

DISCUSSION AND ANALYSIS OF A GRADUATE RECITAL:

An Examination of Gary Burton's *Chega De Saudade*, Steve Reich's *Marimba Phase*, Michael Gordon's *XY*, John Cage's *In a Landscape*, Minoru Miki's *Time for Marimba*, and Milton Babbitt's *Homily*.

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## Abstract

This paper discusses some of the many facets of percussion music through the examination and analysis of the following works: Gary Burton's *Chega De Saudade* for solo vibraphone; Steve Reich's *Marimba Phase* for two marimbas; Michael Gordon's *XY* for five drums; the author's own arrangement for multiple-percussion setup of John Cage's *In a Landscape*; Minoru Miki's *Time for Marimba* for solo marimba; and Milton Babbitt's *Homily* for solo snare drum.

As the repertoire and performance practices of percussion continue to develop, there are many issues of note to the studying percussionist. These range from technical concerns, to issues of interpretation. Each work exemplifies certain of these issues, and this paper seeks to glean better understanding of those through analysis and study of the works.



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## Chapter 1: Gary Burton – *Chega de Saudade* (trans. Errol Rackipov)

This vibraphone solo is a transcription by Errol Rackipov (b. 1973) of a performance by Gary Burton on his Grammy Award-winning recording *Alone at Last* (1972). Burton – born in Anderson, Indiana in 1943 – began playing marimba and vibraphone at a young age and was an early champion of four-mallet playing. Today, the Burton grip is among the most commonly used four-mallet techniques.

The 152 measures of this piece express an initial statement of the tune’s “head”, two improvised choruses, and a final statement of the head with additional codetta material. The record rendition upon which this score is based is a little under five minutes in duration, with an average tempo of roughly 120 beats per minute. At this tempo, the work is what some might term a “show piece”; it comprises many diverse melismatic and ornamental figures characteristic of Burton’s playing style.

Besides the virtuosic runs and complex syncopations, there are plenty of challenges presented by this work as one endeavours to learn it. These challenges seem to manifest as a result of three mechanisms (hereafter referred to as “challenge mechanisms”): by way of learning the piece through the imperfect nature of this sort of transcription; in efforts to reconcile the unavoidable differences between Burton’s and one’s own playing styles and technical facility; as a means of ultimately presenting an authentic and original performance.

In this case, when speaking of the ‘imperfect nature’ of this transcription, I refer to the inherent flaws in the endeavour. First, Burton’s rendition of the tune is improvised, and an improviser’s approach to performance differs from the standards of performance practice in the Western classical tradition. In this case, distinction between the two groups is best put by saying one group’s primary conduit for the dissemination of music is the notated score (classical), while the other’s is not (jazz). Further, the discrepancy between them lies in the idea of an objective representation of a piece of music. That is to say, in response to the question “Is there an objectively correct way to interpret a piece of music?” one could answer with either “yes” or “no”, and therein we find a distinguishing characteristic of these two worlds. Strictly speaking, neither jazz musicians nor classical musicians belong exclusively on one end of this spectrum, but there is an implicit tendency of each towards a respective position. In essence, an improvising musician sets out with the plan of creating music in the present moment, in so doing accepting some degree of non-duplicability – no two performances will be alike, and that is an acceptable proposition. On the other hand, the survival of the Western classical canon through the ages has necessitated great emphasis on the written score. By this token, music of that tradition is biased towards objectivism, and the fetishization of the written score; when a composer puts pen to paper, the

product is often revered with piety (often for good reason). But, notating the improvised solo of a jazz musician for consumption as a facet of “the repertoire” transplants Burton’s solo from one world into another. The very existence of this transcription invites its own fetishization and asserts itself as the metric against which musicians measure themselves when reproducing Burton’s creation. In recording his rendition, Burton did not aim to capture the definitive iteration of *Chega*; the standard to which all subsequent renditions would be held.

Human error further hinders an objectivist undertaking of this work. The tempo and complexity lead to errors on the parts of both Rackipov and Burton, in transcription and performance, respectively. There are several cases in which Rackipov’s transcription fails to reflect the sounding notes and rhythms played by Burton. Besides that, there are flourishes and scalar passages in the recording which approach the total evasion of human perception due to their speed and density.

Then, there are the errors made by Burton himself. Rackipov rather conservatively inserts footnotes indicating suggested corrections, but overall maintains the integrity of the notes played on the recording to the best of his ability. Those wrong notes Rackipov corrects are usually ones which are the most audibly arrant, and also present themselves to experienced vibists as common physical pitfalls. For example, in the case of the F5 in measure 22, Rackipov correctly asserts that the desired note was G5, but I would be willing to conclude that most commensurate vibists would themselves unintentionally play the F instead. After all, the difference between playing the G and the F is a mere inch or so.

It is important to note here that the word ‘error’ need not bear the negative connotation it normally would in common parlance. In fact, part of the artistry with this piece is found in the very spontaneity with which mistakes are addressed. There is no better example of this sentiment than the delightful incidence of error on Burton’s part found in measure 117.



Figure 1: Burton, *Chega*, measure 117<sup>1</sup>

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<sup>1</sup> All Figures depicting the Rackipov score have been reduced to one staff to facilitate analysis.

Upon hearing this moment, it is clear that Gary intends to play a D4 in his left hand, serving as the root of the tonic chord we expect at this point in the tune. Instead, he misses and plays C4, completely undermining the stability of the tonic in this expository part of the phrase. Burton's ingenuity is given the opportunity to shine here, as we hear him observe his error *and correct it in real time*, without any apparent hesitation in his execution. In just a few sixteenth-notes' time, he muffles the misstruck note and follows it up with a chromatic passing gesture (C-C#-D-Db-C) which settles the contrapuntal insurrection it instantiates. The result fools the ear into believing that there was no mistake at all, and that Burton elected to play an entire measure of Dm7/C rather than the Dm7 – Dm7/C found in the corresponding measures of other statements. This is not the case, though, as evidenced by consideration of those corresponding measures: the (often chromatic, and therefore more gradual and less permissive of such a hasty onset of the C) step-descent bass is Burton's favoured opening gambit for the A-section phrases of this tune, and because this is also the final statement of the head there seems to be no justification for contrary belief.

Another of these challenge mechanisms is the reconciliation of the differences in style and ability between oneself and Burton. The poignancy here arises as a result of two things: the arduous task of adapting to the inherent stylistic intricacies of Burton's expression through, and mastery of, the instrument. To begin with, the improvisatory nature of this music makes it a manifestation of an intimate idiosyncrasy of Burton. As though the idea of encapsulating another performer's personal expression weren't enough, next the student of this piece must come to terms with the depth of the pool (no – ocean) of experience from which this particular performer draws. Burton, an indisputable champion of the instrument, possesses enormous facility, both cognitively in his understanding for the expressive capabilities of his instrument and physically in his ability to execute technical feats many consummate professionals would deem impossible. Regarding the latter, there is not much to be said about the task of dealing with the physical challenges of recreating Burton's playing. Either one's body is receptive and able, and the individual must simply put in the requisite practice time, or it is not, and they must reach a compromise between the respective demands of the music and their health. On the other hand, it may be equally as challenging to match Gary's depth of knowledge of the instrument. The intimate understanding of phrasing, inflection, articulation, and pedaling, he has gleaned through his many years of being a student of the vibraphone may be just as elusive.

The conundrum encountered here is formidable to say the least. Naturally, the specifics of this challenge mechanism would vary from person to person, warranting subjective discretion. I can only speak of the efforts I have made in my own experience to handle this. For one thing, my personal

experience with this and other recordings of Burton playing *Chega de Saudade* has aided my familiarizing myself with his phraseology. My knowledge of the piece is comparable to a cultural knowledge of nursery rhymes. By that I do not imply any mastery whatsoever of the intricacy in Gary's phrase-shaping. One can only assume, though, that a performer without comparable experience with the man's playing would have more difficulty therewith. In addition, whatever advantages having Burton's *Chega* "in my ear" affords me are subconscious. To speculate, one might suppose that such advantages might include the ability to memorize the solo with increased rapidity, familiarity with the placement of stresses within individual motivic gestures and ornaments, the manner in which Burton delineates harmonic progression by pedaling, mallet choice, and other technical concerns including grip, stroke height, stickings.

There are, of course, physical concessions made on my part in order to bring the piece together as a whole. There is one occasion on which I revised the rhythmic placement of a pitch to facilitate the execution of a passage. The last five sixteenth-notes of measure 47 exhibit a figure extant in Burton's playing by way of his ability to single-stroke many notes in rapid succession. In certain videos of his playing, Gary can be observed playing as many as six consecutive sixteenths at this tempo with one mallet. Regardless of whether this is seen as extraordinary or not, the author is in possession of no such ability. So, the D4 notated as the fourth sixteenth of beat four in measure 47 gets delayed until the downbeat of measure 48 in my performance (Figure 2). This allows me enough time to bring my left hand all the way up from its last known address at C#4 to play Bb5 on the third sixteenth of beat four. This way, my right hand need only strike as many as three notes consecutively:

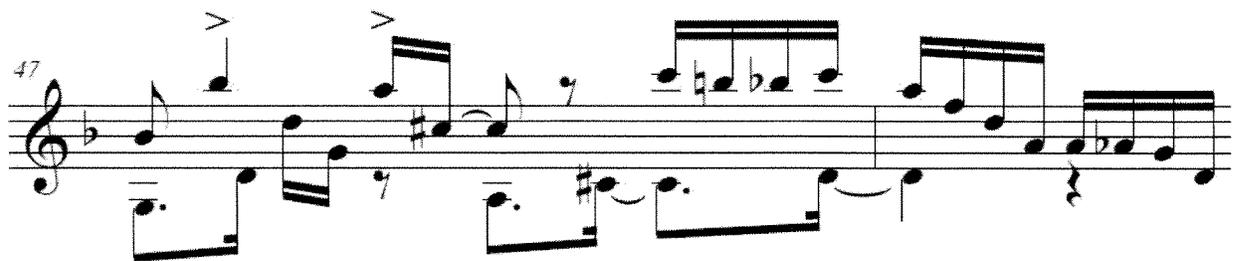


Figure 2: Burton, *Chega de Saudade*, measures 47-48

Another revision I made for similar reasons was to modify the rhythmic organization of the eleven-tuplet run in measure 52. As I play it, this scalar passage transpires more like an *accelerando*.

The first few notes are played at approximately the rate of the surrounding sixteenths, and I accelerate to almost four times that speed by the end of the figure. This not only makes the passage more playable, but it helps to rectify the metric disruption caused by the  $\frac{3}{4}$  time signature in the next measure. This change in time signature lasts for only one measure, and seems to be Rackipov's solution for notating what Gary does here. In this moment on the record, it sounds as though the performer rushes or drops a beat, and as a result the perception of steady metre is disrupted. Listening to the record, it sounds like a shift of about an eighth note. My accelerating version of this figure serves to quite neatly quantify this effect, making it reproducible from performance to performance.

Finally, my own rendition of the piece occurs somewhat slower, with an average tempo of approximately 100 beats per minute. This simultaneously addresses issues of physical ability to execute fast passages (although I certainly try to maintain the energy afforded by Burton's extreme speed), and also "feel" – which serves as a perfect segue for discussing the third challenge mechanism.

"Feel" is often used by drummers to describe the nuances of phrasing and rhythm specific to different genres. Perhaps the most ready example of this phenomenon is that of swing. Swing, which pervades jazz along with some other so-called "pop" genres, need not be defined here, but it is a perfect example of feel. Swung eighths are written as plain eighths, and it is on the interpreter of the music to delay the off-beat eighths somewhat, resulting in what is by today's electronic musicians called *unquantized* rhythm. In my eyes, swing is a modern day descendant of what for centuries has been called *rubato*. Its whole dharma is to elude concrete rhythmic delineation, whilst maintaining tempo and ensemble togetherness. The result is a feel: something that exists outside the realm of notation (at least as our notation stands today) and must be felt. Another unquantized feel comes from Brazil, and is born of *samba* and *bossa nova*. For this reason, I saw fit to make use of this feel to the best of my ability in my interpretation of Burton's *Chega*.

This is the third challenge mechanism: interpretation. In more words, the choices one makes so as to make a performance original; authentic. One of my musical idols (and a man with whom Burton credits much influence on his own playing), jazz pianist Bill Evans, is quoted saying:

"My creed for art in general is that it should enrich the soul; it should teach spiritually by showing the person a portion of himself that he would not discover otherwise. It's easy to rediscover a part of your self, but through art you can be shown part of your self you never knew existed. That's the real mission of art. The artist has to find something within himself that's universal, and which he can put into terms that are communicable to other people. The magic of it is that art can

communicate this to a person without his realizing it. Enrichment, that's the function of music.”<sup>2</sup>

In this quote, Evans addresses a central objective in performance. The efficacy of musical performance passes through, and is gauged by, the bottleneck of authenticity. A truly authentic performance will showcase something universal within the performer; at once both an intimately personal expression begotten of introspection and a facet of humanity reflected in all people.

The difficulty in this task lies in bridging the divide between the creative originality and score-fidelity requisite for an authentic performance. There is no tried and true algorithm for the task, making it an arduous process. In the author’s experience, the personal touches of originality come about naturally when focus was put purely on score-fidelity. Eventually, I noticed the liberties I took bore a certain commonality; notes were added, and manifested either as harmonic perfect-fourths accompanying existing melody notes, or were quartal harmonies unto themselves.

With some reflection, it was determined that these fourths arose subconsciously out of reminiscence of my study of Ron Delp’s *Vibraphone Technique*.<sup>3</sup> This book was both my first introduction to the study of four-mallet playing, as well as the theory of harmony. It was a gift from my first percussion instructor, and my overwhelming anticipation of beginning music school led me to treat it as gospel. One of the main lessons in the book is chord voicing to facilitate smooth voice-leading as well as ease of physical execution. The result has each hand playing fourths a good deal of the time, and it seems that years of revisiting “the Delp book” had worked that into my subconscious mind. Realization of this prompted the most drastic liberty in my interpretation, which was my addition of my own cadential material at the end of the piece. Burton’s own ending was too abrupt to the author’s sensibilities, and its replacement was built using quartal chords. Figure 3 shows a sketch:

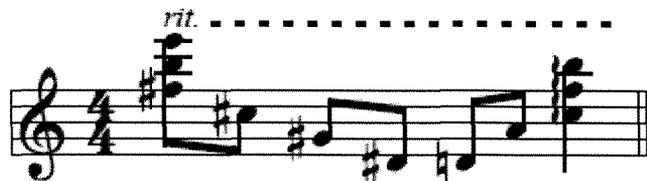


Figure 3: Hull, additional end material to Burton’s *Chega de Saudade*

<sup>2</sup> Bill Evans, liner notes to *The Complete Riverside Recordings* (Riverside, 1991).

<sup>3</sup> Ron Delp, *Vibraphone Technique: Four Mallet Chord Voicing* (Boston: Berklee Press Publications, 1975).

This ending was the final piece of the puzzle in contributing originality to my performance of *Chega*. It helped to maintain the spirit of spontaneity present in the music upon which the transcription was based.

## Chapter 2: Steve Reich – *Marimba Phase*

“*Marimba Phase*” is the ad hoc title given by its performers to refer to the realization of Reich’s *Piano Phase* (1967) on two marimbas, a re-orchestration of the work granted by the composer in the score.<sup>4</sup> The work marks the beginning of Reich’s experimentation with the live execution of *phasing* – a compositional device he had previously explored through the manipulation of tape loops in pieces like *It’s Gonna Rain* (1965) and *Come Out* (1966). These early phase works were created through use of two identical tape loops, and slicing a small sliver off of one of them. When played at the same time, the phasing effect is created as the slightly shorter loop continually advances on the other, so that they would gradually sound in and out of unison. The resulting effect is what Reich refers to as the “gradual phase shifting process,”<sup>5</sup> characterizing much of his work from the mid-60s to early-70s.

Phasing is an example of what some call “process-music,” where the compositional process used to create the music is the very same used to perform it. Reich creates elects to create what he terms “music as a gradual process” as means to attain transparency with his audience. In his own words:

“Performing and listening to a gradual musical process resembles:

Pulling back a swing, releasing it, and observing it  
gradually come to rest;

Turning over an hour glass and watching the sand  
slowly run through to the bottom;

Placing your feet in the sand by the ocean’s edge and  
watching, feeling, and listening to the waves gradually  
bury them”<sup>6</sup>

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<sup>4</sup> Steve Reich, *Piano Phase* (London: Universal Edition, 1980).

<sup>5</sup> Steve Reich, *Writings about Music* (Halifax: The Press of the Nova Scotia College of Art and Design, 1974), 50.

<sup>6</sup> *ibid*, 9.

By this definition, music as a gradual process takes on somewhat of a meditative affection, which is something I find of particular interest as a percussionist. I would surmise that this philosophy is embedded in the physics of idiophonic instruments; idiophones are struck (or, their process is set in motion), their sounds resonate and decay in a consistent fashion (the process runs its course, and comes to an end). It is with this in mind that I see a mutually dependent relationship between percussion instruments and the music of Steve Reich. The envelope of each individual pulse in his percussive works, even when rhythms are shared, is the domain in which the performers' sonorities interact. For example, consider the marimba pulses in *Music for 18 Musicians* (1976). They initiate the entire work, and arguably serve as a sort of canvas across which the other musical material is splayed, pervading it almost in entirety in some form or another. They are played by two players, such that they form a steady hocket. The articulation of the sound is important, but it is the body, sustain, and decay of each pulse, fading into the attack of its counterpart, each falling seamlessly in between the other, which makes the music flow. Reich addresses this concept precisely, referencing the jazz drummer Kenny Clarke, explaining that, although Clarke wasn't necessarily a virtuosic and flashy bebop drummer, the quality of sound, and character of his rhythm on the ride cymbal was "...the conveyance on which the band was moving...the vehicle [which was] driving the other musicians forward."<sup>7</sup> Arnold Whittall defines phasing as:

"A term denoting the effect achieved when two instrumentalists or singers perform the same musical pattern at different (slightly increasing or decreasing) intervals of time, moving in or out of phase. The technique of phasing is quite often used in so-called minimalist compositions, for example Steve Reich's *Piano Phase* (1967). Phasing can also be achieved electronically, when the results of mixing phased materials can be a good deal more rich and complex than a simple superimposition of identical elements."<sup>8</sup>

In the phase works, there is a fair amount of freedom with regards to how long a performance can last. To take *Piano Phase* as an example, consider first of all the differing numbers of repeats above each cell. Note that they correspond to a length of time in minutes, rather than measures; the instruction to repeat each phase-relationship in the first pattern 16-24 times corresponds to the 16-32 times of the second pattern, and 48-60 of the third by relative duration of time, not number of repeats. That is to say, as each subsequent pattern gets shorter, the repeats' "latitude" (a term Reich uses to denote precisely

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<sup>7</sup> Steve Reich, *Influences, techniques and politics*, Into the Music, ABC Radio International. <http://www.youtube.com/watch?v=blfzB1MfM8c>.

<sup>8</sup> Arnold Whittall, "phasing," *The Oxford Companion to Music*. Oxford Music Online. Oxford University Press, accessed April 10, 2017, <http://www.oxfordmusiconline.com/subscriber/article/opr/t114/e5139>.

this temporal phenomenon) elongate<sup>9</sup>, resulting in relatively similar amounts of time passing during the execution of each notated cell. What's more, the duration of executing a phase is effectively indeterminate, and varies greatly from one pair of performers to another, from day to day, and so on. The parallels with mindfulness meditation are especially useful here; the intention in the music is for the performer to decide what the present moment requires, and out of servitude to those requirements determine when is best to proceed through the music.

The piece is made up of three sections. Each section makes use of a different pattern for phasing from the last, and showcases the complete phase process from unison all the way to unison again. Player 1 begins, playing Section A's 12-note pattern, shortly thereafter joined in unison by Player 2, who fades in *dal niente*. Once the complete phase cycle is completed, Player 2 fades out. At this point, Player 1 modifies his/her material to that of Section B by adding one note in the left hand. In so doing, the pattern is rounded out in such a way that it now repeats itself every eight sixteenth-notes. Once the new pattern is established in the ear, Player 2 fades back in, with material distinct from that of Player 1. Again, the pair embark on a journey through the entire phase cycle, only this time it is Player 1 who fades out upon arriving back at the unison. Now, by dropping two pitches, Player 2 seamlessly introduces the pattern for Section C. This pattern is four sixteenth-notes in length, and both players are playing the same music again unlike in the previous section. The complete phase cycle is explored a third and final time, after which point a cue is given and both players stop suddenly. Figures 4 and 5 display the patterns for each section.

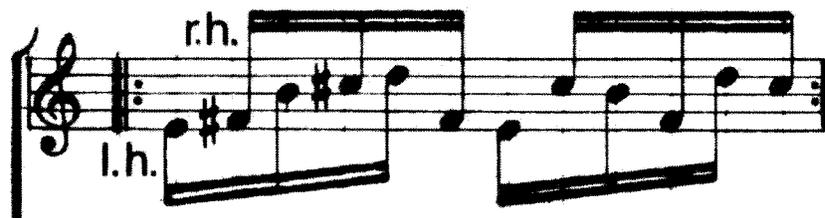


Figure 4: Reich, *Piano Phase*, Section A pattern

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<sup>9</sup> Steve Reich, *Writings About Music* (Halifax: The Press of the Nova Scotia College of Art and Design, 1974), 96.



Figure 5: Reich, *Piano Phase*, Section B patterns



Figure 6: Reich, *Piano Phase*, Section C pattern

The use of sequentially shorter and shorter repeating cells of music is common in Reich's music of this sort. Another example of this can be found in the patterns which serve as the basis for the rhythmic development process in *Music for Pieces of Wood* (1973). The technique makes for intuitive development of the music, but is also presumably a deliberate choice on the part of the composer: the average audience member has far from an unlimited attention span, and this would likely become very apparent were the sections to appear in reverse order, giving the impression of time elongating.

The first pattern of *Piano Phase* offers some delightfully complex phase-relationships. It is 12 notes in length, and shared between the two performers. The fact that it is 12 notes in length is what gives rise to its complexity: it is divisible by many different numbers, and Reich uses this to create a sort of fractal *hemiola* effect (where  $3/4 = 6/8 = 12/16$ ).<sup>10</sup> When we consider the material stemmed upwards and downwards separately, we see that the pitch-content of each divides the bar differently. Stems-up (the music of the right hand), there is an oscillation between F# and C#. Unless performed with stresses or accents omitted from the score, this is aurally perceived as a division of the bar into 3 beats of quarter-notes. In fact, without the material from the other hand, this really sounds like a pattern of two

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<sup>10</sup> Ibid, 218.

eighth-notes. On the other hand<sup>11</sup>, considering only the notes stemmed downwards, the laying-out of the pitch material is aurally perceived as two groups of three eighth-notes (Figures 7-9).

This hemiola effect also is at play on a larger scale, through the course of the phase relationships. The right- and left-hand patterns each undergo their own phase relationships, returning to unison every four and six phases, respectively, creating intermediary unisons before the overall phase process through Section A is completed.



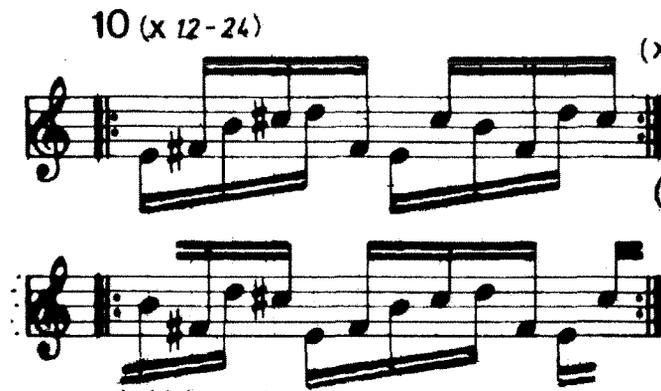


Figure 9: Reich, *Piano Phase*, left-hand unison (m. 10)

The material seen in Section B is a rare example of phasing two distinct patterns. This seldom happens in Reich's music, and it stands out as unique in my experience performing it. The resulting harmonic material is gratifying. To the author's ear, the resultant patterns produced by phase relationships VIII and VII (seen in measures 18 and 19, respectively) produce a rich collection of thirds and fourths – in refreshing contrast to Section A being replete with minor seconds.

*Marimba Phase* is a gratifying work to perform, both for experiential as well as historical reasons. As with any phase work, the experience of the challenges of phasing is ever-engaging. The mindfulness required to perform phases is a journey of endless discovery. Within the scope of the Reich's phase works, *Piano Phase* stands out as a remarkable point in the composer's history: as the first example of phasing between two live performers, it is at once both experimental and conservative within his canon of works.

### Chapter 3: Michael Gordon – *XY*

*XY* was written in 1997 upon commission by Dame Evelyn Glennie, and was premiered in 1998 by Dr. Steve Schick. It is scored for five drums which are used through the course of the work to examine the mechanics of various rhythmic relationships. It is important to note that the author uses terms *cross-rhythm* and *polyrhythm* to refer to two distinct phenomena: the harmonic and melodic juxtapositions of different rhythms, respectively. That is to say, a polyrhythm manifests as a result of the reorganization of a rhythm, exemplified in the following figure:



Figure 10: Gordon, *XY*, measure 247

Above we see steady triplets parsed into three groups of four notes, creating what will be called a “four *over* three” relationship. In contrast, a cross-rhythm exists as a result of two separate voices articulating two different rates of steady pulses, as follows:



Figure 11: Gordon, *XY*, measure 165

The effect achieved by the material in Figure 11 will be termed “five *against* four”. Note that, unlike polyrhythm, cross-rhythm does not necessitate metre. In other words, perceptible rhythmic friction of a four-over-three relies on there being an established metre – “four” is only audible with reference to the beat. The five-against-four in Figure 11, on the other hand, could be repeated *ad infinitum* and make just as intact a statement. The two voices of a cross-rhythm sound in unison, and pulse steadily at different rates in between.

*XY* makes a study of rhythmic relationships such as these in a manner reminiscent of species counterpoint, progressing from simpler to more complex variations of study. The culmination of this study can be found in the eight-measure repeated cell at measure 413 (Figure 12).

The image displays two systems of musical notation. The first system, labeled '413' and 'M.413-420 THREE TIMES', shows three staves for each hand. The top staff is the 1st voice, the middle is the 2nd voice (marked 'sub.'), and the bottom is the 3rd voice (marked '(p)'). The notation includes triplets and quintuplets, with dynamic markings of *f* and *p*. A bracket indicates a transition 'to M.437'. The second system, labeled '417', continues the same three-voice texture with similar rhythmic complexity and dynamic markings.

Figure 12: Gordon, *XY*, measure 413-420

This passage features a rather “singable” melody in each hand, manifesting a polyrhythm: every four pulses see a change in pitch, creating a four-over-six relationship in the right hand and a four-over-five relationship in the left. At the same time, these two melodies relate to one another as five against six. As with the rest of the piece, there is a constant crossfade between the hands, acting to constantly shift the focus from one voice onto the other. Altogether, these factors lead to the succinct communication of a densely-packed musical message. The most astounding part about it, though, is the groundwork laid by Gordon in the preceding material. When spelled out in prose, as it is here, it is easy enough to understand the mechanics of this passage. However, it seems beyond question that a performance of this passage alone would fail to afford any audience as profound a grasp. It seems more likely that to an audience this passage would sound like a jumbled mess. The ears would not be primed and ready to comprehend what was coming their way. Well, this very scenario is accounted for in Gordon’s composition of the initial material of *XY*. In addition to functioning as a sound, uninterrupted flow of consciousness, the antecedent material does the double-duty of preparing the ear to comprehend

this passage.

From the outset of the piece, *XY* sets in motion a process which permeates its entirety. This process is the constant crossfading of dynamics between the two hands. At the beginning of the piece, an individual crescendo or diminuendo lasts three measures from base to peak or vice-versa. This duration subsequently drops to two (seen beginning in measure 103), and later to one measure (measure 365). Besides the closing material seen from measure 437 onwards, these three iterations of the crossfade process delineate the three main sections of the piece. If it is to be considered a study in rhythmic relationships, then these sections are the three stages of that study. Each section begins by establishing the rate of the crossfade process, allowing each hand to fully crescendo and diminuendo once. Upon completion of this cycle, a new relationship is heard, as one of the hands switches to a different drum, and sometimes to a different rhythm. Eventually, rate of change of these relationships is doubled, happening every time the extremes of the dynamic spectrum are reached.

The form *XY* takes is superficially simple. In getting to know the piece better, one comes to understand just how densely packed the music is. Indeed, the learning and memorizing process reflects the orders of magnitude in complexity Gordon weaves into the phrases of *XY*. Ideally, though, a performance of the piece does not seek to highlight the intense cognitive demands on the performer. The material is most clearly presented in a more matter-of-fact, clinical manner, making the task all the more cumbersome. To quote Steve Schick, “if ever there was a piece that needed an expert, it is *XY*.”<sup>12</sup>

#### Chapter 4: John Cage – *In a Landscape* (arr. Hull)

John Cage (1912-1992) wrote *In a Landscape* in 1948 to be played with either harp or piano. The piece can be found in *Piano Works 1935-48*, and is dedicated to Louise Lippold, upon whose dance the music is based.<sup>13</sup> The composition came after the completion of Cage’s *Sonatas and Interludes*, and incorporated some of the same compositional techniques used in that work. At this time, he was undergoing some philosophical metamorphosis. By studying the work of Ananda Coomaraswamy (1877-1947), and later Daisetsu Suzuki (1870-1966), he was grappling with the renunciation of ego.<sup>14</sup> This renunciation can be found in Cage’s collaborations with dancer and choreographer Merce

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<sup>12</sup> Steve Schick, *The Percussionist’s Art: Same Bed, Different Dreams* (Rochester: University of Rochester Press 2006), 75.

<sup>13</sup> Notes to pages 106-180, *The Cambridge Companion to John Cage*, ed. David Nicholls (New York: Cambridge University Press, 2002), 265.

<sup>14</sup> You Nakai, “How to Imitate Nature in Her Manner of Operation: Between What John Cage Did and What He Said He Did,” *Perspectives of New Music* 52, no. 3 (2014): 143.

Cunningham. Their work together was, “nonlinear, ‘pre-sensational’ (as opposed to ‘representational’) dance, antihistrionic and nonmimetic in form with neither art imposing demands or restrictions upon the other.”<sup>15</sup> Louise Lippold, the piece’s dedicatee, was herself a student of Cunningham’s. Cage’s work with her during a visit in 1948 to Black Mountain College – the visit which gave rise to *In a Landscape* – was similar in this regard. The two aimed to minimize the relationship between the respective progressions of the music and the dance.

The resulting structure of the piece is 15 groups of 15 measures, with subsections of 5-7-3.<sup>16</sup> This sort of rhythmic framework was common in Cage’s works of this time period, and is seen in his *Sonatas and Interludes*, *Dream*, and his *Toy Piano Suite*. Using this compositional technique, Cage was able to lay framework for his music which facilitated the music’s progression without reliance on tonal devices. In turn, the music begotten of the technique flows in an organic manner reminiscent of Schoenberg’s idea of motivic development.<sup>17</sup>

Another characteristic of Cage’s music from this period in his career was the limited pitch-content. Restrictions on pitch organization in *In a Landscape* imply a pitch-class centre of D. Scalar passages in the work cause modal ambiguity, indicating either an Aeolian or Dorian modality as a result of the pitches Bb3 and B4 being equally extant. In this way Cage created a “quasi-tonality...or at least harmonic stability.”<sup>18</sup>

To the purist, my choice to arrange Cage’s music might be seen as a transgression against the work. The discussion of performance liberties is not a new one: consider the debate of whether playing Bach on a modern piano is acceptable. That debate is one that may never be solved, because there is no way to know what Bach would have thought about the instruments in use over 250 years after his death. The modern pianist can find justification through the unassailable argument that Bach, had he been able to compare the two, may have even preferred the sound of the modern piano to that of the keyboards in his day. However, in the case of my transcription, an argument of this sort is not as tenable. In fact, Cage admitted distaste for the vibraphone, the instrument to which I have given the majority of the

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<sup>15</sup> Alan and Sali Ann Kriegsman, “Dance” from *Dictionary of Contemporary Music*, ed. John Vinton (New York: E.P. Dutton & Co., 1974), 172-173.

<sup>16</sup> Notes to pages 106-180, *The Cambridge Companion to John Cage*, ed. David Nicholls (New York: Cambridge University Press, 2002), 265.

<sup>17</sup> Christian Wolff, “Cage, John” from *Dictionary of Contemporary Music*, ed. John Vinton (New York: E.P. Dutton & Co., 1974), 118.

<sup>18</sup> Kyle Gann, “No escape from heaven: John Cage as father figure,” in *The Cambridge Companion to John Cage*, ed. David Nicholls (New York: Cambridge University Press, 2002), 245.

musical material in my arrangement.<sup>19</sup> Nonetheless, this debate is easily dismissed in my mind. Firstly, I believe Cage's dislike for the vibraphone was informed by its association with "elevator music" rather than its sonic qualities. Moreover, I believe Cage would have sympathized with my motivation to create the arrangement: solely out of servitude to the music. Finally, the purist argument against my transcription rests on the assumption that the composer's opinion ought to be considered authoritative, but even Cage disagreed with this. On more than one occasion<sup>20</sup>, Cage is known to have approved of performers' deviation from his initial intentions.<sup>21</sup> A quote from Morris Palter echoes in my mind pertaining to this very issue in percussion music:

"Right, but isn't that the point? Even Cage himself didn't think it was of that much importance, and so it's really our job to figure these things out, even though he's the composer who wrote that."<sup>22</sup>

Palter makes this statement in discussion with Allen Otte about Cage's heralded *Third Construction*. Otte brings up that when Cage brought his first boxful of scores to the publisher, the work was omitted. The piece remained unpublished for several years, indicating that Cage thought little of the work – in stark contrast to today's percussion community, among whom few works are so unanimously revered as *Third Construction*. The point is, today's percussionist is responsible – at least in part – for determining and manifesting the aesthetic merit of his/her repertoire.

From the first time I heard *In a Landscape* I felt a profound urge nearing obsession to rework its instrumentation. It was during a cold, dark, lonely Fairbanks winter that I first encountered the piece, and seemed to address my laments. Certain characteristics of the work reminded me of being back at home, playing gamelan, and it was desire to highlight the aspects that informed my arrangement. In the end, my focus was mainly on timbral and textural/orchestrational qualities. My arrangement makes use of three-and-a-half-octave vibraphone (C3-F6), low- and high-register Orff metallophones, pitched pipes, crotales, and three timpani. I also used one note (Bb2) from a kelon-bar marimba to supplement the range of the vibraphone, but was born out of necessity rather than purely artistic motivations.

My timbral concerns influenced my instrument selection in a broad sense: primarily, I wanted to create *ombak*, the Balinese word used to describe the beat-frequency vibrato ubiquitous in Balinese

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<sup>19</sup> John Cage, "John Cage and Roger Reynolds: A Conversation," *The Musical Quarterly* 65, no. 4 (1979): 573-95.

<sup>20</sup> Thomas J. Kernan, "What of the Performers?" *The Modern Percussion Revolution: Journeys of the Progressive Artist*, ed. Kevin Lewis and Gustavo Aguilar (New York: Routledge, 2014), 22.

<sup>21</sup> Christopher Shultis, "Writing (at the End) of New Music," *The Modern Percussion Revolution: Journeys of the Progressive Artist*, ed. Kevin Lewis and Gustavo Aguilar (New York: Routledge, 2014), 49.

<sup>22</sup> Bill Sallak "On the Nature of Percussion Masterworks," *The Modern Percussion Revolution: Journeys of the Progressive Artist*, ed. Kevin Lewis and Gustavo Aguilar (New York: Routledge, 2014), 191.

music. This vibrato is central to the Balinese aesthetic, and is thought of in a deeper sense as representing the vibrancy of life. The pairing of the A=442 vibraphone and A=440 Orff instruments was ideal in incorporating ombak in my arrangement. Similarly, the use of the crotales and carefully cut lengths of pipe aided with this effect, as well as the inherent wobble in the pitch-envelope of the timpani.

The concept of orchestration I borrowed from the gamelan was the register-respective function of the instruments. My use of timpani mirrors the large gongs of the gamelan, which serve the function of structural phrase-demarcation. Next, each section of *In a Landscape* features a melody which gets divided into two voices, just as in gamelan. It was interesting that these concepts were almost coincidental: I would argue the notes Cage wrote already function this way, and I was simply highlighting these functions through instrumentation.

#### Chapter 5: Minoru Miki – *Time for Marimba*

*Time* was written by Minoru Miki (1930-2011) in the summer of 1968 for renowned marimbist Keiko Abe (b. 1937), and is regarded today as one of the great classics of the marimba repertoire. Such regard is garnered not only by way of the substance of the work, but also the circumstances under which Abe commissioned the work from Miki.

Keiko Abe is considered by many to be a progenitor of solo marimba performance. In the time leading up to her commission of *Time for Marimba*, she was already in the throes of a prolific career: she had recorded over a dozen albums, hosted her own instructional television program, and was played on the radio daily on the show “Good Morning Marimba”.<sup>23</sup> Abe’s success led to much more widespread interest in the marimba. Indeed, many of today’s most notable marimba soloists are Japanese, and are such as a direct result of Abe’s influence.

Her influence impacted the world of marimba in a variety of ways. In addition to enjoying a solo performance career of unprecedented acclaim, she brought new life to the marimba repertoire. Until Abe, marimba recitals tended to feature arrangements or transcriptions of Western classics, and lacked a canon of music. This changed rapidly as a result of her commissions: through the early portion of her career, 54 works were written for her by over 30 composers.<sup>24</sup>

Abe also had great influence over the development of the marimba’s manufacture. Today, there are standards of design which are held relatively similarly between numerous manufacturers. Most

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<sup>23</sup> Rebecca Kite, “Keiko Abe’s Quest: Developing the Five-Octave Marimba,” *Percussive Notes* (April 1998), 52.

<sup>24</sup> Tyoichi Yokomizo, liner notes to *Marimba Fantasy: The Art of Keiko Abe* (Denon OF-7197, 1990).

concert-model instruments span a range of five octaves (C2-C7) of fine-tuned, graduated-width bars, with complex resonator designs and sturdy frames built for transport, regardless of their make. However, when *Time for Marimba* was composed, the circumstances were vastly different. Until 1973, marimbas were four octaves in range, and varied from one manufacturer to the next with regards to frame design, bar width, tuning, and resonator design. That year, through close cooperation with Yamaha, Abe helped bring forth the first instruments of an increased range at four-and-a-half octaves. She used this instrument for several years, even bringing it with her on her first tour of the United States in 1977.<sup>25</sup> Then, in 1980 she requested a range extension, resulting in a total range of five octaves. By 1984, Yamaha created the first five-octave instrument with the help of Abe. She worked closely with the company on many details of the instrument's construction, including aspects such as tuning, bar graduation, and timbral concerns.

Abe believes that the “three cornerstones of Japanese marimba music include *Time for Marimba*, *Torse III* (by Akira Miyoshi), and *Mirage* by Yasuo Sueyoshi.”<sup>26</sup> Indeed, she featured these works in her own performances, which might account for their importance. Beginning in 1968, Abe gave three concerts as part of a series entitled, “In Search of Original Works”, and those three recitals are credited with having contributed greatly to the marimba repertoire at that time.<sup>27</sup> By championing Miki's works, Abe played a central role in earning him the recognition he gets from the percussion community.

It seems likely, though, that the sophistication and integrity of *Time* would eventually have been found out. Despite being Miki's first marimba work, the piece's compositional merit is self-evident. The phrase-structure is A-A'-B-Coda<sup>28</sup>, and its pitch-content is mostly made up of a six-tone series: C-B-Eb-G-E-Ab. This collection of pitches is developed through rhythmic and metric manipulation, transposition, and register displacement. The opening of *Time* showcases an interesting characteristic of this hexachord: the same series of pitches transposed by a tritone complete the aggregate. This combinatorial relationship is explored throughout the piece, and is literally stated through the meshing together of the two hexachords in the fourth line of the music (Figures 13-15).

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<sup>25</sup> Rebecca Kite, “Keiko Abe's Quest: Developing the Five-Octave Marimba,” *Percussive Notes* (April 1998), 52.

<sup>26</sup> Brian Zator, “A Comparative Analysis of Minoru Miki's *Time for Marimba* and *Concerto for Marimba and Orchestra*” (PhD diss., University of North Texas, 2008), 2.

<sup>27</sup> William Moersch, “Marimba Revolution” in *The Cambridge Companion to Percussion*, ed. Russell Hartenberger (Cambridge: Cambridge University Press, 2016), 46.

<sup>28</sup> Brian Zator, “A Comparative Analysis of Minoru Miki's *Time for Marimba* and *Concerto for Marimba and Orchestra*” (PhD diss., University of North Texas, 2008), 10.



Figure 13: Miki, *Time for Marimba*, Hexachord 1 (sys. 1)<sup>29</sup>



Figure 14: Miki, *Time for Marimba*, Hexachord 2: Hexachord 1, transposed up a tritone (sys. 4)

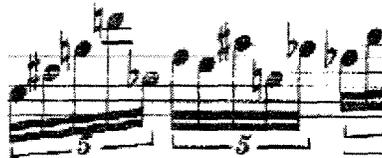


Figure 15: Miki, *Time for Marimba*, the aggregate composed of notes alternating between Hexachord 1 and Hexachord 2 (sys. 4)

This opening motivic material is displaced across the range of the marimba, eventually landing on C3 (the lowest note on the four-octave marimba for which *Time* was written). The music departs from the opening material, exploring similar pitch-content with soft rolls, punctuated by *fortissimo* interruptions of a C-Db motive, seen below in Figure 16:



Figure 16: Miki, *Time for Marimba*, system 11

<sup>29</sup> Due to the unconventional use of barlines in *Time*, the author will make use of numbered systems to navigate the score.

The A' section begins in system 14, with the same material as in the first A-section differing in dynamic markings. This time, before the having the chance to repeat the same arrival at C3 as before, the opening hexachord is used to make a sequential ascent, culminating at the end of system 24. After this culmination, new material is heard. The meandering, stuttered melody in the latter part of system 25 is fragmented and liquidated over the course of four systems. During its fragmentation, it introduces the motivic material developed in the B-section.

The B-section is a series of variations of a theme strung together by the motives from the previous fragmented material. By interpolating each of the motives with a *piano* diddle on C3, the fragmented motives are joined as one melodic line over a pedal point (Figure 17).



Figure 17: Miki, *Time for Marimba*, system 29

Miki creates forward momentum in early in the B-section by augmenting the intervallic content of this melody, while also gradually raising the pedal note by half-step. As seen above in Figure 17, the motion of the upper voice is all in semitone increments; in other words, primarily stepwise motion through the chromatic scale. Once complete, this melody repeats, but this time it moves through the whole-tone scale. This happens again, arpeggiating a diminished-seventh chord, and a fourth and final time arpeggiating an augmented triad. These last two iterations are really just further motion through symmetrical scales, where each step is the space of an augmented second and doubly-augmented second, respectively (Figures 18-21).



Figure 18: Miki, *Time for Marimba*, melodic fragment in stepwise motion with C3 pedal (sys. 29)



Figure 19: Miki, *Time for Marimba*, intervallic augmentation of melodic fragment with C#3 pedal (sys. 30)



Figure 20: Miki, *Time for Marimba*, second intervallic augmentation with D3 pedal (sys. 31)



Figure 21: Miki, *Time for Marimba*, third intervallic augmentation with Eb3 pedal (sys. 32)

The momentum built up through this material is dissolved, and brought to a conclusion. A different series of variations explored here, using the same thematic material without the ascending pedal. Instead, Miki employs double stops (first in one hand, then in both) and the dynamic profile is much flatter.

The next variation arrives suddenly, marked *forte*, and displaced across the range of the instrument. The surface rhythm is erratic – alternating between sixteenth-note- and triplet-subdivisions – and comes to rest as steady eighth-notes, in a diminuendo to *pianissimo*. The ensuing variation is a soft, lyrical statement of the B-section theme with ostinato accompaniment, in delightful contrast to the preceding material.

Another variation is heard, beginning in system 41, but is interrupted by the return of a motive from the transitional material between the A- and B-sections. Next, a final variation is heard, this time as soft-rolls across four octaves. The B-section is then drawn to a close by a soft chorale, with the

bass-voice reintroducing the A-section theme. After this retransition, there is a coda built on the opening material from the A-section, again with a distinct dynamic profile. The piece concludes with a final, octave-displaced statement of the A-section theme, culminating on a final C3.

#### Chapter 6: Milton Babbitt – *Homily*

The *Noble Snare* is a four-volume repertoire anthology, and comprises over 30 works by as many composers, including Milton Babbitt's *Homily*. The series was compiled by Sylvia and Stuart Saunders Smith in cooperation with the Noble and Cooley Drum Company. The books were created "to elevate the snare drum to the status of other solo concert instruments through the creation of a body of performance literature."<sup>30</sup> This was in response to, as the Smiths felt, a lack of compelling literature for the instrument. In their view, much of the repertoire at that time was published less as a result of its musical substance, and more out of the whims of percussion performers and pedagogues. The end result was a great success, building new relationships and deepening already existing connections between the percussion world and non-percussionist composers. Indeed, *Homily* is an example of that: the work is dedicated to Stuart, and he was in contact with Babbitt regarding editorial and interpretative concerns during its publication.<sup>31</sup>

Babbitt lays the structural framework for *Homily* through the manipulation of timbre, and through performance indications regarding beater-selection and snare activation. There are four beater types in total, used in eight different combinations, employed throughout the piece. Together, the implement-combinations and snare activation effectively segment the work into nine sections, two of which serve transitional passages featuring the use of different beaters in each hand.

Another defining characteristic of *Homily* is the meticulous use of dynamics, seen below in Figure 22. By conventional use, these indications invite interpretation as global intensities of volume. That is to say, one might assume that notes from different sections marked *forte* ought to bear enough similarity to be perceived as ostensibly the same. However, in *Homily*, Babbitt uses dynamic markings in a more local sense: they indicate the volume of individual notes with respect to the others in close proximity.

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<sup>30</sup> Jason Colby Baker, "The Snare Drum as a Solo Concert Instrument: An In Depth Study of Works By Milton Babbitt, John Cage, Dan Senn, and Stuart Saunders Smith, Together with Three Recitals of Selected Works by Keiko Abe, Daniel Levitan, Askell Masson, Karlheinz Stockhausen, and Others," (DMA diss., University of North Texas, 2004), 1-2.

<sup>31</sup> Milton Babbitt, "Homily," in *The Noble Snare: Compositions for Unaccompanied Snare Drum* vol. 1, ed. Stuart Saunders Smith (Baltimore: Smith Publications, 1988), 16 and 21.

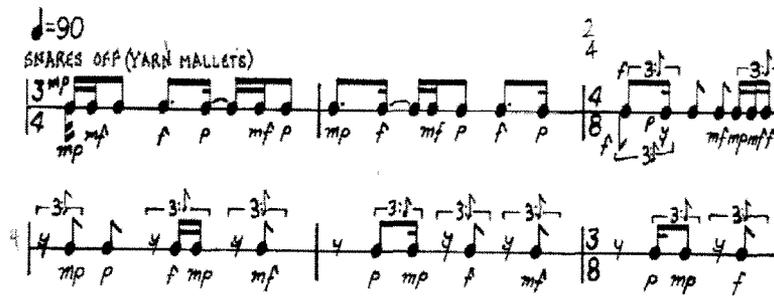


Figure 22: Babbitt, *Homily*, measures 1-6

Together, the sonority-manipulation and discrete use of dynamics at play in the piece bring about the examination of the peculiar relationship of the two hands of a percussionist. In *Homily*, there are times when both hands seamlessly indistinctly convey more monophonic material, and other times when each hand presents a distinct voice from the other. The use of matched and unmatched beaters in *Homily* brings this to the fore. Each stick change brings a new timbral voice into the dialogue of the music, as though the audience sits in a room with four (one for each type of beater) different personalities, each expounding its own perspective. When each hand holds a different beater, this is explicitly the case, while passages with matched beaters feature music in which this distinction is ambiguous.

Similarly, the local dynamic-contour in a given section also brings about a certain sense of the music flowing in and out of polyphony. In some instances, the prevailing effect of the dynamics is a sort of stepwise articulation of a crescendo or diminuendo, while at others music seems to be written in small bursts in different bands of the dynamic spectrum, as though independent from one another. Consider the score examples below:



Figure 23: Babbitt, *Homily*, "stepwise" crescendi (mm. 38-42)

SNARES ON  
SNARE STICKS

136

137

138

139

140

141

142

143

144

145

Figure 24: Babbitt, *Homily*, “polyphonic” dynamic contrast (mm. 136 to the end)

The overall effect of *Homily* lies in the ambiguation between polyphony and monophony showcased between the two hands of a percussionist. Babbitt articulates this through his manipulations of timbre and dynamic contrast, exploring the extreme ends of the spectrum and everything in between. By examining the relationship between the two hands’ polyphonic- and monophonic-playing, he addresses something of universal relevance when speaking of percussion music. As a result, *Homily* is a great addition to the repertoire for the snare drum, solidifying the achievement of the Smiths in compiling the *Noble Snare* series.

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