

Immersion Session Listing

Thursday Immersion Session – Perspectives on Reich

"Same Music, Different Perceptions? Steve Reich's Six Pianos and Six Marimbas as Case Study"

- Kyle Fyr (Indiana University)

The fact that Steve Reich's music encourages a listener to shift between various metric interpretations has been well established. Richard Cohn, Gretchen Horlacher, and John Roeder¹ have written on the subject, and Reich² himself has written about this issue as well. In certain situations, however, accounting for why and how such shifting metric perceptions occur can prove quite difficult. *Six Marimbas* (1986) is a rescoring of *Six Pianos* (1973), and although *Six Marimbas* is written a half step lower, the scores are virtually identical, prompting a reasonable assumption that metric perception would be very similar if not identical in both pieces. When listening to *Six Marimbas*, however, I have realized that I consistently perceive meter differently than when I listen to *Six Pianos*. Hypothesizing that this is no coincidence, this paper explores the reasons why my metric interpretations are not consistent between the two pieces.

Is there evidence anywhere that Reich would expect perception (metrical or otherwise) of the two pieces to be different? John Pymm

Interesting paper! I'm especially curious how performative differences were ruled out as influencing beat perception. David Chapman

Very interesting juxtaposition of the two pieces. In both, it's hard for me to perceive climaxes as strong metric accents. They seem like syncopations to my ear. But the system depends heavily on climax notes to establish metric accent. So I guess I'm not sure about the assumptions. Tim Johnson

"Tehillim and the Fullness of Time"

- Gretchen Horlacher (Indiana University)

It is apparent why Steve Reich was attracted to the words of Psalm 150. Its last three verses, appearing in the final movement of *Tehillim*, repeat the words "halleluhu" nearly constantly as the psalmist urges praise in the form of musical sounds. For a composer whose style originates in the consummate use of repetition, this text is a gold mine, especially as the psalmist invokes all of creation and time in its last culminating verse. A more compelling feature also beckons: the text bids us—humankind—to consider time both as ongoing human activity and as the summation of all activity and creation, urging us to join our present realm with the realm of the everlasting. It connects human and divine, a temporal world with an eternal one.

I discuss Reich's invocation of human and eternal time through careful uses of repetition. I describe a network of relations where human time (through sequence,

motion, and passage) interacts with eternal time (through the presentation of the whole even as individual parts unfold). Reich's repetitions evoke two basic properties of temporality, the experience of moving through time as one is abundantly engaged in each particular moment. Reich's music has often been characterized as static, or non-linear. Here I emphasize multiplicity: the fullness of time arises when the human is joined with the divine in a plenitude of energy. We are invited to enjoy the experience of the whole even as we move through its various parts.

Does Reich incorporate similar elongations in other works? I'm thinking specifically of *Three Tales*, however the beautiful narrative of *Tehillim* is replaced there by the frightening aspects timeless technological progress.

-- Sean Atkinson

I'm really interested in the notion of 'eternal time' - whether such a notion can actually exist, and whether it is actually 'time no more' so that it's more of an eternal 'moment'?

-- John Pymm

Thank you for an interesting paper! My question: might the listener's perception of the constantly changing meter be as something other than metered song--that is, perhaps as "heightened speech" or cantillation? What contribution to the notion of "eternal" might then be enhanced by the invocation of "The Word?"

-- David Chapman

"Early Steve Reich and Techno-utopianism"

- Kerry O'Brien (Indiana University)

Steve Reich's early process works are often likened to contemporary plastic arts of the 1960s. In the composer's own writings, he has pointed to his associations with artists such as Richard Serra and Sol Lewitt but denies any direct influence. Rather, the composer justifies his affinities with those artists by claiming that they were all "swimming in the same soup." The aim of this paper is to explicate Reich's early works in relation to this "soup" by situating him within a dominant countercultural trend of the late 1960s, techno-utopianism. Viewed through this lens, Reich's engagements with and subsequent disavowal of electronics clearly resonate with widely felt techno-utopian views of the late 1960s.

Thanks for this paper -- having studied engineering before switching over to music, I can somewhat relate to the themes that were presented in this presentation. Similar to Reich, I was very interested in using technology and science but later became fairly disenchanting with it. (My training has been very valuable and I'm thankful for it, but pushing for it so adamantly didn't really get the results that I thought I would get.)

I was wondering if Reich had said anything about ideas of objectivity and subjectivity in the music-making process? Historical funding issues aside (i.e. space race), the aesthetic appeal of applying the scientific method into art came from, at least for me and a lot of other people I know, the idea of discovering or being able to harness a certain type of objectivity that was supposed to exist outside of the artist themselves. It seems related to the idea of process music as well.

Ryan

This was a fantastic paper! It's great to get some sense of context of his experiments with the Phase Shifting Pulse Gate, even if he won't admit to them. I'm wondering whether this has any sort of ramifications to those pieces that Pulse Gate ended up directly informing, such as *Four Organs* or "Phase Patterns"? It seems like the transition from the Gate to those pieces another iteration of the same transition from the tape phasing works to those that use acoustic instruments. Reich says something about this in "End to Electronics" but maybe it was largely perpetuated by an abandonment of technoutopian ideas. --Andy H-D

"Perceptible Processes in Reich's Ostinati: Arch Form and Multiple Downbeats in Music for Eighteen Musicians"

- Brad Osborn (University of Washington)

My presentation attends to two parameters of Reich's ostinati in *Music for Eighteen Musicians*, emphasizing the difference between score-based and aural approaches to analysis. First, I examine the arch form made evident by measuring the relative lengths of the ostinati [1-2-4-2-1 measures] that make up each section. In these sections, [I, IIIa, IIIb, IV, VI, VII, VIII, XI] Reich begins by using a one-measure ostinato, expands that ostinato to two measures, expands again to four measures in the middle section, and then reverses the process. In the score, Reich encloses each ostinato with repeat signs, never wavering from the notated 6/4 pattern. However what interests me more is how listeners aurally determine the length of an ostinato without visually counting the measures between repeat signs. Secondly, I examine the perceptual and kinesthetic effects of multiple downbeats in Reich's ostinati (found in sections II, IIIb, V, VI, VIII, IX). I am interested in how listeners recognize a downbeat, that is, the beginning of some perceptual unit. Through Reich's process of substituting beats for rests, a listener's hearing of these multiple downbeats may evolve with the "perceptible process" itself.

Thanks for pointing out the arch-form thing...it relates to my presentation as well, and I'm glad to see that I wasn't just imagining the things I was hearing.

There's a guy named Mike Robbins (CalArts grad like myself) who are one of the original members of "Eighteen Squared" that may be worth talking to about the arch form thing. I got to join in with them (playing piano 4) this past spring and the ABCDCBA thing was all over the place, like your paper showed. Mike is trained both in classical and West African Drumming and is quite adamant about playing the piece using his custom-made score. He basically has the whole piece memorized and condensed the score into 1 page per section -- quite a feat.

I don't want to seem like I'm tooting my own horn just because I played with them (I was probably the weakest link there when we did the performance) but they are GOOD -- probably the best I've ever heard Reich performed. They formed the group specifically to play his works, and it shows.

Myspace: www.myspace.com/18squared Video Sampler:
www.youtube.com/watch?v=Wq1r6buXtBc

Just talked to Mike -- he seems wary of copyright and legal issues at this point so he may not want to send stuff over right away. May be worth talking to, though...he has a library full of original live recordings which are all pretty good in terms of performance quality.

Mike: robbins_in_california@hotmail.com

(Not just for Brad but if anybody might be interested in recordings, performances, and performance practices regarding Reich works, he may be interested in talking.)

Ryan

"Samples and the Material they create in Steve Reich's City Life"

- Abigail Shupe (University of Western Ontario)

Steve Reich's later works pose certain challenges to analysts because of his move away from phasing techniques and processes. We do not have structural, analytical methods with which to analyze his recent pieces or many other late 20th-century styles. *City Life*, written in 1995, displays some of Reich's later stylistic characteristics, such as a lack of phasing, a repetitive texture, diatonic or consonant harmonic material, and the combination of electronic and sample sounds with an acoustic ensemble. Though *City Life* is not a phase piece, it has a coherent structure that could be understood by the listener much in the same way he intends audiences to hear his processes in earlier pieces. This aural understanding was important to Reich's compositional process in the 1960's and 1970's, however, the same phasing or additive process is not identifiable when listening to recent works, leaving the audience to wonder what 'process' they should attempt to follow. Reich draws on sampled sounds, speech, and ambient noises to compose material in a technique similar to that of *Different Trains*. By exploring the ways in which Reich manipulates samples and material that they generate, I will demonstrate how sampled sounds bring structure to each movement, and to the piece as a whole. I will examine how Reich excludes identity from his samples to create a non-dated, nonspecific "city life" soundscape.

Thanks for a really interesting paper – I'm wondering whether other listeners mishear (as I do) the word 'techno' repeated over and over again in the 'Can't take no mo' section? Was this a deliberate ploy on Reich's part – maybe an ironic homage to a genre which had been happily plundering Reich's music around this time? - Pwyll

Friday Immersion Session – Perspectives on Temporality

"Becoming Temporal and Entropic: The aesthetics of time in Tenney's Having Never Written a Note for Percussion and Robert Smithson's earth work"

- Joseph Di Ponio

James Tenney's *Having Never Written a Note for Percussion* from the *Postal Pieces* and the Robert Smithson's earthworks share a temporal space that is removed from issues of narrative that are dependent on the datability of time. Neither is concerned with marking time into discrete sections nor is importance placed on beginnings or endings. Instead, these works function in a sort of primordial time that Heidegger refers to as "the temporal." Temporality is not governed by indexical relationships but by qualities of becoming and entropy.

The relationship between Tenney's *Having Never Written a Note for Percussion* and Smithson's earthworks is that both present an unknown narrative that simultaneously arises from, and recedes into, a temporal landscape and is never fully formed. They function as temporal matter and as such, are engaged in a process of simultaneous becoming and entropy. The beauty of these works resides in the mystery of the unknown that is presented by becoming temporal and entropic.

Very interesting paper. Do you feel that, since you acknowledge a climax in the Tenney, the decrescendo to silence *does* represent some form of closure to the piece? - Richard Glover

Response: This is, indeed, a complicated question. I'm not sure that the decrescendo to silence is enough to represent closure. However, because the silence at the end of the piece is telegraphed, to a certain degree, by the decrescendo, it could be argued that an expectation of an ending is presented to us. Still, this decrescendo does not happen within a context of structured time so it is possible that the fulfillment of our expectation could be delayed infinitely. I suppose that if closure is felt, it is only felt after the fact and upon reflection. In other words, a feeling of finality is not contextualized, absolutely, in the temporal landscape. - Joseph Di Ponio

"Revisiting temporality in minimalism"

- Tereza Havelkova (Institute of Musicology, Charles University in Prague)

Temporality has for long been one of the features considered to characterize the musical minimalism. Jonathan Kramer famously chose minimalist pieces to exemplify his category of "vertical" time, which he perceived as a radical instance of nonlinear temporality. Minimalist music has commonly been associated with the experience of "being in the present," of arrested time and timelessness, and it is in terms of perception of time that minimalism has most often been contrasted with both classical and modern music. In my paper, I will revisit the issue of temporality and minimalism, and contest

some of the common assumptions that pertain to it. I want to demonstrate the necessity to move beyond Kramer's classifications, and seek to complicate the clear-cut binaries that theories of temporality tend to construct. One of the ways in which I intend to do this is by confronting Kramer's theory with a more recent take on musical time by Raymond Monelle (*The Sense of Music*, 2000). I also propose to reread Michael Fried's notorious essay "Art and Objecthood" (1967), and rethink the relationship between visual and musical minimalism in relation to temporality. My aim is to argue that it is in terms of perception of time and movement that early minimalism can best be distinguished from its later and more broadly conceived incarnations. To make my point, I will bring in examples from the work of the Dutch composer Louis Andriessen, who made perception of musical time one of his central compositional concerns, and from the work of the "Czech minimalists" (Smolka, Pudlak and others), which represents the margins of minimalism and is thus well suited to be the testing ground for some more general claims.

"David Borden's Double Portrait: Minimalist Aesthetic With Linear Time"

- R. Andrew Lee (University of Missouri-Kansas City)

When it comes to describing the listening experience of minimalist work, a paradox arises—while words such as static seem most apt, they also deny both the changes that take place and any overarching structure. To resolve this, Jonathan Kramer has developed perhaps the most appropriate terminology when he describes such pieces as existing in vertical time. In vertical time, memory and expectation, and thus the past and the future, are thwarted in favor of an extended present. Within this extended present, the listener is able to explore the sonorities freely, without any feeling of being guided through the piece.

Postminimalist composers, however, moved away from vertical time as they integrated aspects of melody, harmony, and form with minimalist features such as repetition and limited musical material. While these works tend to sound similar to their minimalist counterparts, the listening experience is markedly different. David Borden's *Double Portrait* (1987) is a work that demonstrates this contrast. The influence of minimalism can be heard in the sparsity of musical materials and in the steady stream of sixteenth notes. Yet on the large scale, there is an almost ceaseless forward drive to the coda, which becomes increasingly urgent as the piece progresses. An analysis of the metrical dissonance, melodic and harmonic implications, contrapuntal devices and their interaction with the overall structure will show how Borden is able to create this forward momentum, and thus linear time, in *Double Portrait* while still reflecting the influence of minimalism.

I am intrigued by your invocation of contrapuntal procedures as a means of articulating linear-formal time in the piece. What is the nature of this counterpoint? Is it simply the simultaneous recognition of multiple melodic lines, or a more integrated texture where the lines work in connection with one another (i.e. respond to one another)? -Gretchen Horlacher

Have you found any long-range counterpoint (that spans the entire piece perhaps?) that that mirrors the more local counterpoint you mention? -Sean Atkinson

'Double Portrait' appears to shift between post-minimal and post-tonal aesthetics, with 'traditional' minimal elements playing no more than a residual role. I wonder whether the title attempts to evoke this, albeit indirectly? - Pwyll

Thanks for discussing David Borden's music and taking it seriously. I think "Double Portrait" is a wonderful piece and deserves more performances. You mentioned "The Continuing Story of Counterpoint," a sprawling ongoing sonorous feast, parts of which I like very much. Your comments suggest to me there is a literature about it. Details? I just looked a bit on the web and found many references to the work (no surprise) but I'm wondering what you recommend. Thanks—Neely Bruce

"A Personal Encounter with the Shaman of Vertical Temporality: Charlemagne Palestine"

- Phillip Henderson

This paper highlights the dichotomy of experiencing a personal journey while listening to vertical music. As a child I learned self-hypnosis to achieve relaxation. I became more accomplished at trance induction and made tremendous astral journeys. My memories of this were triggered at a recent performance by Charlemagne Palestine who could be said to have initiated me on a journey in nonordinary reality (Harner 1990 p.44). In *The Way of the Shaman* (Harner 1990) Michael Harner describes the rituals he undertook with Jivaroan people during the 1950s. He describes learning methods of dancing, drumming and trance. Harner's account relates directly because Charlemagne is seen as something of a Shaman himself. Not less than by the authors of Antonio Guzman's biography of the artist Charlemagne Palestine: *Sacred Bordello* (Guzman 2003). The book includes vivid descriptions of Charlemagne's meditations during lengthy performances. There are details of his ritual method, his family of toy animals and the brightly coloured clothes he wears to perform. These and many other aspects of his work are typical tools or symbols of Shamanism.

Charlemagne performed Schlingen-Blängen at the organ of St. Giles-in-the-fields church, London on 18th October 2008. The audience entered the building as Charlemagne suspended drones on an interval of a fifth. The keys were held with little wedges and he continued to add more notes to the chord. From afternoon to evening the audience absorbed the increasingly loud continual chant issued by the pipes. He intermittently played a slow melodic line of descending tones and occasionally pulled out additional stops. By slowly pulling the stops Charlemagne generated electric vibrations between new tiny intervals. He caused them to ripple climactically allowing vibrant colour to leap through the organ. The combined frequencies pulsated with alarming clarity passing through me and shattering my cold concept of time. I wasn't expecting an astral journey at the church but I certainly became fluid again.

I have avoided describing this work in clock terms or as a linear procession of moments thanks to the late Jonathan Kramer who explained this insightful method of understanding temporally challenging music in his book *The Time of Music* (Kramer 1988).

A performance needs to start and stop, but in the absence of an overriding linearity, starting and stopping become arbitrary. The performance might have started, or stopped, earlier or later. Because the music is substantially unchanged throughout, and because it is without distinct gestures, we listen to an arbitrarily bounded segment of a potentially eternal continuum. The present that the work extends suggests itself as infinite. Past and future disappear as everything in the piece belongs within the horizon of now. (Kramer 1988 p.386)

By performing the drone, Charlemagne channelled a timeless continuum. Nevertheless I experienced a journey that I can recall in sequence. The work climaxed with an incredible cracking crunch in which he seems to have sounded every note possible. The noise erupted in short, sudden bursts and then broke through the perfect fifth. This was a very grounding experience that suddenly pulled me back into the church from which I had travelled. Had I taken a journey in the eternal continuum? And if so, am I still there?

Quotations;

Ingram Marshall,

The rough edges of the impure sound waves emanating from the metal organ pipes added richness that made the experience somehow more "musical" than the rarefied atmosphere of the filtered electronic environments. (Marshall 2009)

Jonathan Kramer,

A performance needs to start and stop, but in the absence of an overriding linearity, starting and stopping become arbitrary. The performance might have started, or stopped, earlier or later. Because the music is substantially unchanged throughout, and because it is without distinct gestures, we listen to an arbitrarily bounded segment of a potentially eternal continuum. The present that the work extends suggests itself as infinite. Past and future disappear as everything in the piece belongs within the horizon of now. (Kramer 1988 p.386)

Kira Van Deusen,

We contact the inner spiritual ear through music. But how exactly does this work? Timbre plays an enormous role in Turkic music and allows the listener to go deeper into the spiritual realm, opening this inner ear. Timbral variations are vital to shamanic music, calling attention to minute sound details. (Van Deusen 2003 p.111)

Charlemagne Palestine,

The people around me who were watching and listening became a blur of energy to me. The things that looked at me straight in the eye with this sense of constant 'presentness' were these creatures that were sitting or hanging from my instrument... All of a sudden, all of the things around me become a blur, except that I became very conscious of space itself. The air became more important than the room or the things in it; and together with my animals we would experience this eternity of air. (Pouncey from Guzman 2003 p.129)

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I wonder if you've considered Gilbert Rouget's *Music and Trance* or Judith Becker's *Deep Listener's*. In my work with Young and the idea of transcendence, Rouget's book in particular has been interesting, although his brief discussion of trance vs. ecstasy, and his decision to casually dispense with the latter, makes me wonder if the music of artists like Palestine (and Young) might tell us something new about the relationship between music and "altered states," and about how to define those "altered states." Thank you for your presentation! -David McCarthy

"La Monte Young: Time and identity of the work"

- Jean-Pierre Caron

In the present paper we shall examine some applications and implications of the key concepts of ordinality and cardinality in La Monte Young's work. Ordinality stands for ordinal organizations, that is, the fact that events or sounds should succeed one another. Cardinality stands for events or sounds that can occur simultaneously, independently of temporal succession. In Young's work, cardinality would have freed the musical work from the physiognomy of a fixed organism, as in traditional musical pieces. In works such as *The Four Dreams of China* or *The Tortoise*, his dreams and journeys, the work's identity isn't based on a fixed succession of events, but on the sets of frequencies and rules for their intonation available for the performers. Yet, ordinality isn't absent from Young's work, showing itself prominently in his magnum opus *The well-tuned piano*, where these two categories overlap. Thus, we could understand this work as a big algorithm of concurrent frequencies, inside which are inserted specific ordinal sequences of these frequencies, which give way to the themes, melodies, and

successive formations of the piece. It is our proposal to read Young's work as an interplay of these categories, in which there would be points of greater or lesser "closing" of the musical work. This unstable identity would redefine the role of memory, which becomes the proper place where the work exists as finished, in spite of the many different versions that may have existed on performance.

I wonder if the ordinality/cardinality distinction is related somehow to Young's practice of giving each performance of his major works its own title--suggesting perhaps a kind of Platonic duality ("real" and "ideal").. --J. Grimshaw

Yes, that would certainly be a way to put it. And, as we have already discussed, probably suits La Monte's overall Platonic positions. The Idea and its instantiations. Only this doesn't really solve the problem of determining where's the musical work, does it? One could still ask whether each instantiation would be a separate work, or if the overall Idea would satisfy the conditions for being considered the work itself... That's why I prefer to think in non-platonic terms... the work as a *procedure* that will then have its consequences (the performance, the reception, etc...) in the world. That means that different works such as indeterminate pieces, full written down scores, action score, etc... would then differ not essentially, but only in it's constitutive procedural rules. But that is something that I'm still working on.... Thank you, Jeremy. -- J.-P. Caron

Saturday Immersion Session - Perspectives on Process

"Process as Means and End in Minimalist and Post-Minimalist Music"

- Galen Brown

One of the major defining elements of musical Minimalism has been the use of process—phasing in the early work of Steve Reich, additive processes in Philip Glass's music, repetition with non-systematic changes in John Adams, underlying systematic but non-audible processes in David Lang, and even the process of prolonged stasis in drone-based music by composers like La Monte Young. And yet these processes are employed in fundamentally different ways. For Steve Reich's "Music as a Gradual Process" the process itself, and the audible working out of that process, provide a significant part of the aesthetic content of the piece. The audience hears the process, understands it, and is specifically listening to the result of the process as the result of a process. In a piece like David Lang's "Cheating Lying and Stealing" the process as perceived by the audience is no more than "each repetition is similar but not quite the same." The existence of an underlying musical process is evident, and the knowledge that processes are driving musical content provide part of the aesthetic experience, but the bulk of the musical experience derives from the surface-level musicality. In a piece like John Adams's "Harmonielehre," process per se seems absent—repetition is a stylistic trope but the logic of the music is not driven by underlying mathematical systems any more than any other music that happens to employ repetition. I will argue

that these different approaches to musical process fall along a continuum between conceptualism and traditional musical teleology, and represent a means to an aesthetic end in some cases and an aesthetic end in themselves in other cases. From this perspective we will be able to derive useful delineations between Minimalist and Post-minimalist music, discuss the relevance of composers' intentions and extramusical communications with the audience, and identify areas for further study.

Since the Time Curve Preludes came up a few times in discussion, I thought I'd add this little quote from an email that I received from Duckworth, "The processes I use don't take center stage, but rather hover in the background, controlling the unfolding of the music, but not becoming the center of attention." --Andy Lee

Can you provide a more complete citation of that? Date received, etc.? I'd like to include that in a more complete version of this paper. -Galen Brown

"Prime Times"

- Paul Epstein

Among the defining characteristics of minimalism are the use of strict and - in theory at least - clearly audible processes, repetition of short patterns, and limited pitch collections. The loosening, modification, or abandonment of any of these strictures may mark the movement into postminimalism.

In my own development, two primary objectives have been 1) to increase significantly the period of repetition while continuing to limit the materials for a composition to a single pattern or set of patterns; and 2) to retain minimalism's rigorous use of system while no longer placing a premium on making the process readily perceivable. I found the key to both of these goals in Steve Reich's Piano Phase. Reich's seminal minimalist work is noted for its stunning use of the phasing process, but it is at least as significant for two structural features of the pattern that forms the entire basis for the opening section of the piece. The first is economy of means: a non-repeating melodic pattern of twelve notes is generated from only five pitches by alternating, or interleaving, a 3-note figure and a 2-note figure. The second is completeness: because the 3-note and 2-note figures are prime to each other, each note of one figure is followed by each note of the other before the entire pattern repeats. That is, every possible dyad consisting of one note of each figure occurs once and only once in the 12-note pattern.

I propose to discuss and illustrate my use of techniques derived from Piano Phase to generate substantially longer periods of repetition, ultimately equal to or greater than the length of the entire composition. The common thread in these techniques - which include but are not limited to interleaving - is the use of multiple patterns that are prime to one another in length. Increasing the length of these component patterns beyond the 3x2 of Piano Phase brings a disproportionate increase in the length of the resulting composite pattern. Interleaved patterns of 7 and 5 notes, for example, yield a melodic cycle of 70 notes; 11 and 7 yield 154. Substantial increases in the lengths of component patterns have involved numerous departures from the Reichian model. Some of these are: Repetition of notes within a component pattern. Use of the same notes in different

component patterns. Inclusion of rests as well as notes in patterns. Interleaving of more than two patterns in a variety of configurations. Interleaving of rhythmic patterns independently of pitch. Combination of patterns without interleaving.

Musical illustrations for the talk will be drawn from works composed between 1986 and 2008. The most recent work, *Prime Times 2*, combines twelve rhythmic cycles ranging in length from 3 to 37 notes.

"Beyond Drumming: Process in the Music of David Lang"

- Kevin Lewis (College-Conservatory of Music, University of Cincinnati)

Steve Reich's innovative phase-shifting technique and his music of the 1960's and early 1970's established the use of process as a hallmark of musical minimalism. Through process, he created works that essentially composed themselves and, in a grand departure from the complex construction of serialist music, presented their inner workings in an obvious and audible manner. Though the use of "gradual process" in Reich's music was short-lived (at least in its original meaning), various types of systemic series and operations persisted throughout his music and that of Philip Glass and other minimalist composers. As minimalism quickly evolved and its works of extreme length and static activity ceded to more accessible (yet still minimalistic) works of shorter durations, greater activity and diversity, and expanded use of melody and harmony, the use of process as a primary compositional element persisted and underwent its own development and expansion in the post-minimalist and totalist music of the 1980's to the present. The title of this paper is a reference both to Reich's final use of gradual process in his seminal *Drumming* (1970-71) and to the expanded use of process in the recent works of Bang on a Can co-founder David Lang, who has contributed several important works to the percussion repertoire. The study will examine the use of process in two significant pieces. *The Anvil Chorus* (1991) has quickly been canonized in the solo percussion repertoire and consistently appears on the programs of the world's top performers, and *The So-Called Laws of Nature* (2001-02), composed for the hip and original New York-based quartet *Sō Percussion*, utilizes a multitude of processes to achieve extreme complexity while still appealing to the zeal of the common audience.

The processes used in these three works may be likened in their autonomous qualities and establishment of form and structure; however, they are employed in manners that achieve completely different means. The gradual process of *Drumming* (and works before it) embraces transparency, allowing the listener to feel the music move – and predict where it is going; Lang's processes, and his stratification of several simultaneous operations, functions dissimilarly, creating metrical ambiguity and denying expectations.

The identification and thorough analysis of the processes created and employed in these pieces are not just beneficial to the percussionist, as most of Lang's compositional techniques found here are common throughout much of his recent catalog. It is hoped that this study will provide a better understanding of the inner mechanisms of his music and aid both the performer and listener to better experience his works.

"Metal as a Gradual Process: Minimalist Rhythmic Practices in the Music of Dream Theater"

- Greg McCandless (Florida State University)

While the popular genres of progressive rock and heavy metal have received significant scholarly attention in the fields of musicology and music theory, discussions of the syncretic subgenre of progressive metal are rare. A significant scholarly contribution to the analysis of progressive metal is Jonathan Pieslak's 2007 article on Meshuggah, which does much to delimit the stylistic boundaries of the subgenre, noting the importance placed by progressive metal bands and their fans on the rhythmic and metrical complexity of the music. However, Dream Theater, one of the most visible and commercially successful progressive metal bands, has received little scholarly attention to this point. The aim of this paper is to describe Dream Theater's unique adaptations of minimalist rhythmic practices in their 2005 song "Sacrificed Sons," which include variants of additive process and beat-class rotation. This analysis posits the reconciliation between linear additive process and a traditional rock phrase structure (ABAC) in the first subsection of the song's instrumental bridge, which additionally involves the experience of what Jonathan Kramer calls "multiply-directed time." Other similar examples from Dream Theater's oeuvre are addressed as well, including 2007's "Constant Motion," whose introduction and conclusion constitute an interrupted large-scale additive structure. Overall, these temporally-complex examples demonstrate a sustained parallel between the band's treatment of rhythm and meter and the rhythmic techniques of minimalist composers.

Sunday Immersion Session - Other Perspectives

"Phasing and Form"

- Ryan Tanaka

Abstract/Introduction: Largely popularized by Steve Reich's "phasing" works (Piano Phase [1972], Violin Phase [1967], etc.), phasing techniques have now become a common methodology within contemporary music circles as a way to generate musical ideas from a limited amount of source materials. This article attempts to establish generalizations based on observations of the technique, both in theory and in practice. The theories listed here have been shown to be reproducible and consistent regardless of its musical context -- therefore can be reasonably concluded that the generative method of phasing adheres to certain technical rules that make it possible to understand it in terms of a formulaic process. Click on the links for a more detailed look at each idea:

1) [Phasing as De-Synchronization](#): Musical phasing is caused by a de-synchronization in tempo (measured in relative terms) with the faster instrument pulling ahead of its slower counter-part. Reich has frequently notated "accelerate very slightly" in his work that involve phasing -- however, the phenomenon can actually be achieved in more ways than one, including the second performer slowing down, or the two performers trading off in regards to who would be the next one to "pull ahead" to the next pattern combination.

2) [Phasing and Syncopation](#): When phasing from one pattern combination to the next between two instruments, there exists a point in which the instruments' patterns are in complete rhythmic separation from one another, creating an identical syncopated pattern. The tensions that phasing techniques produce are often correlated to harmonic consonance and dissonance, where the moment of relaxation arrives when the patterns "lock" into each other after a period of rhythmic disarray. Labeling a fully syncopated rhythm as the being the most "dissonant" while a fully unison rhythm as the most "consonant", a spectrum can be drawn between the two polarities with the phasing process helping to arrive and depart between the two.

3) [Phasing and the Palindrome](#): Cycling through all possible pattern combinations using the phasing technique will naturally produce a palindromic form, with its second half mirroring the first as an inversion of itself. The phasing technique in its pure form implies a form of relative dualism in which the process causes the two instrumentalists to trade "roles" with one another.

This article will use simplified 1-to-4 note examples as a way to clarify the mechanics behind the process of phasing, and will be using Steve Reich's Piano Phase as a primary musical example of the technique put into a performance context.

"Maximizing Minimalism in Michael Torke's Four Proverbs"

- Kathy Biddick Smith

Michael Torke's **Four Proverbs** (1993) is a work for soprano and small ensemble that draws its text from the Bible's book of Proverbs. Throughout the piece, Torke employs a fixed relationship between text and pitch, attaching particular syllables to particular notes. He then rearranges the notes while maintaining the text-to-pitch relationship, which allows each proverb's meaning to move in and out of focus.

In the first movement, "Better a Dish," Torke uses three processes, all staying within the parameters of the fixed relationship established in the opening statement. In the first process, the order of the complete proverb is retained but the durations of some of the syllables are adjusted, allowing listeners to familiarize themselves with the sequence and text-note relationship of the proverb. In the second process, Torke creates the impression of phasing with echoes. Finally, in the third process, the proverb is built from the last word to the first, producing an expectation on the part of the listener to eventually achieve the completed proverb. These three easy-to-follow processes acquaint the listener with the fixed pitch-text relationship technique, which Torke then uses in more complex ways in the remainder of the movement.

"Eric Richards and the Empirical Search for Truth and Beauty"

- Eric Smigel (San Diego State University)

Much as an artist or naturalist might sketch an object from different angles to gain familiarity with its visual features, so does Richards conceive of the tape recorder as a

tool to facilitate close and repeated listening of a sound or collection of sounds that will serve as the impetus for a composition.

The emergence of photography and tape recording, by providing what appears to be a fixed document of a perceptual moment, prompted many artists and composers to re-examine the nature of perception. In reality, devices like the camera and tape recorder objectify not images and sounds, but our sensory experience.

Ezra Pound defines a poetic image as a "radiant node or cluster...a vortex, from which, and through which, and into which, ideas are constantly rushing." Reflecting a modern--or, perhaps, ancient--sensibility that emerged--or was reclaimed--alongside developments in technology, Eric Richards creates homogeneous and kaleidoscopic works that present constantly shifting perspectives of a sonic image.

When Richards invokes "holograms," it sounds like perhaps he is referring to physicist David Bohm's holographic paradigm. The idea, as I understand it, is that a holographic film (and some say the human brain) encodes an image in such a way that information for the entire image is contained everywhere on the film, rather than one piece of data being contained in a particular place. If the film is broken into smaller pieces, each piece does not produce part of the image; rather, it produces the whole image at lower resolution. -J. Grimshaw

"The String Theory of Repetition in Sound: From the mid-20th century to the Post digital"

- Greg Shapley (University of Technology, Sydney)

How can String Theory (one of the 'theories of everything') act as a metaphor for repetition in music?

How do existing definitions of minimalism (concerning process, tonality, pulse, non-Western influences etc.) affect future applications of the term, do they act as a foundation, or are they inhibiting?

Are all definitions of minimalism based on thresholds (either meeting the criteria or not) or are there other ways (looking more broadly for minimalist tendencies for instance)?

What are minimalism's serial beginnings and how can they help us to devise a more critically inclusive history (and future) of minimalism?

What is post-digital sound (granular synthesis, glitch, databending etc.), what are its influences and where does minimalism fit into its ancestry (and indeed present)?

Does minimalism's link to the post-digital allow any insight into interpreting other types of repetitive musics (such as rock/jazz/non-Western traditional) and indeed repetition in sound in general?

I wonder how Paul Lansky would figure into this story, since some of his works involving granular synthesis, linear predictive coding, etc., lean towards minimalism. (I also wonder what you would make of his recent turn away from electronics.) -J. Grimshaw

I think that there is a very strong link between the minimalist's and the post-digital artists (which is a perfect term for it, by the way). I'm not sure if you'd classify the spectral analysis guys like Tristan Murail as post-digital, but the kind of stuff they're is almost exactly the same as Steve Reich's 1968 conceptual piece "Slow Motion Music". The technology just wasn't there yet. This brings up all sort of business between pulse and drone minimalism, I suppose. -- Andy H-D

.. I think many things that aren't obviously post-digital can now be included under this umbrella. It is almost as if the post-digital (which has been around now since at least before the mid-nineties) has undergone a transition from a technological descriptor to a conceptual one. In this way, an analogue instrument can now be played in a post-digital way. Greg S.

.. It all got a bit garbled there toward the end because I ran out of time (bad planning on my part), but in another (not so) quantum leap I wanted to point out the link between the post-digital sound, mid-eighties sound art, and minimalism. Sound art was closely tied to the visual arts and installation and as such more often than not had a minimalist aesthetic (if you want an audience to have consistent experience of an installed work the material cannot be teleological but should still be interesting enough to hold attention and is thus almost by definition, minimalist). This highly untheorized area (in a recent book review by Christopher Cox he stated that only two substantial books had been written on the subject!) provides an interesting connection between 'traditional' minimalism and the post-digital. Greg Shapley

Here are some references on the post-digital:

Cascone, K. (2000) 'The Aesthetics of Failure: 'Post Digital' Tendencies in Contemporary Computer Music', *Computer Music Journal* 24(4)

Marclay, C. & Tone, Y. (2004) 'Record, CD, Analog, Digital', *Audio Culture: Readings in modern music*. Christopher Cox & Daniel Warner (eds.). New York: Continuum, pp 341-347.

Thomson, P. (2004) 'Atoms and Errors: Towards a history and aesthetics of microsound', *Organised Sound* 9(2): 207-218.

Vanhanen, J. (2003) 'Virtual Sound: Examining Glitch and Production', *Contemporary Music Review* 22(4): 45-52.

Whitelaw, M. (2003) 'Sound Particles and Microsonic Materialism', *Contemporary Music Review* 22(4): 93-100.

Roads, C. (2004) *Microsound*, MIT Press.

(Greg Shapley)