BPM faster, and with next to no breaks in the form of rests for the next fourteen bars. The player must switch from alternative sticking, to doubling the right hand, tripling the right hand, and having to squeeze in opposing-hand ruffs before two consecutive accents, all while

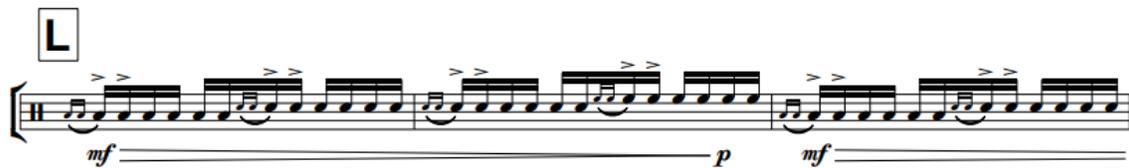
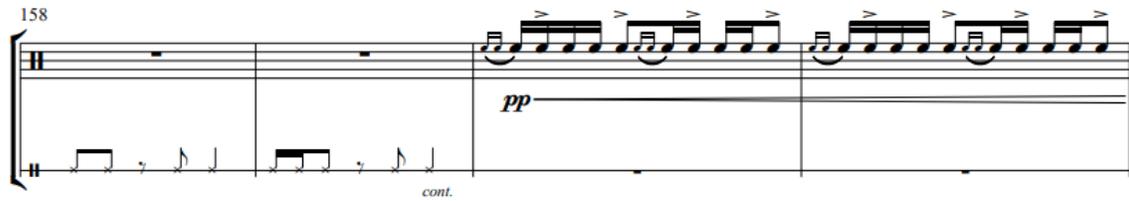
adhering to the returning oscillating motor of the synthesizer. At this point the synthesizer is subtle in its motor-qualities, but there is little margin for the player should they fall off the beat, as each phrase follows the next in nearly immediately. The breaks that do occur (m. 134, mm.136-143, figure 1. i.) serve to act as what I refer to as “artificial, subtle musicality.” If this solo were present in a setting outside of a written solo, such pauses in the context of a solo with an ensemble would show the player’s awareness of the passing beat, their ability to jump in and out of it at will, as well as show the soloist’s awareness of musical ideas already known to the audience. Each of these pauses, after all, are followed by echoes of previous sections: mm. 134-135 echo mm. 51-52, mm. 136-139 echo mm. 49-50, mm. 140-141 echo m. 27 and m. 59, and mm. 144-146 echo all passages in which the bare left hand was used in conjunction with the sticked right hand. These references are exactly that: references. If the player is unable to play them in a clear and concise manner at this tempo and with the accompaniment, the referential aspect of these phrases is lost, and the passage lacks proper coherency.



Figure 1. i.

Triptych Analysis: Section V

While the fourth section was a test of the player's ability to groove at a sudden tempo increase, the fifth section is, like the first section, a test of the player's technical prowess, though this time with drumsticks, and not brushes. The rhythms present in mm. 160-171 (Figure 1. j.) are not inherently difficult, but the ruffs between each of the doubled accents (particularly mm. 168-171) at this tempo provide challenge enough. The player can approach the sticking in two different ways: they can alternate the sticking throughout, forcing a ruff on the offhand every other double-accent, or end each double-accent phrase with a double sticking, allowing them to lead with whatever hand they may so choose. Either way, maintaining the clarity of the 16th notes and their accents following the ruffs is paramount as, for once, the absence of the synthesizer motor does not afford the player any luxury. Without the constant presence of 16th notes in the synthesizer, the player becomes the motor of the piece and, like the motor before, if there is no consistency, it will be abundantly clear to the audience. Even at the dynamic of pianissimo, each stroke is exposed, and any inconsistencies will be immediately conspicuous.



Triptych Boom (solo + audio) • Pg. 9



Figure 1. j.

This passage does, in fact, end at m. 172, giving way to another echoing of the four 16th notes grouping present in mm. 134-135 and mm. 51-52. From mm. 172-187 (Figure 1. l), this idea is both augmented from 16th notes to 8th note triplets to 8th notes, as well as getting progressively quieter. This is apparent in the dynamics and because the left hand drops the stick and switches to the barehand technique it has come to know so well. The final nine bars bear striking resemblance to the beginning of the piece, as the player switches back to brushes, then

moves from the center of the drumhead to the rim in slow fashion, before bringing the piece to its quiet conclusion with one last staccato brush stroke, and one last unison with the accompanying synthesizer.

The musical score is written for a single melodic line on a five-line staff. It consists of five systems of music, each starting with a measure number in the top left corner. The first system (measures 171-174) features a continuous eighth-note pattern with dynamic markings *p* and *mf*. The second system (measures 175-178) includes triplet markings above groups of three notes, with dynamics *p* and *mf*. The third system (measures 180-185) continues with triplet markings and dynamics *p* and *mp*. The fourth system (measures 186-192) is divided into two parts: the first part (measures 186-191) has dynamics *p* and *mp*, and the second part (measures 192-195) is marked 'brushes' and includes dynamics *mp* and *p*. The fifth system (measures 193-198) features a series of 'x' marks above the staff, indicating specific brush strokes, with dynamics *mp* and *p*. Chord symbols 'Ami' and 'Emi' are placed below the staff in the fourth system, and 'F' and 'Ami' are placed below the staff in the fifth system. The piece concludes with a final measure containing a 'R' symbol.

Figure 1. k.

Concluding the Boom

There are equal parts obstacles and benefits with the preparation and performance of “Triptych Boom.” The first performance practice issue was one I experienced as I neared the date of my recital: How can one be sure they have the proper audio equipment so a performance of such a piece can be presentable to an audience? If one is learning the piece for the mere sake of learning it for themselves, they will only have to worry about having some kind of mobile

device and compatible headphones to be able to listen to the playback track. The live performance of such a piece, however, will naturally require some amount of amplified sound, to which not all students will have easy access. As a student at California State University, Northridge's School of Music, my recital hall is equipped with its own in-house PA system, as well as a wide variety of floor and mounted monitors from which to choose. I was able to use a floor monitor that faced me to better hear the accompaniment and the in-house PA system for the audience, with the hope of surrounding them in the soundscape. Even so, the audio volume ended up being nearly inaudible to both me and the audience during the louder moments of the snare drum playing without someone to adjust the soundboard during the performance. With a dedicated technician, such a problem is trivial, but access to a technician is not always readily available.

The problem of sound balance extends into rehearsing the piece, as well, as it is quite rare for the common music student to have ready access to one or three monitors to simulate a recital hall experience. I used a Bluetooth speaker from time to time, but the substance of its volume was nowhere near what was needed to match the snare drum at its naturally loud moments, leading to lost time, musicality, and enjoyment for the sake of attempting to hear where the audio accompaniment was.

A final challenge is that of the piece's identity as a solo. It is a solo, without a doubt, in that the player is the only one present on the stage, and without a percussion trio (the other form of this solo), the soloist becomes the only performer on stage. However, the only true soloistic moment of the piece, in the sense that the player is given near complete musical freedom of expression, is in the timbale solo in the middle of the piece. The entire solo is technically demanding and provides an excellent challenge to the player's listening skills, but most of the

solo's musical expression is based in its subtlety. Of course this is not necessarily a weakness, as much of a percussionist's musical contributions in ensembles is based on subtlety. Even so, there are sure to be percussionists who would rather perform a solo that allows them to express themselves without the confines of an uncontrollable motor and surrounding melody.

Chapter 3: “Voodoo, Who Do? You Do,” by Casey Cangelosi

The Setup

Instrument choice for “Voodoo, Who Do? You Do” (“Voodoo”) is, to a degree, left to the interpretation of the performer. Cangelosi describes the work as either a vibraphone or a marimba solo, so long as the range spans from F3 to F6.⁸ My setup is as follows: a four-octave Deagan marimba for practice, a Demorrow five-octave M4 Studio Marimba for the final performance, a pair of Innovative Casey Cangelosi CGL4 Mid-High Register Marimba Mallets, one Manhasset music stand to hold the original book copy of the music, and one printed copy of the final page, to ease the page-turning process.

It should be noted that the score for “Voodoo” includes only the most pertinent of audio cues from the accompaniment. Most performers will need to write in additional cues to align with the accompaniment.

Where “Triptych Boom” provides the player with a click track to practice alongside, “Voodoo” does not. There is only the track, provided either as a download or on a CD. Should the player wish to practice with a click track, they will need to make one themselves. I did this using the free audio program Audacity by generating a metronome track to run alongside the audio, but there are plenty of other programs and methods that may be utilized.

Voodoo Analysis: Section I

“Voodoo,” like “Triptych,” can be divided into five smaller sections, each with their own unique set of demands upon the player. The introductory section acquaints the player and

⁸ “The Store,” *Cangelosi Publications*, <https://www.caseycangelosi.com/Store.html>.

audience with the prevailing audio accompaniment cues: a female voice reciting the alphabet (labeled as “playback voice”), a static tic (labeled as “playback tic”), and a gentle, unwritten, upper register piano that oscillates between octave A’s. The barely audible piano acts as a motor to the piece, with the static tic acting to cue the player, while the voice sounds at points in which the player and accompaniment must coincide.

The introduction is characterized by its contrast of staccato and legato strokes across an octave on the keyboard, all while being led by the piano and playback voice. The deceptive nature of the introduction’s difficulty is two-fold: one, ensuring the contrast between staccato and legato is consistent and apparent, and two, that there is definite dynamic contrast. 19 writes an explicit diminuendo from forte, and m. 33 shrinks from mezzo forte to piano).

The image displays a musical score for five staves of music, numbered 11, 16, 20, 25, and 30. Each staff contains a sequence of notes and rests, with letters A, B, and C placed above or below the notes to indicate specific points or patterns. The notation includes various rhythmic values such as eighth and sixteenth notes, and rests. Dynamic markings include *f* (forte) and *p* (piano). A fermata is present over a note in the second staff. A 3/4 time signature change is indicated in the second staff. A trill-like ornament is marked with a circled 2 and a 3 over a note in the first staff. The score concludes with a *p* marking in the fifth staff.

Figure 2. a.

Consistent execution of staccato and legato strokes is important as this contrast exists throughout the piece. As with staccato versus legato, dynamic contrast is a device that remains constant throughout the piece and should be exaggerated.

As though to prove the importance of dynamic and stroke distinction, the second page of the introduction (Figure 2. b.) builds upon the first, adding in more dynamic contrast, sixteenth notes, and a wider range of pitches, all with a blend of both staccato and legato.

The musical score for Figure 2. b consists of six staves of music, numbered 48 through 67. The notation includes various rhythmic values, including sixteenth notes, and dynamic markings such as *mf* (mezzo-forte) and *fp* (fortissimo). The score is annotated with letters (A, B, C, D, E, F) above the notes, likely indicating specific musical elements or techniques. The first staff (48) begins with a treble clef and a 3/4 time signature, featuring a series of sixteenth notes. The second staff (51) continues with similar rhythmic patterns. The third staff (55) shows a change in rhythm with more prominent eighth notes. The fourth staff (59) includes dynamic markings of *mf* and a circled 'D' above a note. The fifth staff (63) also features *mf* dynamics. The sixth staff (67) concludes with *fp* dynamics and a final note. The overall structure is a continuous melodic line with varying rhythmic and dynamic textures.

Figure 2. b

The first two subtle, yet significant challenges of the piece present themselves in mm. 50-58, and m. 59-69. M. 50 marks the introduction of the idea of “R,” the piece’s primary form of dissonance as marked by the diminished fifth on the next beat (A and E-flat.) From this dissonance, the right hand must move from the E-flat to the C two octaves away, and back down to an E natural an octave above the original E-flat. It is a tricky spread as it at once disrupts the comfort of the octave spacing that had yet to be interrupted by both stretching the player’s wingspan, and then slowly bringing it back by moving the left hand. The left hand moves from the low A up a perfect fifth to an E, up a perfect fourth to the A, and then one more step to the B. It is a spacing that comes close to an octave, but always falls an interval or two short, working against the intuition of the player’s spatial awareness.

Mm. 54-56 mark the first of many times the player will have to execute a double stroke without disrupting the consistent motion of 8th and 16th notes played by the accompanying piano line, testing both the player’s technical and listening abilities. Mm. 59-69 is a challenge in dynamic contrast, with the awkward octave climb and spacing already mentioned. The left hand leaves its typical safety of an A to move up the scale to G, before having to leap all the way down to a low F, where it then climbs back up to a G, assists in 16th notes on D, leaps back down to the low F, climbs back up to a D, assists in 16th notes on F, before finally settling with 8th notes on G as the piece transitions into its second section. It is a test to the player’s spatial awareness on the keyboard, requiring them to either memorize the music, or be confident enough with their intervallic spacing that looking at the keyboard is unnecessary. This is a skill that is important for a percussionist, but difficult to master. The passage is not fast at 112 BPM and provides the player an opportunity to develop that ability on a keyboard, while ensuring their strokes are consistent, and their tempo consistent with the accompaniment.

Voodoo Analysis: Section II

The first page of the second section (Figure 2. c.) tests the player's ability to, as introduced in mm. 54-56, double a stroke across multiple notes of the keyboard while still maintaining consistent 16th notes.

The image shows a musical score for three staves of music. The first staff starts at measure 76 and contains four measures with notes labeled A, B, A, B, A, B, A, B, and C. The second staff starts at measure 80 and contains four measures with notes labeled G... and dynamic markings *fp* and *f*. The third staff starts at measure 84 and contains four measures with notes labeled A, B, A, B, C, A, B, A, B, and C, and dynamic markings *p* and *mf*.

Figure 2. c.

It starts easy enough in mm. 76-79, requiring the player to only move across notes that are immediately next to one another (F and E for the left hand, B and A for the right hand). In this section there is also the issue of rhythmic accuracy, as m. 77 contains a B on the “and” of beat two, only for the next two measures to have a note on the “e” of beat two (on notes G and C, respectively). They are small differences, which may not to be noticed by the casual listener, but attention to the tiniest of details is critical as a musician.

M. 80 gives the player their first opportunity for a “solo;” it is one of the first few passages that is free from the playback voice; it escapes the “usual” span of notes; it is never again repeated; it is filled with pauses and pickups; and it is capped by a forte-piano 16th note drone on F. It has all the makings of a solo, without an explicit “solo” marking.

The most technically challenging passage of this section, however, is mm. 93-107 (Figure 2. d). It marks the second time in which the playback voice appears to have been stuck on two switches, creating a muddled combination of G and B at the same time, all while the player executes rapid sextuplet 16th note runs down the keyboard. The two runs in this phrase incorporate both “white and black” keys, the first time the piece has done so. This tests the player’s ability to not only overcome the playback voice seeming to malfunction, but also their ability to move from black to white keys in a deft fashion, whether the keyboard bars are a half step from each other (B-flat to A, E natural to E-flat, E-flat to D), or a fifth/fourth from each other (diminished fifth from B-flat to E, F to B-flat). In the greater context of the piece, the most important notes are those that are accented, but should the player fall short in one of the runs, it is a mistake that will be immediately apparent to listeners.

The musical score for Figure 2. d consists of four staves of music in treble clef, spanning measures 92 to 107. The key signature has one flat. The music is characterized by rapid sextuplet runs of 16th notes. Measure 92 begins with notes C and D. Measure 93 contains notes C, A, B, C, G... Measure 94 has notes G, B... Measure 95 has notes B... Measure 96 has notes C... Measure 97 has notes A, B, A, B, C, B, C, B, C, D, C. Measure 98 has notes R, GE... Measure 99 has notes DE... Measure 100 has notes A, B, A, B. Dynamics include *mp*, *mf*, and *f*. Accents are present on several notes.

Figure 2. d.

Figure 2. e. Musical score showing measures 112 through 134. The score is in treble clef with a key signature of two flats (B-flat and E-flat). It features various rhythmic patterns, including eighth and sixteenth notes, and rests. Chord symbols (F, B, A, G, AR) and articulation marks (accents, slurs) are present. Measure 134 includes a 'slower' marking and a dynamic 'f' (forte) for a section of repeated notes.

Figure 2. e.

The second page of the second section (Figure 2. e) heralds the return of the double stroke, while also dedicating an entire page to the “solo” found in m. 80 as the piece’s closest “spiritual successor” to the solo it will get. There are no dynamics listed throughout the remainder of the page (save for the forte cue in m. 136), and yet there are plenty of runs that carry a natural sense of rise and fall. While all up to interpretation, m. 115 has a build towards the F and A-flat double stop on the “and” of beat 4, mm. 116-118 has a rise and fall before falling upon F and A-flat; with the primary focus of this page on the notes F and A-flat at the end, middle, or beginning of phrases, there is some natural sense of building phrases around

them. I chose to rise and fall throughout the runs, while emphasizing any F-A-flat grouping I came across. The same expectation of consistency across all 16th notes and staccatos still apply, but the piece allows the player the opportunity to begin to flex their musicality, all in preparation for the following section.

Voodoo Analysis: Section III

The previous two sections, as well as the subsections, all demanded consistent execution of 16th notes, the ability to differentiate staccato from legato, as well as some minor run and double-stroke facility. Section III now provides an entirely different test. Where the previous sections and their accompaniment have been rigid and robotic, the third section introduces legato, impressionism, intervallic awareness, and even some hand autonomy (Figure 2. f.).

The image displays six staves of musical notation in G-flat major (two flats). The music consists of a continuous 16th-note pattern. The first five staves (measures 143-159) feature a steady, rhythmic flow with a dynamic marking of *mf*. The sixth staff (measures 160-163) introduces more complex articulation, with slurs and accents over groups of notes, and a dynamic marking of *mf*. The notation includes various note values, rests, and articulation marks such as slurs and accents.

Figure 2. f.

The accompaniment changes from the rigid piano octave oscillation to a dreamy meander. The playback tic is the primary source of tempo at this point, contrasting the dream-like piano with its sharp tics first on beats 1 and 3, and then switching to beats 2 and 4. The player begins play at m. 143 in the lower register of the keyboard at mezzo-forte, and travels up the keyboard to move to and from two separate unisons or chords. There are tenutos placed upon each downbeat, but as the dynamics soften, so too does the play, encouraging the player to actively fade in and out of the accompaniment's texture. The playback tic is present to keep the 8th notes within relative order, but the true ending of each phrase is not until the playback voice either ends, interrupts, or begins each iteration of the phrase. The difficulty of the passage stems from the test of the player's ability to play consistent double-stops in a variety of intervals, all while creating some amount of airiness that reflects the accompaniment. It is the first true opportunity for musical expression for the player, and a moment in which they do not have to worry about the playback voice taking command. It plays on top of several of the beats, sure (m. 149, m. 153, m. 161), but it acts as a marker to show the player is still aware of the presence of time in an otherwise loose-time section. If the player is too slow or too quick, the voice and the notes will fail to line up and create a muddle of sound, thus necessitating a controlled amount of rubato, and allowing the player an opportunity to show off their ability to listen and stay within the overall confines of what is written.

Figure 2. g. Musical score showing seven staves of music, measures 167 to 191. The score is in a key with two flats and a 3/4 time signature. It features complex rhythmic patterns, including a 'two against four' texture starting at measure 167. The dynamics are marked *mf* throughout. Fingerings are indicated with 'I' and 'N' above notes. The piece concludes with a double bar line and repeat sign at measure 191.

Figure 2. g.

With the second page of Section III (Figure 2. g.) comes an expansion of the two against three phrasing hinted at in mm. 163-165, introducing a two against four (mm. 167-173), and the most difficult challenge of left against right hand autonomy: three against four, and three against

five (m. 189-191). In previous tests of autonomy, such as mm. 167-173, the two hands are never far from each other, and though they start and end their sequence on different 8th notes, their close-proximity in both physical space as well as musical space eases the challenge in considerable fashion. With two against three and two against four, the left and right hands tend to gravitate towards the heavy beat found in the left hand. There is emphasis on the right hand's sequence, but the left hand acts as anchor enough to allow for relative ease in counting. The three against four and five in mm. 189-190, however, features sequences on each hand just long enough that there is never any solid anchor point for the beat. With the hands only meeting twice, or once every five beats, the performer might prefer some form of timekeeping present in the accompaniment. At this point, however, the playback tic has been absent for at least four measures, leaving the player with only the airy, now phasing piano from which to glean a sense of time. The piano can provide a sense of 8th notes, sure, but there is no way for the player to know if, by the time it arrives, that the piano has phased into a different beat, or if they, themselves, have managed to phase out of the tempo. With a metronome this difficulty is made trivial, and enough time with the metronome will help the player maintain confidence in their interpretation of the tempo. In performance, with no sense of time, the interpretation is largely left to the performer.

The section concludes with a reference to its beginning, albeit this time incorporating and compelling the player to blur their 8th notes into 16th notes, and those notes into an ad lib'd phasing as the section comes to a close (Figure 2. h.). As there is no need for the player to be aligned with the playback at this point, and a large amount of silent space between these measures and the next section, it is left up to the performer how quickly they should move through the phrase, so long as they have time to prepare for the next section.



Figure 2. h.

Voodoo Analysis: Section IV

Section IV (Figure 2.i.) begins with cheeky commentary from the playback voice: “That was a very good try.” Before the player or the audience is given a chance to laugh or consider such a statement, the player is thrown into what is by far the most unforgiving and demanding of the sections. The double-stroke figures of Section II’s m. 76 return, now about 30 BPM faster, and with even more double strokes across white keys. The “A, B” motif of Section I returns, as well, with all possible space left in Section I filled with 16th-note runs. In fact, much of Section IV (m. 202-222) is exactly that: Section I, with zero empty space, and 30 BPM faster. While the only truly important 16th notes are those that line up with the playback voice, there is still the need for some form of constant 16th note motor permeating throughout the page, to both drive the piece along as well as ensure the player does not get themselves lost, should a note or two be dropped. If there is a note dropped, the accompaniment moves fast enough that rejoining can be difficult, to say the least.



Figure 2. j.

The difficulty here is maintaining the 16th to 8th note stutter, all while being an octave apart and maintaining a perfect sense of time, as well as careful listening to ensure the player and piano are in unison. Melodic passages are often the most exposed playing for a percussionist, especially when in unison with another instrument; this is just such a passage. The sequence features only one bar which repeats (in m. 230 and m. 234,) but other than that, the rhythm changes from bar to bar, with the phrase throwing the player up and down separate octaves, testing the player's keyboard comfort and awareness.

There is little room for rest, however, as two beats later an even further manipulated “A-B” motif is presented, this time with the A and B in a higher octave on the right hand, and a double-stroke sweep from F to A an octave down on the left-hand. The right hand then ascends a C major scale on every 8th note, with the left hand splitting its beats on F and A. Just as the player grows comfortable with this repeated figure, however, it is cut short the second time through, landing the player on a D in m. 238, and then down to E to an ascending and descending C major scale, this time in 16th notes starting on E, with the second ascension featuring a leap from B to D, as opposed to the C resolution, repeating all of that for another measure, before leaping back up to the “A-B” motif, this time reminiscent of the piano figure a few measures prior.

This particular chunk of the section is supremely challenging for a variety of reasons, the chief of which being the absolute unforgiving nature of the runs and spacing within them. Scales are rudimentary for any percussionist on a keyboard instrument, but the toughest to play rapidly by far is a run of only naturals, without any black-key switches. A simple enough concept when one knows that the next note is simply whatever follows the previous: A-B-C, C-D-E. What makes these runs most unforgiving is their starting and ending locations; the first two notes lie an entire seventh from one another, the last two notes skip the expected resolution, all to jump back down a seventh. As with the previous page, the most important notes are those that are accented, but the movement up and down the scale is just familiar enough for any listener to know if there is a note missed or repeated in the scale. There is no accompaniment with which to line up in this section of runs, with no playback voice present until m. 240, but come m. 241 (Figure 2. k.), the need to align with the track returns.

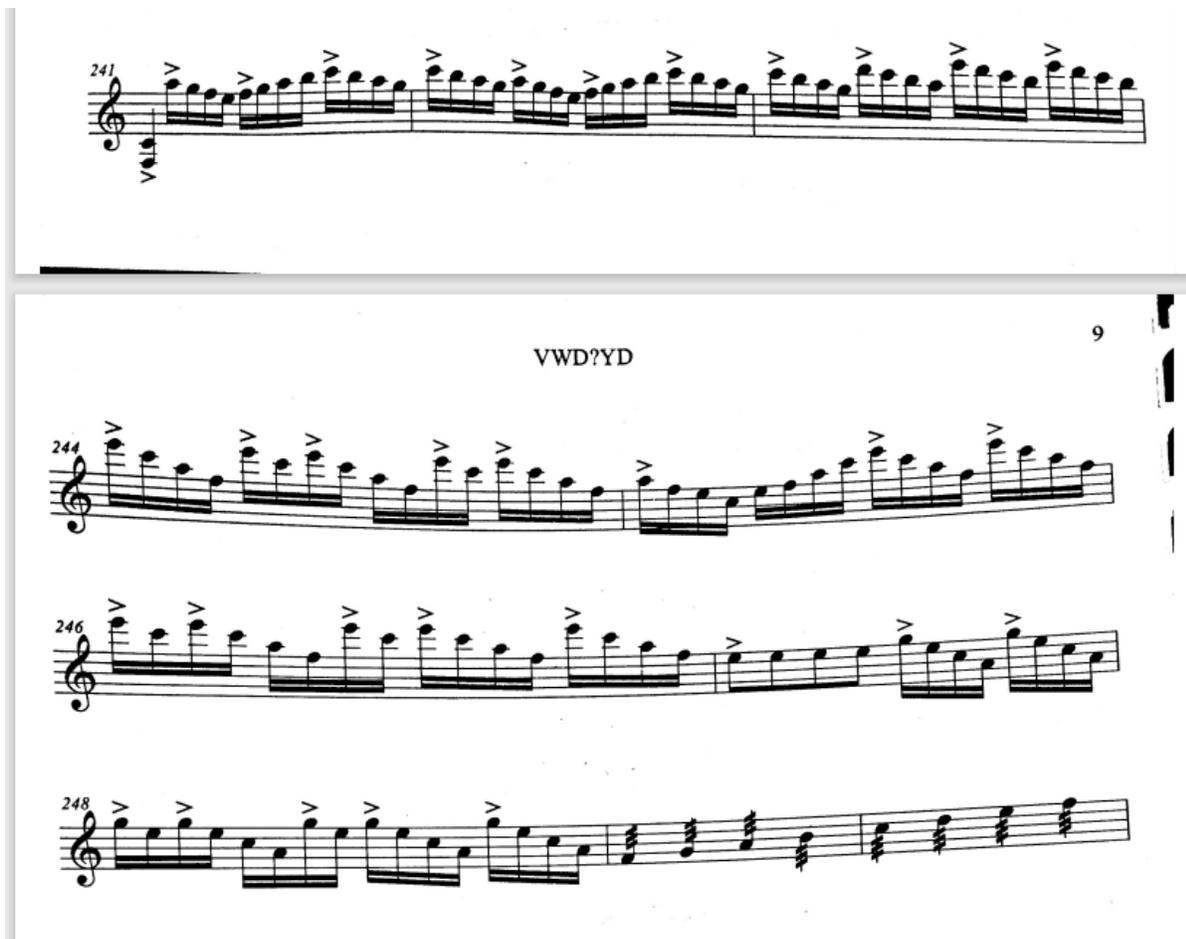


Figure 2. k.

Mm. 241-248 brings the need for speed and dexterity back to the runs, with the added element of needing to land every accent on either a corresponding playback voice or playback tic. The tic is subtle, but when lined up, creates a groove that fits the arpeggios near perfectly. The arpeggios are not as difficult to get clean as the stepwise runs in previous sections. If played accurately, they can add significant dramatic emphasis to their descent into the stepwise rolls in m. 249. These rolls require judgement from the player on how many strokes will be necessary (be it five or six stroke hand to hand rolls), and act as a vamp into the next section. The concluding runs of this section act as a definitive finale for the idea of a motoring part, with each previous run building to the 16th note sextuplets in m. 254, m. 256, and m. 257 (Figure 2. 1.).



Figure 2. 1.

By far the most unforgiving of the runs, the sextuplets demand both complete relaxation in the player's wrists, as well as masterful finger control as they scale up and down the run. With the beginnings and ends to the scales being so close, there is no need for the player to find a way to unfold their hands from the run, but it does leave the player trapped in the confines of shifting thirds. If these were 16th note runs such a rotation would be trivial, but just the sheer rapidness in the sextuplets necessitates that much more effort be put into maintaining a consistent and intelligible run.

Voodoo Analysis: Section V



Figure 2. m.

Save for m. 270, there are no more runs (Figure 2. m.). After two minutes of a constant motor, the piece succumbs to the empty space it was so quick to fill, with little motor. This comes as both a blessing and a curse to the player, who, starting at m. 295 (2. n.), will now have little to no constant motor upon which they can rely. Instead of runs and consistent 16th notes, the player is tasked, once again, with unison, and unison that is, once again, exposed. From m. 295 to the end of the piece features the player and the accompaniment in unison. Mm. 295-322 is unison between the player, the playback voice, and the playback tic. There are guitar strums in the track, which in previous sections acted as cues, but here these fall either on or immediately after the unison points, providing little to no clue for the player should they ever fall off the unison figure. As with the prior unison passage, the ability to maintain time and listen carefully is paramount, and even more so on the last page of the piece (Figure 2. o.).



VWD?YD

11



Figure 2. n.

Figure 2. o.

The section which begins in m. 323 marks the final unison passage. This is a return to the unison between player and piano found in m. 228. This time, however, the octave is expanded, now reaching as wide as A to E. The stutter 16th notes are more sporadic this time, as is the placement of each figure. From mm. 334-338 there is even a phrase that jumps from 4/4 to 18/16 time, followed by a jump from 3/4 to 5/8 and back to 3/4 in mm. 344-346. These two instances offer particular challenges to the player, as they disrupt the typical 16th and 8th note back and forth, offering instead what feels like the most awkward of triplets in the first phrase, and a

dropped beat in the latter. Other than that, these note groupings provide little challenge in any other context, but in the context of the piece demanding perfect unison, in a high register, with a wide arm spread, the difficulty is one that rivals even that of the wicked and fast runs of the previous section.

Voodoo Conclusion

As with “Triptych Boom,” the transition from practicing while listening to the playback through headphones to monitors is not an easy or even feasible transition. Even with access to a variety of monitors and PA systems in a recital hall or rehearsal room, the balancing of instrument to accompanying track is one that requires an active technician to monitor balance throughout the piece for an experience that benefits both the audience and performer.

Both Triptych Boom and Voodoo include a variety of challenges to overcome. They are both technically and musically demanding in multiple ways. Successful pairing with their accompaniment tracks also requires the appropriate playback devices and the ability to listen in ways that might be unfamiliar to even an experienced performer. Despite these obstacles, these pieces should not be overlooked as an opportunity to acquire listening skills that are transferable to ensemble playing.

One plus for “Voodoo” is the simple instrumentation. Regardless of whether the player chooses a vibraphone or a marimba, it does not have to be larger than 4-octaves. Where most modern keyboard compositions will call for 4.5 or more octaves, the relatively smaller range makes this work accessible to a broad spectrum of musicians and programs. A smaller instrument, by default, leads to a more condensed setup, and less space necessary to perform or practice.

Conclusion

“Triptych Boom” and “Voodoo, Who Do? You Do” both offer opportunities for significant musical growth. They demand the most from their players in all aspects of solo and chamber playing, with limited equipment, and no (or little) need for collaboration. Some may consider the potential for such expression and creativity limited when restricted to the cold, unflinching, unrelenting confines of what is, more or less, an elaborate and intrinsically deep click track. There is no replacing true collaboration between musicians, regardless of how precise and all-encompassing the simulation of such collaboration might be. These limitations, however, can also prove to be just as much an advantage.

Practicing with a static, inflexible accompaniment fosters diligence and attention to detail, both essential skills for a musician. Furthermore, these pieces require the performer to have basic technological skills to work with the backing tracks; these are skills that transfer to many other musical situations. These solos may not be a substitute for playing with an actual ensemble or partner but they do simulate many aspects of coordinating with other musicians. And unlike a potential human partner, the recording will always come to rehearsal prepared, the recording’s availability is open whenever you are, and the recording can travel wherever and whenever the soloist may please, so long as the soloist has some form of sound amplification (be it speakers for performance, or headphones for rehearsal).

Solos with electronic accompaniment are an effective and economic medium that provide a soloist with instant access to a simulated ensemble environment or soundscape, one that can be accessed at any time, with just the press of a button. In my undergraduate program there were few opportunities for collaboration with fellow percussion students (or students in general, outside of ensemble classes.) Performing “Garage Drummer” gave me a small glimpse of what it

felt like to be an active, leading participant in an ensemble. In my graduate program and quarantined from my peers, “Voodoo” and “Triptych” gave me opportunities to experience the feeling of being immersed in a soundscape, in addition to keeping my listening skills and technical chops sharp, all with minimal instrumental requirements.

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