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ALTERNATE MINIMALISMS:
REPETITION, OBJECTIVITY, AND PROCESS IN THE AGE OF RECORDING

by

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of the requirements for the
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Abstract

This thesis examines the core concepts of early minimalism and the ways that they were influenced by recording as a medium of musical creation. The first chapter considers early minimalism's historical lineage as the narrative has been passed down by music scholars, noting over-arching trends and problems of exclusion and misunderstanding inherent within it. Having established the myriad of concepts at the core of the early minimalist movement, the second chapter examines the recording medium's effect on art music performance, noting trends in repetition, objectivity, and process that are represented within minimalism itself. With these ideas in mind, the idea of "post-minimalism" is interrogated, proposing that a music for the concert hall is not the natural development of the early minimalists' expansive mission. In the third chapter, analysis of one iconic late-twentieth century musical style, techno music, demonstrates that it is fundamentally of the same artistic spirit as the early minimalists and an alternate manifestation of Minimal art. Ultimately, early minimalism and techno are "alternate minimalisms" of the age of the recording, referencing and embodying the musical consciousness of the twentieth century.

Introduction

The current period in music history might best be understood as a product of the age of recording. While it may be taken for granted that recording has impacted how we produce and receive music, the recording medium's effect on the very nature of musical art itself is one that cannot be appreciated enough. Representing one of the most fundamental changes in all of music history, the recording medium wreaked havoc on all that preceded it and has continued to shape what has happened after. Not since the invention of handwritten notation has one technological development caused so much change in what it means to create and receive music.

Recording technology's effect on musical culture has been embodied by much of the musical material created under its influence. In this thesis, I study two specific manifestations of this influence, noting the ways that they reflect a new musical consciousness and a new understanding for what music could be in a world where it was no longer solely performed in person. The first of these manifestations—here referred to as “classic” or “early minimalism”—represents the first blatant example of this influence on the art music community. While that community had historically valued live, expressive performance, the early minimalists turned directly towards a style of playing that aimed to remove one's subjective experience from the sounding material. The early minimalists essentially embarked on an expansive mission outwards, commenting on and representing their surrounding musical culture while creating a music that incorporated recent developments in technology. The second of these manifestations, techno, is an extreme extension of many of the same concepts, yet intended for a new listening audience entirely unconcerned with “art music” as a musical style. Both manifestations

are representatives of what I call Minimal art, a movement that took shape throughout a wide variety of musical idioms of the recording age. As demonstrated by the driving concepts of the early minimalists and many techno producers, Minimal art is governed by pervasive elements of repetition, a preference for objectivity, and an interest in process to guide the compositional shape of a given piece. These elements themselves point to the fundamental changes of musical culture in the age of recording. While many have noted the early minimalists' use of these concepts, very few have discussed their manifestations outside of the classical world.

While early minimalism and techno both embody the idea of Minimal art, they are not part of the same direct lineage. Thus, while many academics prefer to discuss one “minimalist” movement, I find it more revealing to consider early minimalism and techno as distinct, yet broadly unified, parallel developments. One was not technically necessary for the other to occur, yet both relied on the recording medium as a compositional impetus to draw from and comment on. Although classic minimalism and techno both reflect musical trends of the recording age, each style pulls from different influences and targets different listening audiences entirely. Therefore, classic minimalism and techno are “alternate minimalisms,” unique exhibitions of the musical culture of the latter half of the twentieth century. By examining these two distinct musical idioms side-by-side, we can understand more about this musical culture, the musics themselves, and the plethora of other genres that may represent alternate manifestations of Minimal art.

This examination will look at these topics from a variety of angles, as I outline below. I will first conduct a systematic study of early minimalism, synthesizing multiple texts on the topic to come to a succinct understanding of how the movement progressed,

what its core concepts were, and what is often left out in discussion of the movement.

With these building blocks in place, I will examine the changes wrought by the recording medium on art music of the twentieth century and the many ways these were manifested in the music of the early minimalists. Finally, I will explore the variety of ways that techno music, a style that has been unfairly under-examined in much of academia, expressed many of the same concepts and transmitted them to a new generation of music creators and listeners. Ultimately, as one “alternate minimalism” of many, I hope that my examination of techno will lead to further research on Minimal art of the twentieth century and a wider acceptance of contemporary musical styles as meaningful art to be studied seriously.

Chapter One

Early Minimalism: A Radical Art Music

Music historians have struggled to capture the essence of minimalism, a school of compositional thought that originated in the early 1960's. The language typically used to describe the Western classical tradition falls apart when attempting to define this music and its contemporary offshoots, where emphases on melody, harmony and narrativity are traded for manipulation of texture and perceptual illusions. Functionally, minimalism reached outward and strove for accessibility, as opposed to the increasingly stuffy and intentionally difficult avant-garde music that was being produced in the first half of the century. Perhaps most notably, minimalism closed the gap between "high art" and "low art" in an unprecedentedly effective manner. While most of the scholarship on minimalism has examined the style from the top-down, analyzing the ways it raised common elements of "low art" to the plane of "high art," few have analyzed it from the opposite direction, treating its myriad of vernacular influences as on an equal footing with the Western classical lineage that the composers represented. In this thesis, I undergo such an analysis, coming to a greater understanding of how minimalism interacted with a profoundly changed musical culture.

As both a logical extension of the experimental compositional techniques of the time and a complete rejection of many of these techniques, minimalism redirected the trajectory of Western music. With minimalism, the role of the composer changed. A new type of composer appeared who made use of the growing commercial music industry to carve out new pathways for success within the classical tradition and which made the system of "academic patronage" seem archaic and obsolete. The multiple ways in which

composers of this style mediated their interactions with audiences, from presentation to performance, pointed towards their awareness of their surrounding cultural environment. So effective were these new techniques that their repercussions are still felt today some fifty years later.

The aesthetic and philosophical ideals of minimalism in fact extend far beyond the historical narrative that has developed. As composer David Lang notes, minimalism “was a historic reaction to the sort of music which had a stranglehold on American musical institutions, and which none of us really liked...I look at minimalism...as being just the battleground that was necessary to remove those forces from power: not to obliterate them or destroy them, but...to loosen up the power structure in America.”¹ When academics fail to note the extensions of minimalism in the contemporary world—many of which do not fit into the standard concept of concert music—they fail to recognize the true impact of minimalism on the larger musical landscape. The destruction of power structures which minimalism instigated goes largely ignored when scholars continue to lock themselves in the box of (largely) academic concert music.

Through codifying the roles of four composers in the history of minimalism, music scholars have constructed a pervasive narrative of minimalism’s development and progress. In loosely-construed chronological order, La Monte Young, Terry Riley, Steve Reich, and Philip Glass are these four figures upon which scholarly attention has focused. In simply tracking the progression of these four composers we can see trends that lend themselves well to this type of narrative creation. While all four composers overlap in their relationships with electronics, improvisation and process, distinctions can also be

¹ Keith Potter, *Four Musical Minimalists: La Monte Young, Terry Riley, Steve Reich, Philip Glass* (New York: Cambridge University Press, 2000), 20.

made which heighten the plausibility of some narrative connection, such as a gradual increase in commercial success and the slow introduction of new techniques to pre-existing compositional philosophies. Yet, as I hope to demonstrate, holding these composers in the regard that we do and failing to note both their surrounding contemporary musical cultures and the logical extensions of their musical ideals in settings other than the classical world reduces the strides they took and goes against the entire theoretical endgame of minimalism in the first place.

In this chapter, I present a succinct history of early minimalism as it has been recorded and note larger trends within both this narrative and the minimalist movement as a whole. In doing so, I examine and interrogate the relationships between the four noted composers (Young-Riley-Reich-Glass) as they have been historically presented, challenging the notion of chronological lineage through the four and stressing that influence goes both ways. It is my hope that in investigating what it is about these four that has placed them in their respective historical positions, we can come to a greater understanding of the impact of the minimalist movement on larger trends within the Western musical landscape. Noting these trends will serve the larger goal of this project, that of connecting the minimalist movement to a modern school of compositional thought, one that continues to break down the “high art”/“low art” dichotomy in the contemporary music world and is often ignored by scholars focused on the classical tradition.

The Narrative

It would be unfair and misleading to suggest a Minimalist “genealogy” from Young to Riley to Reich to Glass, but one might suggest a line of transmission of influence in that chronological order, perhaps the inverse order of their current notoriety. – Edward Strickland²

Among the scholarship on minimalism, three texts stand out: Wim Mertens’ *American Minimal Music*, Edward Strickland’s *Minimalism: Origins*, and Keith Potter’s *Four Musical Minimalists*.³ Each of these texts is notable for contributing to the narrative of minimalism in their own unique ways, yet to similar ends. Mertens’ text, originally published in 1980, was the first full-length book on the topic, codifying the Young-Riley-Reich-Glass grouping that had previously been alluded to in a chapter of British composer Michael Nyman’s 1974 book, *Experimental Music: Cage and Beyond*. In comparison to the later writings of Strickland and Potter, Mertens’ text is reductive and orderly. The author dedicates one chapter to each of the four composers followed by a series of chapters which delve into over-arching topics such as “Basic concepts of minimal music,” “Historical developments,” and “Ideology.” While these later chapters draw from writings from earlier composers and philosophers, the first four restrict themselves to citing the four composers themselves and specific details of their works.

Strickland’s work, published in 1993, takes a different approach, painting a picture of minimalism as a larger movement extending into the world of visual art. It makes mention of outside artists and figures involved in the movement while still generally maintaining focus on the four primary ones. Strickland differs from Mertens in

² Edward Strickland, *Minimalism: Origins* (Bloomington: Indiana University Press, 1993), 211.

³ Keith Potter, Kyle Gann, and Pwyll ap Sion, *The Ashgate Research Companion to Minimalist and Postminimalist Music* (Burlington: Ashgate, 2013), 10-1.

the manner that he presents his material, focusing his chapters on larger trends or historical moments rather than dedicating each to a specific composer. A greater sense of scope is conveyed in the way that Strickland focuses on interactions rather than individual achievements and in this way, Strickland's is the most atypical of the three texts.

Potter's *Four Musical Minimalists*, published in 2000, continues the expansive pursuits of Strickland's text yet in a manner that actually contributes to a further restricting of the narrative. This book is the most comprehensive in regards to each individual composer, with Potter giving in-depth analyses of particular works and conducting his own unique interviews, yet by returning to the format of Mertens' monograph and dedicating one chapter to each composer, he examines each composer in isolation and moves away from Strickland's broader depiction of interaction. If Strickland's text represented a radical step away from the reductive view of minimalism presented by Mertens, Potter's text represents a reactionary move back in Mertens' direction.

Taken in tandem, Strickland and Potter present a compelling picture of the minimalist movement, with the faults of Potter's emphasis on the individual balanced out by Strickland's turn towards a larger scope. Among both texts, as noted above, the general relationship between the four key composers is not depicted as one of collaboration but one of direct transmission of influence. Even Strickland, who feels free to abruptly jump around in his discussion rather than focusing on one composer at a time, notes a general flow of influence from Young to Riley to Reich and to Glass. What was this transmission of influence, according to these authors, and how was it to be

transferred in this codified order? The following gives a response to this question, surveying the general interactions and landmark pieces among the four composers as generally described in these three texts.

La Monte Young's *Trio for Strings* (1958) is generally marked as the first "minimalist" piece,⁴ although it sounds little like what would later be picked up by Riley, Reich and Glass. Essentially a lengthy abstraction of the serial twelve-tone technique, the piece consists almost entirely of long, sustained tones on the three instruments, which join together to form dissonant three-note chords held for an extraordinarily long period of time and separated by equally long periods of silence [**Example 1**]⁵. These unusually long tones reappeared throughout Young's career in the drone pieces that make up the bulk of his later work. While Mertens divides Young's career into three periods—explorations with serialism from 1956 to 1958, work with the Fluxus movement from 1959 to 1961, and an "actual repetitive period" from 1962 on⁶—Potter overtly disagrees. In *Four Musical Minimalists*, Potter interprets one long development "emerging from his discovery of long tones in the 1950s, and separated from this by a short period of more theatrical—but still crucially related—activities."⁷ Strickland similarly paints a picture of gradual transition from sustained tones to drones rather than one of distinct periods.⁸

What remains clear is that Young's *Trio* acted as a clear thesis statement of the musical experimentation in which he would engage in later highly-regarded "unfinished" works such as *The Well-Tuned Piano* (1964-73-81-present) and *The Tortoise, His*

⁴ Wim Mertens, *American Minimal Music* (New York: Alexander Broude Inc, 1983), 21; Strickland, *Minimalism: Origins*, 119; Potter, *Four Musical Minimalists*, 29.

⁵ Audio examples can be accessed at <<http://tinyurl.com/zv2yq96>>

⁶ Mertens, *American Minimal Music*, 20.

⁷ Potter, *Four Musical Minimalists*, 22.

⁸ Strickland, *Minimalism: Origins*, 153.

Dreams and Journeys (1964-present). Whether his post-Fluxus work is interpreted as a distinct period or the result of gradual development, it grows out of the concepts laid forth in his *Trio*. Yet, being aesthetically removed from the later works of Riley, Reich and Glass, one wonders how *Trio* could represent the start of an entire movement to which they belong. While neither Mertens, Strickland or Potter address this overtly, it seems that the significance of this work on influencing these three later composers lies in three characteristics: the robotic nature of performance (in which no vibrato is allowed and performers are instructed to remove their subjective experience from the sound), the interest in exploring continuous sound for a long duration of time, and the reliance on a small amount of musical material to make a much longer musical statement.

Young's influence on Terry Riley can be assumed by their contemporary enrollment at Berkeley and subsequent friendship. The two improvised together often, and one can imagine that Young's interest in modal pitch content and just intonation had an effect on Riley's own explorations with this material [**Example 2**]. Additionally, as Riley notes,

What La Monte introduced was this concept of not having to press ahead to create interest. He would wait for the music to take its own course. You start a long tone, that tone has its own life until it extinguishes, and then the next one starts. So it was this kind of Oriental patience that he introduced into the music which created a static form.⁹

The idea of "Oriental patience" points to another commonality between Young and Riley, a devoted interest in non-Western musics and cultures. In Young's case, Japanese *gagaku* and Indian classical music were deep influences on his *Trio*.¹⁰ All three authors make special note of the influence of Indian music on the works and lifestyles of both Young

⁹ William Duckworth, *Talking Music: Conversations with John Cage, Philip Glass, Laurie Anderson And 5 Generations of American Experimental Composers* (New York: Da Capo Press, 1999), 282.

¹⁰ Strickland, *Minimalism: Origins*, 151.

and Riley and their joint relationship with Hindustani classical musician Pandit Pran Nath.¹¹ The two composers actively engaged in the performance of Indian music and even appear together on Pandit Pran Nath's record, *Midnight (Raga Malkauns)*, performing on tabla and tambura. The influence of these non-Western musics on the works of the two composers can be found in their improvisatory character, lack of teleological harmonic progression, and prevalence of long tones.

A contested element of debate among the three noted authors is whether or not Young's works can be defined as "repetitive." While Mertens makes a case for Young's drones as "a particular form of repetition," Strickland struggles to label them as such.¹² All authors agree, however, that one of Young's Fluxus-period works, *Arabic Numeral (any integer) for Henry Flynt* (1960), is the most purely repetitive of his collection.¹³ Yet, since this piece focuses on the continuous repetition of one uniform sound object as opposed to groups of motives or a plurality of sounds, it is unclear whether Riley's focus on repetition can be attributed to the works of Young or his own individual explorations. Mertens posits a direct correlation, stating, "Riley's music develops out of a marginal aspect of Young's work, namely the repetition that Young used in *Arabic Numeral (any integer) for Henry Flynt...*"¹⁴ Strickland, on the other hand, attributes Riley's focus on repetition to his own early tape works rather than the influence of Young, going to efforts to make a juxtaposition between Riley's "repetition" and Young's "sustenance."¹⁵ Taken together, Potter, Strickland and Mertens demonstrate that Riley's repetition was more

¹¹ Mertens, *American Minimal Music*, 31, 44; Strickland, *Minimalism: Origins*, 172, 196; Potter, *Four Musical Minimalists*, 79, 136.

¹² Mertens, *American Minimal Music*, 16; Strickland, *Minimalism: Origins*, 145-6.

¹³ Mertens, *American Minimal Music*, 27; Strickland, *Minimalism: Origins*, 144; Potter, *Four Musical Minimalists*, 50.

¹⁴ Mertens, *American Minimal Music*, 36.

¹⁵ Strickland, *Minimalism: Origins*, 133, 145.

accessible to a wider public. Mertens notes, “[in Riley’s music], repetition in itself has no purpose other than being a musical means to ‘rouse emotional vibrations in the listener.’”¹⁶ This emotional character leads plausibly to Potter’s comment, that “it was the repetition of small patterns or modules, not the drone, which was to prove capable of wide application.”¹⁷ All agree in this regard: the repetitive character of the works of Riley and Young fundamentally differ. While none of the authors concretely makes this extrapolation, it appears that repetition in Young’s music is an unintentional byproduct of static control over harmony, while Riley intentionally uses repetition as an agent in forming simple, evolving musical material.

Riley’s repetition is manifested most archetypally in his widely popular *In C* (1964) [Example 3]. Strickland’s discussion in regards to Riley’s use of repetition circles around this piece, noting that it demonstrates Riley’s “two major contributions to early Minimalism: the reintroduction of tonality in tandem with the use of repeating musical modules.”¹⁸ Potter elaborates, stating that *In C* became one of the minimalist movement’s most commercially successful pieces and dubbing its synthesis of improvisation and individual control an “urban folk music.”¹⁹ Further, Robert Carl labels the piece as a classical-rock-jazz hybrid, pulling together elements from a variety of genres outside of the classical tradition:

¹⁶ Mertens, *American Minimal Music*, 37.

¹⁷ Potter, *Four Musical Minimalists*, 148.

¹⁸ Strickland, *Minimalism: Origins*, 133.

¹⁹ Potter, *Four Musical Minimalists*, 147, 109.

As in jazz, improvisation is an essential element...Like rock, it emphasizes a pulsating “groove” that propels the music forward...Like Asian musics, it emphasizes mode, rather than chords to generate harmony...it also suggests a fundamental harmonic stasis similar to that of Indian music...Thus *In C* is a work that is truly ‘trans-stylistic,’ and as a result, possibly the first truly ‘globalist’ composition, performable by any ensemble within any musical tradition that is willing to follow the instructions.²⁰

While Carl does well to point to the specific manifestations of non-classical influence within the piece, his utopian vision of *In C* as a work performable by any ensemble in the world may be a bit of an extrapolation. In fact, one of the remarkable traits of the piece is its disguised continuation of the Western classical tradition; while anyone can enjoy *In C*, it takes a well-prepared group with some knowledge of Western notation and large-scale shape to make sense of it. Yet, it remains true that overall, as opposed to the dissonant, aurally taxing drones of Young, Riley’s work opens up the playing field, allowing for those schooled in a variety of musical traditions to find interest. According to Riley, *In C* was a “big bow in [La Monte’s] direction in terms of musical structure and static form. But it’s radical in itself, because it was a radical departure even from La Monte’s work.”²¹ Indeed, Strickland describes *In C* as a “virtual antithesis” to Young’s *Trio*, Riley’s extroverted energy contrasting with Young’s pensive and meditative character.²²

As with Riley and Young, Steve Reich and Riley primarily interacted within the realm of performance; Reich’s involvement with Riley began at the premiere of *In C*, in which Reich participated. While Reich has acknowledged *In C* as a major influence on

²⁰ Robert Carl, *Terry Riley’s “In C”* (Oxford: Oxford University Press, 2009), 8-9.

²¹ Duckworth, *Talking Music*, 271.

²² Strickland, *Minimalism: Origins*, 178.

his own musical development,²³ this is precisely where the historical narrative of minimalist influence begins to show signs of stress. One of the revolutionary techniques of *In C* was the introduction of a constant, sounding pulse, on an octave pair of high C's on the piano. While primarily a logistical consideration intended for the effect of keeping the performers organized and synchronized, the inclusion of a pulse and “groove” into “classical music” was one of the main catalysts in creating interest for this music outside of the classical circle.²⁴ Notably, these pulses were the brainchild of Reich, who was playing piano in the performance of the piece.²⁵ Thus, while all of the credit for the historical importance of this piece is often given to Riley, Reich played a similarly large role in the piece's eventual proliferation. While not to undermine the strides Riley took in the thoughtful composition of *In C*'s motivic material, it may not have spread the way it did were it not for Reich's contribution.

Further interaction between Reich and Riley can be recognized in the field of electronics, tape manipulation in particular. Riley's early works such as *Mescaline Mix* (1960-2) and *Music for the Gift* (1963) [Example 4] experimented with the repetition and manipulation of tape loops, clearly influencing what are commonly noted as Reich's early minimalist masterpieces, *It's Gonna Rain* (1965) and *Come Out* (1966) [Example 5]. The connection can be seen in the program for one of the early performances of *It's Gonna Rain*, in which the piece is listed as *It's Gonna Rain, or meet Brother Walter in Union Square after listening to Terry Riley*.²⁶ However, while Riley may have introduced Reich to the idea of using tape loops to form an entire composition, what Reich innovated

²³ Potter, *Four Musical Minimalists*, 164.

²⁴ Potter, *Four Musical Minimalists*, 149.

²⁵ Strickland, *Minimalism: Origins*, 180; Potter, *Four Musical Minimalists*, 109; Duckworth, *Talking Music*, 296.

²⁶ Potter, *Four Musical Minimalists*, 165.

in this regard was the active use of “phasing” as a rigorous compositional process rather than as a byproduct of semi-improvisatory sampling.²⁷ An analogy can be drawn here between these two composers’ use of “phasing” and Young and Riley’s differing techniques of repetition noted above.

As we progress down the timeline of minimalist “forefathers,” we note how each successive composer rigorously abstracts one particular aspect of an earlier composer’s work, whether intentionally borrowing this aspect or not. Reich, in any case, claims to have come upon phasing on his own. As described in his *Writings*, “[i]n the process of trying to line up two identical tape loops in some particular relationship, I discovered that the most interesting music of all was made by simply lining the loops up in unison, and letting them slowly shift out of phase with each other.”²⁸ While the application of this technique in a rigorous manner—generating practically all of the musical material of a given piece—was Reich’s major contribution to early minimalism, Reich’s reliance on tape generated tension between himself and Riley. As Reich remembers, “There was definitely strain. Terry felt that I was ripping him off, just the way I felt later that Phil [Glass] was ripping me off. We saw each other, but it was not comfortable.”²⁹ This strain is reflective of a larger, somewhat hostile atmosphere among the four composers, each eager to claim their innovations for themselves.

While Reich may be criticized for popularizing a pre-existing technique and innovating by way of its rigorous application, his successive impact on the early minimalist movement may be seen in his transference of this pure electronic procedure to

²⁷ Strickland, *Minimalism: Origins*, 188.

²⁸ Steve Reich, *Writings on Music, 1965-2000* (New York: Oxford University Press, 2002), 50.

²⁹ Strickland, *Minimalism: Origins*, p. 194.

live instrumental performance.³⁰ In his series of live phase pieces—*Reed Phase* (1966), *Piano Phase* (1967), *Violin Phase* (1967)—as well as works like *Drumming* (1970-1), it is the role of the performer to accurately convey the robotic process of phasing. This technique is exceptionally difficult to perform accurately and goes contrary to nearly all conceptions of expressivity in musical performance. Reich discusses this in his compositional manifesto, “Music as a Gradual Process,” describing techniques like phasing as processes that, “can give one a direct contact with the impersonal and also a kind of complete control...”³¹ What Reich is after in his idea of “process” music is an art in which musicians “impersonalize” their performance in a mechanical manner while consciously contributing to a larger sound-object, a philosophy that clearly stems from Young’s *Trio*. This idea is further seen in other recurring processes of Reich’s music, such as his additive process, the “gradual assembly of a unit within a predetermined and unchanging time frame...usually used in conjunction with canon...” to build rich rhythmic and textural patterns.³² Regardless of the literal techniques, what Reich introduced into the field of early minimalism was the idea of robotic, impersonal *process* as a guiding compositional principle to be tracked by the listener.

As the standard narrative goes, Philip Glass took this concept of process and introduced his own technical device—additive and subtractive rhythm—pursuing the idea of unmitigated, seemingly unchanging repetition to an extreme extent. Yet predictably, as noted in Reich’s comment above, Glass and Reich have lived an increasingly estranged relationship, with Glass claiming he came upon his rigorous use of this process through

³⁰ Strickland, *Minimalism: Origins*, 196; Potter, *Four Musical Minimalists*, 180.

³¹ Reich, *Writings on Music, 1965-2000*, 10.

³² Dan Warburton, “A Working Terminology for Minimal Music.” *Intégral 2* (1988): 148.

his own path and not with the guidance of Reich. In his own words, “What I did was something totally different that, in my experience, had no model. When I came back to New York [from Paris], I discovered there were other composers working that way, which was a great relief I must say.”³³ Nonetheless, like the dedication in Reich’s early experimentation with tape, Glass’ early experimentation with additive rhythm, *Two Pages* (1968), was initially titled *Two Pages for Steve Reich*, implying an influence in compositional thought.³⁴ *Two Pages* does focus prominently on process as a compositional guide; in fact, process governs all that we hear: “ultimately, the structure of *Two Pages* can be understood as first, the exposition and juxtaposition of two sets of opposing processes, and then, the coordination of all shapes which both emerge from, and reflect back on, those processes.”³⁵ Thus, in a work so clearly governed by process, Glass’ erasure of his dedication to Reich seems like a defensive gesture to assert his own individuality in what could be construed as a distortion of someone else’s compositional technique.

Perhaps this gesture points to Glass’ awareness of the narrative being sketched at his expense and an assertion on his part that influence is not quite as one-sided as many make it seem. In fact, just as Reich’s influence may plausibly have impacted the lasting effect of Riley’s *In C*, many of Reich’s noted techniques were actually first introduced by Glass. For example, one of the many noted innovations of Reich’s landmark *Music for 18 Musicians* (1974-6) was introduced by Glass four years earlier. I am referring to what Reich calls “the rhythm of the human breath,” in which the duration of certain notes

³³ Duckworth, *Talking Music*, 332.

³⁴ Potter, *Four Musical Minimalists*, 286.

³⁵ Wes York, “Form and Process,” in *Writings on Glass*, ed. Richard Kostelanetz et al. (New York: Schirmer Books, 1997), 61.

within chords are controlled by the length of each performer's breath.³⁶ [Example 6] While Potter describes this as a "new technique" (due to the fact that Reich's chapter is placed before Glass'), he later without comment recounts Glass' use of a similar technique in his *Music with Changing Parts* (1970), in which, as Glass indicates, the "individual players were permitted to play one note for the length of a breath... a note they heard emerging from the pattern of the music."³⁷ [Example 7]. While in Reich's case, these held notes pulse with the music, in Glass' case the notes are one long, sustained drone. The technique is essentially the same in each of these cases, and Potter attributes the harmonic and tonal complexity of both pieces in large part to these swells and drones of the breath. This technique, which can definitively be attributed to Glass, clearly had an impact on the emotional complexity of Reich's work and is a definitive example of influence in the opposite direction from the narrative generally presented.

Surprisingly, Mertens also notes a possible influence in this direction, yet cast aside as a footnote. In discussion of Glass' use of sudden modulation in *Music with Changing Parts*, he states, "It is possible that Glass influenced Reich, who did not introduce sudden modulations until *Six Pianos* of 1973."³⁸ This is the only discussion he gives on the subject. Within Glass' *Music with Changing Parts*, then, Potter and Mertens present not one but *two* possible influences on later works by Reich, yet cloaked within the text and given no stress or extrapolation. The significance of these influences has gone bafflingly overlooked and under-discussed by those who have sketched the narrative of early minimalism. Clearly, this complicates the linear narrative of Young-

³⁶ Potter, *Four Musical Minimalists*, 233.

³⁷ Ibid, 308.

³⁸ Mertens, *American Minimal Music*, 77.

Riley-Reich-Glass. One wonders what alternate narratives would be found in a further exploration of influence from Reich to Riley or from Riley to Young.

One must also consider the voices that are neglected in our holding up of these four composers as the sole forces of the minimalist movement. Glass, the only one of the four to actively fight against the narrative as it has been built, states,

The way people look at that history is very skewed now. What was really going on was that there was a generation of composers who were in open revolt against the academic music world...Some of us got singled out more than the others, and some of us got more famous than the others. To an extent, those are accidents of fate. But those are also a result of personal effort and ambition on the part of those people.³⁹

This “generation” of composers included Tom Johnson, Tony Conrad, Terry Jennings, Richard Maxfield, Pauline Oliveros, David Behrman, Jon Gibson, Loren Rush, Charlemagne Palestine, Andrew Poppy, Gavin Bryars, Julius Eastman, and many others. While perhaps not innovating or publicizing their music to the extent that the four aforementioned composers did, each of these interrelated figures involved themselves in and influenced the musical discourse being established by the early minimalists. The breakdown of “high” and “low” art, as represented by the four aforementioned composers, necessitated a much wider group of participants in order to actually take effect. Thus, while not all of these composers’ works are aesthetically tied to minimalism, the artists themselves fall into the same school of thought in the cultural significance of their works and the ways in which they are disseminated.

In “Terry Jennings, the Lost Minimalist,” Brett Boutwell describes the many similarities between Jennings’ music and the music of Young, such as the focus on sustained tones within a serial context, extensive use of the pitches that make up what is

³⁹ Duckworth, *Talking Music*, 335.

commonly referred to as Young's "dream chord," and a prevalence of perfect fourths and fifths. Boutwell argues that although Jennings did not introduce a particular technique or method of composition, "By reducing the history of modernist music to a checklist of such 'firsts,' we inevitably diminish the importance of artists such as Jennings, who play crucial if quiet roles in the dissemination of musical styles, aesthetics, and ideologies."⁴⁰ While "minimalism" is surely a useful term in labeling the aesthetic pursuits and innovations of Young, Riley, Reich, and Glass, it leaves out figures that are ideologically tied to their larger projects yet more difficult to label in any one box. The trends noted below extend from the minimalists to the larger pursuits of their surrounding artistic community.

Central Trends

In an essay discussing the nature of minimalism, Timothy Johnson notes that minimalism began as an aesthetic, distinguished by the "conception of the *non-narrative work-in-progress*" as demonstrated in the works of Young and Riley. It then became a style, as seen in the common mode of expression among Reich, Glass and a variety of other composers who blossomed from the minimalist aesthetic. Finally, minimalism came to be used as a technique of reduction used in tandem with other compositional strategies in the works of modern composers such as John Adams and Michael Torke.⁴¹ Johnson specifies that while the minimalist style consists of five principal characteristics, the minimalist technique implies a use of two of these characteristics. These five characteristics are a continuous formal structure, an even rhythmic texture and bright

⁴⁰ Brett Boutwell, "Terry Jennings, the Lost Minimalist." *American Music* 32, no. 1 (2014): 84.

⁴¹ Timothy Johnson, "Minimalism: Aesthetic, Style, or Technique?" *Musical Quarterly* 78, no. 4 (1994): 742–73.

tone, a modest harmonic palette, a lack of lengthy melodic lines, and repetitive rhythmic patterns.⁴² However, I believe that by focusing in on the musical material itself, we lose sight of the bigger questions provoked by minimalism and return to the inward conventions of the classical tradition interrogated by minimalism's expansive project. On the contrary, by noting trends wrapped up in the larger context of the production, promotion and reception of music from the minimalist movement, we can come to a better understanding of the larger ideological goals of these four composers and the ways that they lead to various musics of today. Moreover, a noting of these trends may help explain the "crossover" popularity of these four particular composers and the opportunities they introduced to musical artists in a variety of styles.

The first of these trends is the relation between the production of their music and electronics, specifically amplification. While I have discussed the role of tape on Reich and Riley's compositional development, every one of the early minimalists relies on electronics to some extent. For Young, electronics are a practical concern, allowing him to accurately produce justly-tuned intervals and maintain them for incredible stretches of time. Further, Young's use of electronics point to his interest in raw amplification at near-unbearable volumes, "in order to appreciate [the] harmonic partials with full clarity and intensity."⁴³ High levels of amplification are for Young a source of physical stimulus, as one "begins to have a sensation that parts of the body are somehow locked in sync with the sine waves and slowly drifting with them in space and time."⁴⁴ Riley also maintains an interest in electronics, as seen in his frequent use of synthesizers and the "time-lag accumulator," essentially a form of tape delay which aided his improvisations in works

⁴² Ibid, p. 751.

⁴³ Potter, *Four Musical Minimalists*, 65.

⁴⁴ Ibid, 78.

like *Poppy Nogood and Dorian Reeds*. In terms of his work with keyboards, Riley's use of electronics seems to again be a primarily logistical concern, as these keyboards can be easily tuned to the just intonation system. Although generally wary of electronics since applying phasing to live performance, even Reich makes use of amplification to alter his sound: "what I do with amplification is to create balances that are acoustically impossible, and to unify the sound source of the entire ensemble so that it's all coming from the loudspeakers..."⁴⁵ Finally, Glass also relies on electronics to a large extent, incorporating electronic keyboards into his ensemble and amplifying his music to exceptional levels. Like Young, he is interested in loudness as a mode of physical interaction with sound: "The placement of speakers around and outside the grouping of both musicians and audience puts everyone at the center of the sound... Presence derives from an activation of the entire performance area, including the audience as a resonant element of that sound."⁴⁶

The openness to embrace instruments outside of the standard classical tradition points to a greater theme within the early minimalist movement of logical extension of past traditions, rather than the rejection usually described. This group of composers finds relevance in the classical tradition they draw from by engaging with their contemporary world and culture. In particular, the prominence of electric keyboards and synthesizers in their works, pointing to a willingness to draw from surrounding "popular" traditions of jazz and rock, could be viewed as a logical continuation of the impulse to draw from surrounding vernacular traditions. Just as composers like Béla Bartók and Charles Ives

⁴⁵ Duckworth, *Talking Music*, p. 308.

⁴⁶ John Howell, "Listening to Glass," in *Writings on Glass*, ed. Richard Kostelanetz et al. (New York: Schirmer Books, 1997), 96.

quoted or referenced the musical sounds of their surrounding cultures, the early minimalists quote the physical sounds themselves through their usage of instruments most recognizable in musics outside of the classical world. Moreover, the use of amplification may be seen as a logical extension of the large symphonic works of the early twentieth century, through synthesizing the search for increasingly larger sounds with the technologies of the time. The quest for loudness in the classical tradition, which seemed to have reached its peak in Gustav Mahler’s massive symphonies, is actually pushed even further by the early minimalists and their interest in music so loud as to be physically interacted with.

The interest in physical sensation through amplification also points to a larger project of minimalism: sensory stimulation. Each of the four aforementioned composers works with other forms of visual art and concerns themselves with activating senses other than hearing. Firstly, La Monte Young collaborates frequently with the visual artist Marian Zazeela. Of note is their “Sound and Light Environments,” otherwise known as Dream Houses [Figure 1].



Figure 1 – La Monte Young and Marian Zazeela’s 275 Church Street Dream House

Visitors are implored to move about freely in the space of these Dream Houses, experiencing them as “time installation[s] measured by a setting of continuous frequencies in sound and light.”⁴⁷ In my own experience of the current Dream House installation on 275 Church Street, I was struck by the raw sense of atmosphere that the space conveys. One’s time inside the Dream House resembles an artificially enforced synesthesia. Loud drones pour into one’s ears, a magenta hue permeates every air particle, surreal white sculptures hang from the ceiling, and colored sheets of plastic tint the windows. As one moves around the space, their perception of their surroundings constantly changes: a tilt of the head alters the perception of interacting sine waves, an extended glance at any area of the room will seem to slowly change color over time. As Strickland notes, “Like Young’s music, to which it serves as an almost uncanny complement, Zazeela’s work is predicated upon the extended duration necessary to experience the nuances which are its essence. The use of her work in tandem with Young’s music has both enhanced its effect and perhaps discouraged appreciation of it as independent artwork...”⁴⁸ Young’s music is designed to be experienced with visual stimulation, and again points to early minimalism as an avenue for extension into other worlds of art rather than reduction. This extension to the other arts creates an all-encompassing experience that the music alone would not provide.

Reich and Glass also ally themselves with visual artists, particularly those of the Minimalist style, although they warn against comparing the musical and visual techniques of minimalism.⁴⁹ Nonetheless, by opening themselves up to artistic trends

⁴⁷ Potter, *Four Musical Minimalists*, 77.

⁴⁸ Strickland, *Minimalism: Origins*, 155.

⁴⁹ Potter, *Four Musical Minimalists*, 171, 266.

outside of the purely auditory, the two artists have found new avenues for presenting their music outside of Western classical music support systems. While the majority of Young and Riley's works were performed in private lofts, showcasing their work along with other artists in the Fluxus and Downtown circle, Glass and Reich found the additional space of the art museum as a receptive area of presentation. Many premieres of early works took the form of interdisciplinary happenings, in which visual art would be displayed along with the presentations of new musical pieces, drawing in crowds that were interested in one or the other for the benefit of both parties. Additionally, Glass was historically quite involved with experimental theatre and opera, both offering avenues for the presentation of his works⁵⁰. Much of Glass' reputation has in fact been built on his associations with other art forms, with works like the opera, *Einstein on the Beach* (1975), and the film, *Koyaanisqatsi* (1983), cementing his place within the larger public consciousness. Further than a compositional stimulus and counterpart, extensions into other spheres of art seem to be a savvy business move leading towards the dissemination of artistic products to more consumers.

One final trend to be noted among these four composers is the role of ownership to be implied in the interactions between unique performance ensembles, recordings of performances, and the overall improvisatory nature of much of their works. All four composers except for Terry Riley have led their own ensembles: Young with the Theatre of Eternal Music, Reich with Steve Reich and Musicians, and Glass with the Philip Glass Ensemble. Although Riley has never had a dedicated ensemble, many of his works are performed solo and the majority of those that call for a larger group of musicians have

⁵⁰ Mertens, *American Minimal Music*; Strickland, *Minimalism: Origins*; Potter, *Four Musical Minimalists*.

been recorded with ensembles within which he participated. As Michael Nyman would have it, “Riley is essentially a performer and improviser who composes, rather than a composer who performs.”⁵¹ While one can note a general trend away from improvisation among the four composers—with much of Young’s music being the most truly improvisatory and subsequent composers increasingly structuring improvisatory possibilities—each incorporates improvisation to such an extent that every performance of the majority of pieces will be different. Therefore, recorded versions of these works that involve the composer in the performance stand as “definitive” versions of the work, theoretically portraying what the composer envisioned in his mind during the compositional process. We can see then that by devoting themselves to the performances of their own semi-improvisatory works, these composers make their music commercially relevant both in live performance and within the recording industry. While nearly all of the composers in their surrounding circle performed and recorded in the same vein, the minimalists’ success in the promotion of these commercial products is what has placed them apart from the larger “generation” noted above and solidified their place in history.

Marketing Minimalism

I learned gradually, over the years, that in order to succeed, a great deal of it is PR. You could be the most talented, most creative individual in the world and totally disappear - never be known - unless you had some way to present your work to the public in a way that they could get a handle on it and realize that it was important. – La Monte Young⁵²

⁵¹ Michael Nyman, *Experimental Music: Cage and Beyond* (Cambridge: Cambridge University Press, 1999), 145.

⁵² Duckworth, *Talking Music: Conversations with John Cage, Philip Glass, Laurie Anderson And 5 Generations of American Experimental Composers*, 230.

The four early minimalists—Young, Riley, Reich, Glass—were businessmen. This is not meant in anyway to undermine the value of their artistic intent. Rather, it points to the fact that they produced music in such a way as to reach out to new communities and make use of new avenues of musical dissemination that had yet to be explored by the classical music community. Much of this music is uncompromisingly difficult, yet being marketed it in a way that appealed to a rising youth culture both in performance and in recording, minimalism found an audience and an avenue for commercial success.

Robert Carl notes three groundbreaking aspects of the physical presentation of Terry Riley’s recording of *In C*, minimalism’s first cross-over commercial hit: the cover referenced the contemporary psychedelic paintings of Peter Max [**Figure 2**], the entire score was printed on the inside cover, and the written liner notes were strikingly different from those found in a typical classical recording.⁵³ These written notes, by rock critic Paul Williams, end with the line, “This stuff here is close enough to the basics of what music is to be listened to and appreciated with no musical background of any sort.” Clearly, this piece was marketed to a wide variety of audiences: the hippies who were interested in the psychedelic artwork, the classically trained musicians who hoped to perform the piece themselves, and even the popular music fans who had yet to dive into classical music. These marketing trends continued in Riley’s next LP release, *A Rainbow in Curved Air* [**Figure 2**], arguably even more “psychedelic” in its imagery, and through the releases of Reich and Glass, following a trend of increasing commercial success. This music no longer solely aimed to please the elite cultural institutions of the earlier classical

⁵³ Carl, *Terry Riley’s “In C,”* 84.

avant-garde. Instead, it reached out to those interested in the popular music industry, global musical cultures and art music history itself.

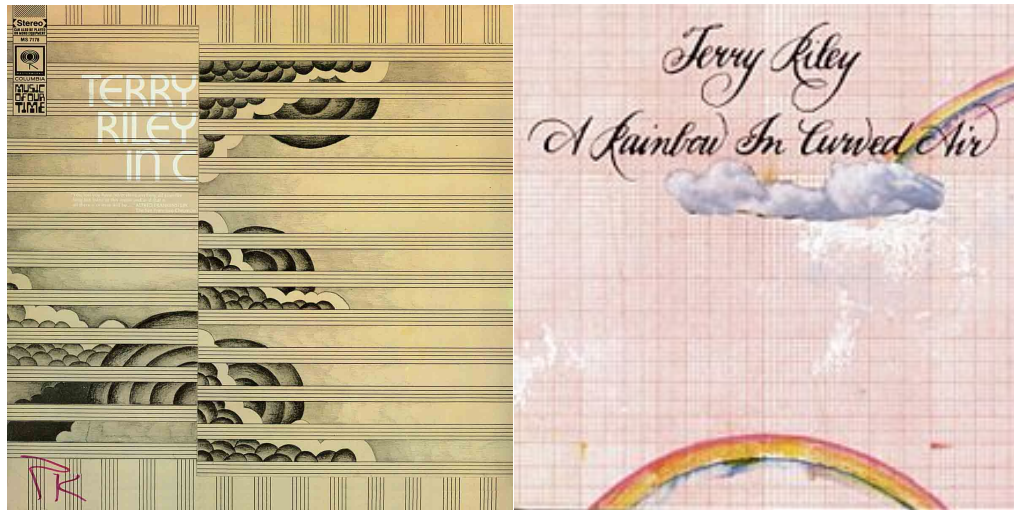


Figure 2 – Terry Riley’s *In C* and *A Rainbow in Curved Air*

One cannot understand the significance of the minimalist movement by simply observing the aesthetics of its surface. For while a study of these aesthetics can surely be revelatory, it can also lead to misconceptions and chronological inconsistencies, as demonstrated above. On the contrary, by noting the larger trends behind how music of the early minimalist movement was conceived, disseminated and produced, we can come to an understanding of a larger musical movement and its true impact on today’s musical landscape. In the coming chapters, I will explore how minimalism called attention to the breakdown of “high art” and “low art” in its surrounding musical culture and investigate a musical artifact of today that seems to follow from this influence. It is my hope that by drawing these connections, musics that fall outside of the traditional “classical” distinction can gain greater attention in music scholarship.

Chapter Two

Reproduction as Creation, Repetition as Variety

Reproduction, in a certain sense, is the death of the original, the triumph of the copy, and the forgetting of the represented foundation: in mass production, the mold has almost no importance or value in itself; it is no longer anything more than one of the factors in production, one of the aspects of its usage, and is very largely determined by the production technology. – Jacques Attali⁵⁴

Musical Performance in the Age of Mechanical Reproduction

In 1948, the 33^{1/3} r.p.m. microgroove LP was launched by Columbia in the United States. Primarily for the intent of physically commodifying and disseminating classical music, the LP forever altered the traditional conception of art music. After the birth of the LP, the concert hall no longer served as the self-contained locus for spiritual sonic interaction. Rather, along with the commercialized long-playing record came a new form of control for the listener him or herself: control over volume, listening environment and even the specific music to be listened to. Those in power within the music community could no longer dictate exactly what was to be listened to at one time, and as innovative artists like Glenn Gould revealed, one now had the power to set in stone a blueprint for what a given piece of music *should* sound like and thus, what all future performances of a given piece should reference if they are to be “accurate.” Along with the birth of recording came a newfound sense of power for performing artists, allowing them to make their mark on the physical record of music history through their decision to either follow or challenge tradition. Perhaps most profoundly, as Arved Ashby writes in *Absolute Music, Mechanical Reproduction*, “recording had less an aesthetic influence on classical-music practice than on ontological effect. In other words, it has helped shape and define

⁵⁴ Jacques Attali, *Noise: The Political Economy of Music* (Minneapolis: University of Minnesota Press, 1977), 88-9.

the sort of thing that music is.”⁵⁵ By its very nature, recording technology changed what society would accept as a completed work of music. For with the onset of recording, setting one’s musical art in stone no longer required a pen and paper; all that was needed was time and the ability to record one’s musical thoughts.

Opinions on the relative merits and fallbacks of music’s transformation from intimate lived experience to continuous aspect of the ambient environment have long been divided. On the one hand, music as a recorded object provides access to a practically infinite amount of musical materials from across the globe. As Michael Chanan notes, recording allows for the diffusion of a greater volume of music to more parts of the world, creating a greater potential for cultural integration and a rising awareness of cultural goods that had formerly lined the periphery.⁵⁶ On the other hand, conservative cultural critics like Theodor Adorno have claimed that the practice of recorded music led to the fetishization and commodification of high art and ultimately, a regression in listening abilities.⁵⁷

Adorno posited that this commodification of music led directly to an unprecedented gulf between the spheres of high and low art.⁵⁸ According to Adorno, serious music has historically reflected a turn away from “the banal,” upholding the standards of light music through its active negation of them. Yet, with the onset of recording, the theoretical distance between serious and light music was equalized and each style of music had to compensate aesthetically. In the author’s view, as serious

⁵⁵Arved Ashby, *Absolute Music, Mechanical Reproduction* (Los Angeles: University of California Press, 2010), 22.

⁵⁶Michael Chanan, *Repeated Takes: A Short History of Recording and Its Effects on Music* (London and New York: Verso, 1995), 95.

⁵⁷T. W. Adorno, “On the Fetish-Character in Music and the Regression of Listening.” In *The Essential Frankfurt School Reader*, edited by Andrew Arato and Eike Gebhardt (New York: Continuum, 1982).

⁵⁸Ibid, 275.

music drove so far as to reach the limits of incomprehensibility, the commoditization of light music led to a new style no longer serving those it had historically represented. That is to say, while light music was once a vehicle of individual expression for those outside of musical culture, it now acted as a top-down transmission of identical musical values. Yet, regardless of the growing aesthetic distance between light and serious music, these wholly distinct spheres worked together to negate a third option. Adorno writes, “Between incomprehensibility and inescapability, there is no third way; the situation has polarized itself into extremes which actually meet. There is no room between them for the ‘individual.’... The liquidation of the individual is the real signature of the new musical situation.”⁵⁹ For Adorno, the growing separation between high and low art was merely an indicator of a larger theme of the recording age. While aesthetically distinct, the growing polarities pointed to a unified resistance to unique, individualized expression in the age of mechanical reproduction.

The “liquidation of the individual” which Adorno speaks of is manifested further in the realm of musical interpretation, as demonstrated by performance practice conventions birthed in tandem with the recording industry. Adorno emphasizes that music’s transformation to physical object led to a completely novel form of musical performance, distinctly lacking the organicism that art music requires. For Adorno, the musical recording lacks the spark of human discovery that one finds in live, real-time performances:

⁵⁹ Ibid, 275.

Perfect, immaculate performance in the latest style preserves the work at the price of its definitive reification. It presents it as already complete from the very first note. The performance sounds like its own phonograph record. The dynamic is so predetermined that there are no longer any tensions at all. The contradictions of the musical material are so inexorably resolved in the moment of sound that it never arrives at the synthesis, the self-production of the work, which reveals the meaning of every Beethoven symphony.⁶⁰

In *Absolute Music, Mechanical Reproduction*, Ashby speaks further on this topic, emphasizing the ways that the individualized and sometimes spontaneous expressive nuances of live performance become fixed aspects of a musical text with the onset of recording. As a certain piece of music is recorded a number of times, Ashby claims, there is a greater concrete sense of what any given passage of music *should* sound like, leading to a standardization of certain expressive details. Thus, with the commodification of music comes the desire for performers to give “accurate” representations of the objective work, consistent with previous “definitive” iterations and essentially free of one’s own individualized or spontaneous expression.⁶¹ It seems to me that while it is ultimately the performer’s choice whether to withhold or uphold performance traditions, the new status of music as commodity implored one to play it safe. The commodification of music turned musical interpretation into a blatant type of mimicry, with certain expressive details being passed down to successive performers due to their commercial and popular success. However, Adorno and Ashby do not comment on the fact that this normalization of expression is simply a reflection of larger trends throughout the course of music history, in which musical style has always generally been standardized. Recording simply allows for a more rapid and concrete regulation of expressive techniques that have demonstrated popular success throughout music history. Nonetheless, the human

⁶⁰ Adorno, “On the Fetish-Character in Music and the Regression of Listening,” 284.

⁶¹ Ashby, *Absolute Music, Mechanical Reproduction*, 37-9.

connection that was at one point intimately experienced in real-time with a live performer can no longer compensate for these similarities in expression and, thus, I find Adorno's "liquidization of the individual" to be a relatively accurate assessment of classical music performance in the recording medium.

Jacques Attali, cited above, also notes a loss in individual expression in the age of recording, asserting that the onset of recording led to a new musical system completely governed by technology itself rather than any distinct individual whim. However, this appears to me as another further continuation of trends throughout music history, particularly the relationship between the music creator and music technology. As Attali states, the creative musical material is simply a valueless "mold," one of the many factors involved in the production of a physical musical object to be listened to. I would argue, however, that music has always been governed by technology that gives shape to an empty "mold." As any classical composer schooled in the idiomatic uses of orchestral instruments could tell you, musical artists have historically been forced to create based on the technology available to them. The rise in importance of production technology is simply a continuation of trends such as these throughout music history. Ultimately, the power that technology has over musical creation should not be viewed as anything drastically new: the musical works that are historically regarded as successful are often so because of the ways which they both efficiently activate and innovatively use these technologies.

Therefore, if commercialization is to be regarded as another era in music technology, Adorno's dismissal of "light music" leaves no room for those artists which play to commercialization and recording technology in innovative ways. While it remains

true that the most commercialized of music often appears as a rote replication of previous commercial successes, we are now much better able to appreciate the diversity of niche genres borne out of the recording industry through the benefit of hindsight and—in recent years—the capabilities of the Internet for music discovery. Rather than grouping all of commercialized popular music into the sphere of “light music,” as Adorno does, we are now at a point in music history at which this term itself fails to describe the plethora of genres and sub-genres that it contains. As Michael Chanan writes, “Adorno is not the best guide to the aesthetics of popular culture, for he discounts the real distinctions which nevertheless develop between and within the genres of popular music. This neglect, shared by authorities who are ideologically his opposite, conceals the enormous capacity of popular music of every kind for regeneration, a capacity that has been fuelled by recording.”⁶² For better or for worse, commercialized recordings have become a defining feature of today’s musical culture. Vernacular musics sold for monetary value cannot all be regarded as “light music.” Rather, it is clear that this sphere of commercialized music has thrived in many diverse ways and frequently approached the level of “art music” as music to be listened to actively.

All of the above relates in some way to what Roland Barthes calls the “death of the Author.”⁶³ Just as Barthes argued that the contemporary reader had more authority to create meaning for a written work than its author, recording technology displaced the creative agency of both the classical musician and the canonical composers whose works they performed, giving the performer less control over what was to be listened to at what

⁶² Chanan, *Repeated Takes*, 15.

⁶³ Roland Barthes, “The Death of the Author,” in *Image / Music / Text*, trans. Stephen Heath (New York: Hill and Wang, 1977).

time and creating competition for the composers entrenched in history. Yet, rather than a death, we should read recording technology's impact on the musical artist as a redistribution of power and musical value.

Glenn Gould, a classical music performer savvy enough to embrace and even dedicate himself fully to the recorded medium around the middle of the twentieth century, envisioned a new "invisible network" of communication between the musical creator and music listener. Surely, new recording technologies created a plethora of new musical roles to be filled, from producer to sound engineer to physical manufacturer of the musical object that was to be played. Gould, however, sought to grant new agency to listeners themselves, imploring them to interpret and shape the music they heard and ultimately liberating them from the oppressive conception of the single visionary artist.⁶⁴ Gould envisioned a musical medium in which listeners could physically manipulate the recorded sounds they were hearing, splicing sections together at their whim or changing the speed or pitch of certain segments. By turning to the recording studio, Gould searched for a new form of musical expression, one which was not handed down from powerful cultural figures to the masses, but one in which *any* music listener could participate and dictate what was to be listened to and in what manner. While the immediacy of performance in a concert hall setting could never be recreated with recording technology, this same technology birthed a new immediate role for the listener and re-distributed the power structures inherent to the classical tradition.

⁶⁴ Tim Hecker, "Glenn Gould, the Vanishing Performer and the Ambivalence of the Studio," *Leonardo Music Journal* 18, no. 1 (2008): 7.

Making Sense of Minimalism in the Age of Recording

The above commentary may sound familiar. As expressed in the first chapter of this thesis, one of the key traits of minimalism was the manner in which it stemmed from the classical tradition while at the same time challenging and provoking the institutions from which it grew. Yet this task would not have been possible without the aid of recording technologies and their aesthetic and philosophical ramifications on the classical music world. While I have discussed the manner in which the early minimalists successfully utilized the recording industry as a means to publicize and promote their work, what has yet to be explored is the manner in which the musical material itself commented on recording as a medium, betraying a profound awareness of the larger musical world outside of the concert hall. Early minimalism was marked by three key characteristics: a pervasive sense of impersonal objectivity in performance, the heavy use of repetition as a structural principle and process as a compositional guide. The first two of these traits are closely allied to the sorts of philosophical dilemmas which the recording medium introduced to classical art music while the third aligns itself with the idea of objectivity in the way that creative expression is to be guided by robotic inevitability. By examining these characteristics of early minimalism within the context of recording, we can understand how this musical movement strived to make us aware of a new musical culture.

Of most immediate interest is the manner in which the early minimalists played off of the new performance practice techniques brought forward by the recording industry, transmitting them into their own wholly unique musical style in a way which bridged the gap between their own works and the classical world while at the same time

commenting on the significance of the entire situation. With the possible exception of Young and Riley's jazz-influenced saxophone improvisations, nearly all of the early minimalist pieces could be classified as impersonal and robotic. As discussed previously, Steve Reich's writings on the idea of musical process explicitly touch on the objective remove that he is after in the performance of his music, so as to better illustrate the underlying process that drives the music forward.⁶⁵ And similarly, as Chanan writes, recording technologies created a "shift in emphasis from the expressive to the more formal and abstract properties of music."⁶⁶ Thus, perhaps the detached remove characteristic of classic minimalism was a way for these composers to make substantial art that referenced and played to the aesthetic ramifications of recording. If, in the age of recording, even the most emotionally expressive of classical music was to be performed in a manner which masked the performer's own individual experience and if recording was established as a medium which was here to stay (which would be a fair assessment in the age of the early minimalists, nearly twenty years removed from the public birth of the LP), the logical move forward for the classical tradition was an instrumental music which fully embraced this objectivity at its conception.

Of equal prominence in early minimalism is the presence of repetition as an all-pervasive structural element, one that both reveals profound commentary on mechanical reproduction at a meta-level and allows for a greater embodiment on the part of the listener of what runs the risk of appearing bland and lifeless. First of all, through the discrete repetition of tiny musical objects, classic minimalism points to the repetition inherent to the development of the sounding material itself. John Mowitt has noted that

⁶⁵ Reich, *Writings on Music*, 10

⁶⁶ Chanan, *Repeated Takes*, 125.

the music studio is governed by ideas of repetition and reproducibility, with performances themselves often consisting of the splicing together of repetitive takes of similar material.⁶⁷ Thus, the “liquidation of the individual” within musical creation is distinctly tied to the idea of repetition as a guiding principle for the production of commoditized music. Repetition drives everything about the musical recording process, from the recreation of technical set-ups that produce the best results to the multiple studio takes often required to create a polished finished product. While we as listeners only hear one performance, we know that it represents a multiplicity in disguise. Thus, classic minimalism makes us aware of this multiplicity by presenting us with multiple versions of identical musical material.

Similar repetitive trends persevere in the realm of the music consumer. In *Repeating Ourselves: American Minimal Music as Cultural Practice* (to this date the most thorough reading of minimalism’s cultural significance), Robert Fink notes a similarity between minimalism’s unmitigated repetition and post-World War II consumer society in the United States:

Psychologists, social critics, and industrialists discerned a ‘crisis of desire,’ a failure of postwar subjects to produce enough authentic, inner-directed striving to keep the dynamos of economic prosperity turning. Advertising professionals, bolstered by new ‘sciences’ of consumer cognition, motivation, and behavior, undertook to discipline the production of desire, mass-producing it with the same rationalized efficiency as their compatriots in manufacturing had achieved in the production of goods. Minimal music can be analyzed and interpreted culturally as the transposition of this rescue effort into sound. Repetitive processes, combined with more traditional constructions of musical *telos*, produce a perfect simulacrum of advertising: the mass production of musical desire.⁶⁸

⁶⁷John Mowitt, “The Sound of Music in the Era of its Electronic Reproducibility,” in *The Sound Studies Reader*, ed. Jonathan Sterne (New York: Routledge, 2012), 215.

⁶⁸Fink, *Repeating Ourselves*, 71-2.

Just as advertising attempts to instill a sense of deep-rooted desire within its consumer subjects, minimalism uses unmitigated repetition as a means to instill interest in and desire for more repetition. The early minimalists treat repetition as an abstract commodity to be toyed with, imploring listeners to engage with the rote repetition of musical materials much in the same way that Glenn Gould hoped his listeners would interact with the physical recordings of his performances. In minimalism, the tiny musical motive is stripped of its significance, only meaningful in the ways that it interacts with the surrounding replications and variations on the same musical material. Because classic minimalism's structural repetitions inherently reference the repetition brought forth by the recording industry, the lack of meaning we find in the single musical motive points to a larger commentary on the state of art music in the age of mechanical reproduction. Minimalism makes us aware that art music as commodity is stripped of the meaning and power it once held within the concert hall and instead valued for how it can be replicated, promoted and compared to other versions of what appears on the surface to be the exact same thing. Much like the tiny musical motives of minimalism, music as commodity is only meaningful in the way it interacts with other commoditized musics.

Although this may sound like a pessimistic take on a new musical culture, early minimalism actually makes a case for repetition as a pervasive element of culture to be valued. While total serialists such as Boulez and aleatoric composers such as John Cage and his surrounding circle toyed with the idea of objective expression before the early minimalists, it was the prominence of repetition that breathed life into the music of the minimalists and allowed for a greater sense of accessibility. In my mind, the pleasure of this incessant repetition (and our *awareness* of this pleasure itself) is a way of

commenting on the pleasure to be gained from music in the age of recording. As David Hamilton writes, “for some listeners...the unchanging aspect of recordings can be pleasing and reassuring; they can act as aural security blankets, particularly if they have extra-musical associations...life may be getting worse, but the old records, at least, stay the same.”⁶⁹ The repetition inherent to the recording medium—the idea that no matter where, how, or when you listen, the sounds you hear will remain unchanged—is embodied in the music of the early minimalists, stripped down to its tiniest components and handed to us so that we can have this experience over and over again in the course of one piece. Classic minimalism acts as its own “aural security blanket,” providing immediate comfort through repetition.

Additionally, the more familiar one becomes with a piece of music or—in the case of the minimalists—a discrete musical motive itself, the more one is encouraged to embody the musical experience, following the music as if he or she were actually participating within it. As Elizabeth Margulis notes, this embodiment contributes directly to a sense of musical pleasure.⁷⁰ Thus, the human listener is attracted to repetition both in the level of the structural material of the music itself and on the larger level of the recorded musical product. When listening to classic minimalism, one discovers that the pleasure of embodiment one experiences while listening to repetitive musical motives is distinctly tied to the comfort one receives from re-experiencing familiar musical material on the larger scale. As the experience of listening to classic minimalism acts out in

⁶⁹David Hamilton, “Some Thoughts on Listening to Records,” in *The Phonograph and Our Musical Life*, ed. H. Wiley Hitchcock (New York: ISAM, 1977), 69.

⁷⁰Elizabeth Margulis, *On Repeat: How Music Plays the Mind* (New York: Oxford University Press, 2013), 12.

miniature the experience of listening to a recorded musical object over and over again, the music itself reminds us of the pleasure to be gained in repetitive listening.

Through a combination of rote objective repetition and minute variances small enough to be missed at a removed listening, early minimalism also comments on the variety to be found within repetition itself. Music theorist and philosopher Leonard Meyer once wrote, “Repetition, though it may exist physically, never exists psychologically.”⁷¹ Because one is always in a unique state of mind at any one time, Meyer argues that objective repetition does not correspond to subjective repetition. Minimalism seeks to demonstrate this principle by blurring the lines between objective and subjective reality, stimulating as much perceptual variety as possible in subtle, minute changes of repetitive musical fragments as processes guide their gradual evolution. Thus, what may appear to be simple repetition on the surface is revealed on closer listening to hold a greater potential for change than could have previously been imagined.

This active demonstration of the multitude of ways that we can experience similar musical material holds larger ramifications for the ways that we can listen to and perceive our commoditized musical objects in full. In her study of the psychological significance of repetition within music, Elizabeth Margulis writes that repetition permits one to re-experience the many meaningful elements of a piece of music that could not be ingrained in one’s memory, allowing for a shift in attention from one level of music to another and granting multiple rewarding musical associations for the same musical material.⁷² The textural mass of classic minimalism allows for—even encourages—a constant shift in

⁷¹ Leonard Meyer, *Emotion and Meaning in Music* (Chicago and London: University of Chicago Press, 1956), 49.

⁷² Margulis, *On Repeat*, 25.

listener perspective, a viewing of the same object from multiple angles and with altering focuses. In this way, minimalism sought to teach one how to listen to music in a time when the experience of listening to music itself was undergoing fundamental changes, training listeners to adapt their ears to different levels of detail within the same mechanically reproduced musical objects. Classic minimalism, then, aims to demonstrate the potential variety of repetition in two main ways. First of all, the music itself appears as repetition at the surface but undergoes discrete changes that reveal themselves on close listening. And secondly, the textural density of the music implores the listener to move among different planes of detail within the perceived repetitions themselves.

In a study of post-Cagean experimental music and sound art, Adam Tinkle undergoes an examination of an analytical framework that he dubs “sound pedagogy”:

Sound pedagogy resonates with critical pedagogy discourses: both claim to offer anti-repressive knowledge, a means towards liberation from entrenched systems of knowledge/power...sound pedagogy promises to free your listening from an artificial and harmful set of prejudices about which sounds are worthy of (aesthetic) attention. Moreover, these listening experiences, artists insist, are accessible to all, certainly irrespective of past musical experience.⁷³

Beginning with Cage’s *4’33”*, Tinkle highlights the ways in which experimental musicians have historically aimed to instill a confidence in the listeners’ own perception of the sound object as “music” worth listening to. While his study primarily focuses on text pieces or any sorts of pieces with verbal instruction (including Young’s Fluxus period), it seems to me that the idea of sound pedagogy could be extended to the realm of absolute music as well, and concretely connected to the music of the early minimalists.

As Michael Nyman stressed in the first textbook survey of minimalism, 1974’s

⁷³Adam Tinkle, “Sound Pedagogy: Teaching Listening Since Cage,” *Organised Sound* 20, no. 2 (August 2015): 223.

Experimental Music: Cage and Beyond, the minimalists stemmed directly from a tradition birthed by John Cage and his surrounding music community. Thus it is no stretch to imagine that the minimalists shared similar philosophical concerns as Cage, among which was the aim to teach one how to listen through the musical art itself.

Consequently, if we presume that the early minimalists embody the concept of commoditized music into their own art, it appears that they are teaching listeners how to listen to mechanically reproduced music as a whole. As I have demonstrated, recording technology re-distributed the power structures of the musical tradition, taking agency away from the artist and giving particularly to the listener. Analogously, the experimental tradition from which minimalism grew aimed to give the listener more agency in exactly how to listen to their surrounding musical culture. For the minimalists, this lesson took the form of an investigation into just how much interest could be sustained in a repeated musical fragment through a focus on texture over harmony. Through training in this way, listeners could adapt their listening habits to the commoditization of the musical object and its inherent repetition. Adorno states, “The terror which Schoenberg and Webern spread, today as in the past, comes not from their incomprehensibility but from the fact that they are all too correctly understood. Their music gives form to that anxiety, that terror, that insight into the catastrophic situation which others merely evade by regressing.”⁷⁴ Schoenberg and Webern commented on the anxiety of their contemporary musical environment—the dilemma of Romanticism and tonality as a fundamental musical element—by presenting themselves as wholly removed from it. While other composers were experimenting with new, innovative ways to be tonal (modal, polytonal,

⁷⁴ Adorno, “On the Fetish-Character in Music and the Regression of Listening,” 298.

etc.), the Second Viennese School broke from tonality altogether, introducing a new and startling concept for what music could be. Their complete rejection of what was presumed to be the core principle of Western music was, as to be expected, utterly controversial. Yet, as Adorno notes, this rejection called greater attention to the dilemma, creating a musical expression for the anxiety wrought by the dilemma itself.

The minimalists—of a different era and mindset entirely—took an alternate, perhaps more effective, approach. Riley, Reich, Glass and, to a lesser extent, Young did not isolate themselves from their surrounding musical culture: they *absorbed* it. By bringing attention to the state of musical culture through their manipulation of sonic material, the minimalists taught one how to listen in the age of mechanical reproduction, displaying their own compositional virtuosity in the process. Like Schoenberg and Webern, the minimalists introduced completely new standards for what art music could be, yet instead of doing so through the rejection of standard musical elements, they did so through the utter engagement with what had become a standard musical medium, the idea of recording. Minimal music is ultimately optimistic, demonstrating that all is not lost in the musical culture that we find ourselves today: there is space for both beauty and creativity in mechanical reproduction.

The Dilemma of Post-Minimalism

With the above taken into account, it becomes clear that early minimalism was as much a commentary on the times as a product of it. It would be difficult to imagine a similar musical development occurring were it not for the rise of recording technologies and the ways in which they impacted globalization, performance practice, and the

concept of repetition. In fact, the minimalists' passions for American Jazz and indigenous global musics were often spurred on through listening to LP recordings and these influences would likely not have made it their way were it not for the birth of the recording medium.⁷⁵ Further, as Robert Fink notes, minimalism may not have caught on with the general public were it not for the Baroque LP revival in the 1950's and 60's: a rise in popularity of Baroque music occurring simultaneously with the commoditization of music. Fink discusses the Baroque LP's newfound usage as a mode for ambient self-regulation of mood and explores the ways that this primed music listeners for a new form of listening. As the record player became more advanced, the listener was no longer required to physically manipulate the record and this new concept of completely passive music listening interlaced nicely with the repetitive patterns of Baroque concertos. As Fink notes, "loosely focused, repetitive listening" became a newly acceptable mode of listening, and one that led logically to the sorts of experiments led by the minimalists.⁷⁶ Thus, minimalism is distinctly tied to the recording industry. Not only does it comment on music's newfound repetitiveness at a meta-level, it would not have taken shape without the changes that the recording industry wrought on musical culture as a whole.

What, then, to make of so-called "post-minimalism," a musical style generally considered as a continuation of minimalism in the late 1970's and beyond? While its title suggests an extension of minimalism and the philosophical concerns contained within, a closer examination reveals a music seemingly unconcerned with the recording technology wedded so strongly to the ideals of the minimalists. As discussed in the first chapter of this thesis, Timothy Johnson's "Minimalism: Aesthetic, Style or Technique?" isolates

⁷⁵ Potter, *Four Musical Minimalists*.

⁷⁶ Fink, *Repeating Ourselves*, 182.

three manifestations of minimalism, defining the ways in which minimalism was evolving at the end of the 1970's. To summarize again, Johnson argues that minimalism as a style implies the use of five key characteristics: continuous formal structure, even rhythmic texture, simple harmonic palette, lack of extended melodic lines, and repetitive rhythmic patterns. Alternately, minimalism as an aesthetic implies using selected features of the style extensively while discarding others and minimalism as a technique implies the use of two or more of these features in tandem with other compositional tools.⁷⁷ Johnson does not go so far as to label minimalism as technique “post-minimalism,” yet the composers which he makes reference to in this regard—John Adams, Louis Andriessen, Michael Torke—safely fit the mold of what would later be called post-minimalism, and Johnson clearly lays the groundwork for this type of nomenclature. In short, much of post-minimalism can be understood as the use of certain features of minimalism mixed with other compositional techniques rather than a hard-lined reduction of means for the scope of an entire piece. Thus, Johnson's minimalism as technique works suitably well to describe the musical style of post-minimalism itself.

A plethora of other historical musicologists have come to describing the fallout of the early minimalists as “post-minimalism,” in the process forming definitions for what this musical style is in the first place. K. Robert Schwarz defines post-minimalism in relation to John Adams, discussing his eclectic vocabulary, rejection of the “mechanistic impersonality of early minimalist pieces,” use of minimalist techniques to achieve emotional climaxes, break from “the bonds of musical process,” harmonic variety with a

⁷⁷ Timothy Johnson, “Minimalism: Aesthetic, Style, or Technique?” *Musical Quarterly* 78, no. 4 (1994): 742–73.

“more rapid degree of change,” and “impure range of stylistic possibilities.”⁷⁸ Potter also sees post-minimalism as a break from many of the conventions of minimalism, denying to label anything past 1975 as true minimalism. He notes elements of post-minimalism that “hard-line minimalism had deliberately negated,” such as “[m]elodic profile, timbral variety and sheer sonic allure,” as well as a “clear separation into melody and accompaniment,” leading naturally to “foregrounding extended melodic materials and harmonic progressions more readily associated with earlier Western musics, and more obviously narrative structures.”⁷⁹ Alternately, Kyle Gann defines post-minimalism as primarily allied to minimalism in the way that it is “tonal, mostly consonant (or at least never tensely dissonant), and based on a steady pulse.” However, Gann finds post-minimalism unpredictable due to the “tendency to take surprising turns,” something rarely seen in early minimalism due to its emphasis on processes one can follow. Gann goes on to state that, “postminimalism has nothing to do with the past, least of all with European Romanticism, it builds on minimalism and looks forward.”⁸⁰

Musicologist Marija Masnikosa synthesizes all of the above to come to a succinct understanding of what to her makes a piece decisively minimalist (and thus, undoubtedly not postminimalist):

highly modernistic rigidity and note-to-note control of the process...; absence of significant contrasts within the process; specific minimalist ‘harmonic progressions characterized by minimal directed or oscillatory changes; absence of hierarchical order in the repetitive model and within the minimalist texture...; contextual neutrality of repetitive models and compositions in general; and noticeable (late modernist) absence of expression.⁸¹

⁷⁸K. Robert Schwarz, *Minimalists* (London: Phaidon Press Limited, 1996), 9, 10, 77.

⁷⁹ Potter, *Four Musical Minimalists*, 16-7.

⁸⁰Kyle Gann, “Minimal Music, Maximal Impact: minimalism’s immediate legacy: postminimalism,” at <<http://www.newmusicbox.org/articles/minimal-music-maximal-impact/>> (accessed 15 February 2016); and *American Music in the Twentieth Century* (New York: Schirmer, 1997), 326-7.

⁸¹Marija Masnikosa, “A Theoretical Model of Postminimalism and Two Brief ‘Case Studies,’” in *The Ashgate Research Companion to Minimalist and Postminimalist Music*. (Burlington: Ashgate, 2013), 300.

As a laundry list of attributes unique to minimalism and discarded within post-minimalism, Masnikosa's noted characteristics come stunningly close to a blanket definition of minimalism in general. One wonders, how could post-minimalism logically follow from early minimalism at all if it contains little to none of the attributes that make minimalism what it is in the first place? I would like to counter Kyle Gann's assertion that post-minimalism represents a step forward through building on minimalism's characteristics. Rather, so-called post-minimalism is an overtly backwards-looking musical practice, synthesizing discreet (and ultimately trivial) aspects of minimalism with previous epochs of music history, aiming to return the whole package to the concert hall and away from the recording technologies that manifested themselves within the musical material itself.

Post-minimalism appears to be an update of minimalism for the post-modern age, consisting of the type of pastiche one often associates with post-modernism in lieu of the rigorous and all-encompassing wholeness of minimalism. In fact, Masnikosa recognizes two branches of post-minimalism. The first, "postmodernist minimalism," refers to the works entirely built on minimalist processes onto which traces of non-minimalist styles are inserted while the second, "postminimalist postmodernism," consists of works that contain a collage of pure minimalist and non-minimalist segments.⁸² While this may seem to be a pedantic exercise in tedious jargon, Masnikosa does well by sketching out these two definitions, delineating a clear separation between musics that may sound different on the surface but stay true to minimalist concepts of process and musics that essentially "dilute" minimalism within an ether of "non-minimalist segments." In the former, an aesthetic surface far removed from what you expect in early minimalism (a

⁸² Masnikosa, "A Theoretical Model of Postminimalism," 302.

wildly dissonant harmonic progression, perhaps) is manipulated using the same guidelines of impersonal process utilized by the minimalists. In the latter, sections that in the moment of their sounding appear aesthetically as hardcore classic minimalism are immediately juxtaposed with sections containing no traces of minimalism at all. The majority of post-minimalism definitions summarized above refer to the latter of these two camps, yet this type of stylistic mix distorts the entire semiotic significance of minimalism in the first place. While the early minimalists tapped into a new mode of listening, imploring one to navigate repetitive textural layers in a way that matched how one could listen to recorded music outside of the concert hall, “postminimalist postmodernism” transplants minimalist aesthetics into the teleological narrative of the old classical canon. When the core concepts of minimalism discussed above fail to operate over the scope of an entire piece, they are utterly destroyed: attention is taken away from them and towards a more overtly subjective reality.

Using the above delineation, we can begin to make sense of the ontological differences between post-minimalist pieces such as Louis Andriessen’s *Workers Union* [Example 8] and John Adams’ *Harmonielehre* [Example 9]. Andriessen’s piece is rhythmically incessant, with each player directed to perform the exact same rhythms at the exact same speed for an ultimate duration of twenty to thirty minutes. At the same time, performers can choose exactly what pitches to play these rhythms on, based on a rough contour given in the score. In this way, the piece acts like a dissonant, twisted cousin of *In C*, giving performers free reign over pitch but rigidly constricting their movement so as to accurately build one homologous sound. Adams’ piece on the other hand, frequently pointed to as one of the pinnacles of post-minimalism, is deeply steeped

in the Romantic tradition. Gone are the objectivity and the incessant repetition, the two *defining* characteristics of early minimalism. Instead, select motives repeat but are swept into a larger, more overtly emotional orchestral texture, of a type that would sound distinctly in place programmed next to a Beethoven symphony and appear distinctly out of place next to the rock LP's on one's record shelf. Both are stunning musical works, but it is tempting to wonder if they really succeed in furthering the concerns of minimalism into the post-modern age. Andriessen's piece is an innovative remix of minimalist practice, revisiting well-treaded statements on the new objectivity of music, repetition as a driving force and collective community. On the contrary, Adams explores what would happen were one to inject emotion and subjectivity back into minimalist practice, a backwards-looking task which undoes much of the minimalists' musings on modern music culture. While Andriessen keeps pace with the minimalists, Adams regresses.

What sort of music would it take, then, to accurately and concretely further the project of the early minimalists? The society we live in today is highly technologized and commoditized, undoubtedly more so than the period in which the early minimalists thrived. With the Internet and the laptop computer, music is both easier to access and easier to make than it has been at any point in music history. As musical culture continues to evolve, it calls for a music even more objectified and mechanically driven than the music of the minimalists, a music which is both repetitive enough to trance out to and intellectually stimulating enough to get lost in, a music which calls your attention to the near-dystopic technologically-driven society that surrounded us while simultaneously making effective use of the same technologies. Forget "post-

minimalism.” As per Kraftwerk, the only logical endpoint of minimalism is “The Man-Machine.”

Chapter Three

Techno: An Alternate Minimalism

This proposed convergence of elite and mass art, which assumes the possibility of a wide audience for this new music, founders on two observations. The music is not casually danceable and it lacks lyrics. It thus requires for its appreciation a kind of sophistication no broad group possesses...The conclusion is inescapable: Reich and Glass have lately written what is no more than a pop music for intellectuals, an easy-to-listen-to music free of the rage so marked in black-oriented music and the pop culture of the 1960s. – Samuel Lipman⁸³

“A Pop Music for Intellectuals”

In Samuel Lipman’s 1979 essay “From Avant-Garde to Pop,” the cultural critic offers his conservative take on minimalism. Lipman sketches a portrait of minimalism as a failed experiment in hybridization too distinctly oriented towards an educated, white middle-class to be regarded as a mass cultural phenomenon yet too unsophisticated to have pronounced artistic merit. Lipman’s racial distinction is valid, however it seems to me that this has more to do with the history of Western art music than it does with minimalism itself. While the history of Western music corresponds to a history of music mainly produced for and by a white, educated audience, the minimalists were trying to move away from this history through their interest in alternative performance spaces and modern distribution methods. Additionally, not only was classic minimalism—particularly Riley’s *In C*, Reich’s *Music for 18 Musicians* and the majority of Glass’ early output—attempting to reach out to a wider audience than would be typically interested in the concert hall, the music itself presented an underlying commentary on the state of music as a cultural product in the mid-twentieth century. While Lipman may decry the ease of listening to minimalism and point to this as an example of its lack of artistic value

⁸³ Samuel Lipman, “From Avant-Garde to Pop.” In *The House of Music* (Boston: David R. Godine, 1984), 47-8.

in the art music world, the sorts of commentary that classic minimalism was engaging with were unprecedented in the classical music sphere.

Therefore, rather than a cutting criticism on minimalism and its proclaimed lack of artistic value, Lipman's commentary seems to be a defensive gesture on behalf of the academic concert music community taken aback by the commercial and capital success of the early minimalists. While the minimalists were trying to point to and move away from the problems of narrow accessibility ingrained within art music history, it would be impossible to completely separate from these problems. Thus, Lipman notes these issues (specifically the orientation towards a niche audience) and throws them completely on the minimalists, without noting their prevalence in the classical tradition that the minimalists were actually trying to distance themselves from. Conversely, the simplicity of the music that Lipman decries was in fact ingrained within this same process of distancing from elitist Western music history and towards a more communal plane of musical experience. Minimalism, the author asserts, is not cutting-edge and groundbreaking in the way that avant-garde art should be, yet not oriented towards a wide enough audience to be viewed as pop music. Accordingly, as "a pop music for intellectuals," Lipman sees minimalism as a lesser form of both styles. Yet, much like Adorno's "light" and "serious" music, a separation into distinct categories of this sort fails to mean much of anything in the age of recording. Rather than categorizing classic minimalism in reference to earlier strains of music history, it should be noted for what it is: a distinct movement in Western art music, tied to similar, parallel developments throughout the world.

As I have discussed, popular and vernacular musics developed along with recording technologies and the capabilities of distribution introduced to the general

public. While the academic music community often remained ignorant of this development, inventing labels like “post-minimalism” to denote advances in classical music that weren’t so much “post-minimal” as they were “anti-minimal,” distinct musical movements were taking place in the vernacular music world. Yet, as Charles Hamm notes, many of these movements have gone under-examined in academia. Although the birth of recording allowed for a popular music work to live on eternally in a way analogous to a notated score, much of early popular music scholarship focused on the lives of composers, performers and song lyrics rather than the musical elements themselves. Further, Hamm notes a variety of modernist narratives that have directed scholarship on popular music, privileging one musical genre or style above others on grounds of artistic superiority or authenticity, often excluding what happens to be the most commercially successful products of the music industry. Thus, Hamm argues, popular music literature has dealt mostly with marginal or oppositional genres as an attempt to demonstrate their “authenticity,” generally neglecting the commercially successful artists who have managed to find common ground with a large portion of society.⁸⁴

Instead of being dismissive of the most commercially successful musical genres and treating them as a lesser form of art, scholars should embrace them for the cultural revolution that they are: a music for the people, by the people. In response to Samuel Lipman, I argue that the distinction between popular and avant-garde is moot in today’s world. Music can be both cutting-edge and accessible to a large group of people, as I will demonstrate with techno, referring specifically to a sub-genre of electronic dance music

⁸⁴ Charles Hamm. “Modernist Narratives and Popular Music” in *Putting Popular Music in Its Place* (Cambridge: Cambridge University Press, 1995), 6, 17, 36.

birthed in Detroit with the works of Juan Atkins, Kevin Saunderson and Derrick May. By examining the ways in which techno maintains a dialogue with the considerations of the early minimalists, I hope to reveal its artistic merit and cultural value.

“From Avant-Garde to Pop”

Keith Potter’s *Four Musical Minimalists* ends with a discussion of Philip Glass’ influence on Kraftwerk, examining the ways in which the German synthpop icons explored ideas of motivic repetition following the high commercial success of Glass and translated these concepts to the step-sequencer.⁸⁵ Notably, Simon Reynolds’ historical tome on the underground rave scene of the ‘90’s, *Generation Ecstasy*, begins with an examination of the same group. From a purely technical standpoint, Kraftwerk can be seen as the direct forefathers to techno, programming drum machines and step-sequencers to repeatedly loop sequences of notes and rhythms, creating robotic grooves and infinite cycles [**Example 10**]. Indeed, as Reynolds elaborates, Kraftwerk had a profound impact on the African-American youth associated with techno’s inception, specifically in Detroit.⁸⁶

While Kraftwerk may have been the first to create danceable grooves through impersonal repetition, they were by no means the first to rely on the step-sequencer as a means of creating repeating, hypnotic melodic cycles. Approximately three years earlier, Tangerine Dream explored the repetition of motivic cells without the aid of electronic drums to drive the beat forward. Led by Edgar Froese and a rotating cast of musicians, Tangerine Dream put forward a prolific output and helped develop what became known

⁸⁵ Potter, *Four Musical Minimalists*, 339-41.

⁸⁶ Simon Reynolds, *Generation Ecstasy* (New York: Routledge, 1999), 14.

as the “Berlin School,” [Example 11] a style of subdued repetitive electronic music that contrasted with the more percussive, rhythm-oriented sounds of Kraftwerk’s “Düsseldorf School.” Even earlier, in the late 1960’s, American composer David Borden was recording and performing minimalist, cycle-based compositions with his synthesizer ensemble, Mother Mallard’s Portable Masterpiece Company. Thus, by expanding the scope of early minimalism from the four “forefathers,” it is already clear that the late 1960’s and 70’s were saturated with groups exploring variations of minimalist techniques in the context of pure electronic sounds.

Yet, records of concrete lines of influence among these different groups are slim. While David Borden frequently performed pieces by Riley, Reich and Glass, presumably in contact with the core members of the minimalist movement due to his proximity in New York, the early “Berlin School” composers were quite removed from the musical movements taking place in the United States.

Michael Hoenig, an early “Berlin School” pioneer, began experimenting with tape loops long before hearing a single note from the minimalists. In an interview with myself, he explained:

I got turned on to music without having any musical education whatsoever...and I started playing with tape loops, recording several loops to a cassette tape recorder that could record on one track at a time and then bounce over to the other track. Using scissors and splicing tape, I created loops of varying length that were finally recorded to a second tape recorder. Eventually, [through my time with an ensemble inspired by Cornelius Cardew’s Scratch Orchestra,] I was introduced to a composer named Thomas Kessler who ran an experimental recording facility dubbed ‘Electronic Beat Studio.’ I played him some of my pieces and he introduced me to a band, Agitation Free... After four to five weeks of playing with the band, Thomas played us a piece of music that he wanted us to replay as a matter of practice – first without revealing the name of the composer. And what he played was [Terry Riley’s] *Church of Anthrax*...And I thought, ‘Wow, there is somebody doing loops!’ I had never heard anyone in music doing loops and I thought I was just playing with something mysterious and unusual, so naturally I

was completely fascinated... And as Agitation Free was integrating my loops into their improvisations, we soon performed with another band in Berlin that incorporated loop-like elements called Cluster. Occasionally, Tangerine Dream was also experimenting with loopish phrases, quite a while before we integrated step-sequencers... We were all exploring the same musical phenomenon from different angles—but completely independently of each other. These were all things that were completely separate but in a similar movement.⁸⁷

Further, minimalism may not have even made its way into German culture were it not for Hoenig. Together with journalist Walter Bachauer, Hoenig organized a week-long music festival in Berlin in 1972, bringing Steve Reich from the United States to perform *Drumming*, among others. As Hoenig explained,

in '72, Steve came to Berlin and played *Drumming*, and that was really the first time that German audiences were exposed live to that kind of music. Only specialists had heard of *In C* and nobody had heard the tape loop pieces of Steve... So what happened in Berlin was completely independent from what happened in New York and only overlapped, starting I think in '72 when suddenly... Terry's *In C* was played on the radio often and Steve played live in Berlin. And that's what started the convergence.⁸⁸

This festival later manifested itself as the Meta-Musik festival from 1974 to 1978 and throughout its run, Bachauer and Hoenig brought Riley, Reich, Glass and several West Coast avant-garde composers to Berlin, contrasting their music with indigenous musical groups such as a drumming ensemble from Africa and a Balinese gamelan ensemble.

Hoenig stressed that these festivals expanded the listening bases of minimalism,

introducing its ideological concerns to the larger German public:

I think [through Meta-Musik] we introduced the principle of repetition, or the idea of repetition as a philosophical element of infinity—this was a musical concept that was completely despised by the intellectual music establishment at the time; serialism and post-serialism still dominated at the altar of Donaueschingen...⁸⁹

⁸⁷ Michael Hoenig. Interview by Author. FaceTime. March 17, 2016

⁸⁸ Ibid.

⁸⁹ Ibid.

Hoening's endeavor to bring the early minimalists to Germany may have had repercussions on some German electronic acts. Anecdotal evidence suggests that Tangerine Dream's Froese met Terry Riley at the 1974 Meta-Musik festival, having already been very influenced by Riley's *Rainbow in Curved Air*.⁹⁰ Riley himself has pointed to this connection: "[Froese] said I was one of the reasons he started Tangerine Dream," Riley stated in an interview.⁹¹ Yet, regardless of this possible connection, there is no link to be found between Tangerine Dream and Kraftwerk. Hoening claimed,

If you could ask Edgar, Can! and Kraftwerk, they were kind of remote friends, and the band I played in, Agitation Free, we often performed with Can!...But Kraftwerk never seemed in that circle—nobody ever talked to them nor did we play together with them, it was an entirely separate development...But on the other hand it shows you, Florian [Schneider] at the time was also working on loopish things, although they were much more pop-oriented, they were always in fours—but it was another parallel development, and as another parallel development alone, it's interesting.⁹²

One missing link between many of these parties can be found in one of classic minimalism's early associates, John Cale, who was involved in a New York-based art rock group tangentially connected to German culture: the Velvet Underground. As the violist for that group and La Monte Young's Theatre of Eternal Music, Cale was heavily involved in both what was known as the "art rock" music scene and the circle of the early minimalists, experimenting with viola drones and thick textures in both contexts. Yet, the Velvet Underground made an impact on German culture long before minimalism made its way there. The group's first album, *The Velvet Underground & Nico* (1967), featured the German singer Nico, and significantly impacted West German rock and early

⁹⁰ Bill Alves. Interview by Author. Claremont, CA. February 26, 2016.

⁹¹ Anil Prasad, "Lighting Up Nodes," at <<http://www.innerviews.org/inner/riley.html>> (accessed March 20, 2016).

⁹² Hoening.

electronic music of the late 1960's and early 1970's.⁹³ Indeed, Reynolds explicitly notes that Kraftwerk were, "inspired by the mantric minimalism and non-R & B rhythms of the Velvet Underground."⁹⁴ Further, Cale was heavily involved in Riley's *Church of Anthrax* (actually billed above Riley on the album's cover), which Hoenig noted above as his concrete entryway into minimalism [Figure 3].



Figure 3 – Terry Riley and John Cale's *Church of Anthrax*

The early minimalist's innovative embrace of the recording industry and willingness to extend themselves outside of the realm of academic concert music ensured they made a significant impact on commercialized popular music, from the La Monte Young-indebted drones of the Velvet Underground to the Riley-like repetitive motivic figures of Tangerine Dream. Nonetheless, while concrete lines of influence may be found in figures such as John Cale, it would seem that an exploration of Germany's early

⁹³ Sean Nye, "Minimal Understandings: The Berlin Decade, The Minimal Continuum and Debates on the Legacy of German Techno," *Journal of Popular Music Studies* 25, no. 2 (2013), 159.

⁹⁴ Reynolds, *Generation Ecstasy*, 13.

electronic music pioneers actually reveals an independent growing interest in repetition and loops, what Hoenig described as a fundamental “yearning for another side to music.”⁹⁵ Hoenig repeatedly stressed that the plethora of movements in Germany were all parallel developments and should be viewed as such. While one could paint a lineage from La Monte Young to the Velvet Underground to Kraftwerk and to techno as a whole, there will always be key figures like Michael Hoenig who claim to have come upon their musical style completely removed from these lines of influence. These claims are more than plausible. If we are to believe that Glass came to his idea of process without the influence of Reich, we may just as easily accept that countless movements similar in ideology and aesthetics to early minimalism could sprout up independently. Thus, rather than the forefathers of the increasingly detailed experiments in electronics that I will explore in this chapter, the early minimalists should be viewed as the first in the art music tradition to tap into a broader cultural movement which manifested itself independently in a number of ways. Each manifestation implores us to explore what this deeply-rooted interest in rhythm, repetition and objectivity says about human nature. The following exploration of techno is a look into one of many minimalisms of our time.

On Repetition

Of the surface-level similarities between classic minimalism and techno, the most obvious is the emphasis on repetitive motivic figures. While a significant development for the minimalists, who grew up in an art music community that associated rote repetition with intellectual regression, repetition in techno is a function of both the technologies used to create techno and the surrounding cultural environment. One could

⁹⁵ Hoenig.

argue that techno artists are investigating similar ideological concerns as the minimalists in their emphasis on repetitive figures (music as commodity, music in the age of digital reproduction, etc.) but it would be misguided to suggest that their exploration of repetition was a direct product of the art music community.

Rather, throughout the course of the nineteenth century, repetition (through both harmony and pulse) permeated nearly every commercialized popular genre. Notably, it was often African-American music that led the trend in this regard. Susan McClary notes a “gradual but pervasive African Americanization” in twentieth century popular music, deeming black pop music the most clearly responsible for the turn from teleological heroic narrative to cycles of kinetic pleasure. Supporting this claim, she cites African-American genres as varied as, “ragtime, blues, jazz, R&B, gospel, doowop, soul, rock, reggae, funk, disco, [and] rap.”⁹⁶ Thus, techno and its various offshoots should be viewed as essentially another step along this African-American musical heritage; all three founders of Detroit Techno were black and explicitly sought to draw from African-American musical idioms rather than a tradition of Western art music. As minimal techno pioneer Robert Hood notes, “even though [minimal techno] is focused on minimum structure, it’s focused on maximal soul.”⁹⁷

Therefore, sketching a lineage of repetition from the early minimalists to the birth of techno music runs the risk of distorting history through illustrating one line of influence from Western art music to what was originally predominantly African-

⁹⁶ Susan McClary, “Rap, Minimalism, and Structures of Time in Late Twentieth-Century Culture,” in *Audio Culture: Readings in Modern Music*, ed. Cristoph Cox and Daniel Warner (New York: Continuum, 2004), 295, 294.

⁹⁷ Felipe Delerme, “Interview: Robert Hood,” at <<http://www.thefader.com/2013/08/26/interview-robert-hood>> (accessed 23 February 2016).

American musical expression. The repetition of classic minimalism was itself influenced by global music traditions—the harmonic stasis of Indian classical music, the repetitive cycles of Indonesian gamelan and the rhythmic variety of African drumming—as well as the explosion of American Jazz in the early twentieth century, a historically African-American musical idiom reliant on underlying harmonic repetition and the drum kit’s constant groove. While revolutionary in the context of Western art music, the repetition of early minimalism was simply an integration of ideas that had been floating around the ether of global musical culture for centuries. Thus, the repetition of minimalism was nothing new and minimalism does not deserve the credit for the significance of repetition in techno music.

If anything, the proliferation of repetition throughout minimalism, techno and popular music as a whole would seem to be an indication that humans *enjoy* repetition. It would be impossible to single repetition down to a single source as it is so pervasive throughout global music. While the art music world still privileges teleological narrative over motivic repetition, we should take note of the mass public’s gravitation towards repetition within the musical object itself. Philosopher Gilles Deleuze considers two types of repetition: “One is a ‘bare’ repetition, the other a covered repetition, which forms itself in covering itself, in masking and disguising itself.”⁹⁸ In other words, one form of repetition lays itself bare on the outside, objectively repeating to hide a changing internal meaning. On the other hand, one repetitive idea can manifest itself in a variety of ways, appearing different on the outside yet incessantly static on the inside. Is not the heightening of teleological development within academic music simply an instance of this “covered repetition,” with similar musical narratives disguised as individual,

⁹⁸ Gilles Deleuze, *Difference and Repetition* (New York: Columbia University Press, 1968), 24.

complex narratives? Inversely, the “bare” repetition that Deleuze speaks of, manifested clearly in the mechanical repetition of minimalism and techno, “appears only in the sense that another repetition is disguised within it, constituting it and constituting itself in disguising itself.”⁹⁹ As instances of this “bare” repetition, minimalism and techno point to the human attraction to repetition throughout other facets of society. The repetition of our everyday life is disguised within the repetition of minimalism, techno and popular music, yet it is through this repetition that we become more aware of our cultural surroundings.

However, once again, the mere presence of repetition in minimalism and techno does not blatantly indicate a connection. Rather, similar outwards-looking modes of thinking and the citation of the surrounding musical community connect the two styles, in both cases manifesting itself as incessant, mechanical repetition. This is not to say that the expansive project of early minimalism was a direct influence on every techno artist. It is more likely that the founders of techno music developed this mode of thinking independently, yet profound similarities such as this one reflect the parallel developments of “alternate minimalisms” within the age of recording. With the minimalists, repetition was borne out of an awareness of global musical cultures and grew so pervasive as to have its own underlying ideological significance in regards to technological musical developments of the time. With techno, the focus on repetition came from an awareness of early German electronic music and the growing world of American popular music within which African-American genres led the cutting-edge.

Ultimately, in a sort of feedback loop, the repetition of techno also comments on surrounding technological innovations through its explicit use of technology such as sequencers, drum machines and computer programs like Ableton Live that are explicitly

⁹⁹ Deleuze, 21.

designed for the repetition of pre-programmed four and eight bar loops. As Ralf Hütter of Kraftwerk states, “The employment of computers leads inevitably to minimalism. We play the minimalist sound-track of our era, we don’t want a Baroque overkill.”¹⁰⁰ The name “techno” itself—coined by Atkins, May and Saunderson for a 1988 compilation *Techno! The New Dance Sound of Detroit*—points to the pronounced role of technology in the blending of African-American popular idioms such as Chicago House and disco with European electronic music. As its repetitive nature demonstrates, techno is a music literally shaped by the technology that it uses, rather than a music informed by but relatively divided from the technological world. While this has been a trend throughout music history—as noted earlier—techno artists made use of a completely new type of technology far removed from the acoustic instruments of the Western classical tradition.

“minimal” Vs. Minimal

One could imagine that some future history of music will describe the period starting in the late 20th century as follows: “Our current musical language arose in the 1960s and 70s. In its nascent, simplistic state it was at first mistaken for a full blown style in itself, and was termed ‘Minimalism.’” – Kyle Gann¹⁰¹

While I argue that the repetition of techno is not directly influenced by the repetition of early minimalism, it will be fruitful to consider the two fields as parallel movements. Techno is minimal in several ways: the reduction of musical materials, the repetition of simple musical motives and the reduction in performing forces (often solely one or two human beings). Yet, in techno, we see explicitly that lower-case “minimal”

¹⁰⁰ Willi Andresen, “Article and Interview: Kraftwerk,” at <http://www.thing.de/delektro/interviews/eng/kraftwerk/kwx-91.html> (accessed 22 February 2016).

¹⁰¹ Kyle Gann, “Seeds of Minimalism: An Essay on Postminimal and Totalist Music,” at <http://www.kylegann.com/postminimalism.html> (accessed March 20, 2016).

and upper-case “Minimal” can connote very different things. In the coming pages, I will use Minimal art in reference to a form of intellectual art music represented most strongly by classic minimalism and manifested in many forms of popular music. As exemplified by its manifestation within classic minimalism, Minimal art is driven by ideological concerns of expansion and redistribution, aesthetic concerns of repetition, objectivity, and process, and an overall interest in perceptual illusion and the interplay between the objective and the subjective.

The simple fact that much techno music is physically minimal by nature does not make it Minimal in ideology. Rather, as Philip Sherburne notes in his essay “Digital Discipline: Minimalism in House and Techno,” minimalism manifests itself in two conflicting ways: *skelatalism* and *massification*:

Skelatalism is the imperative to carve everything inessential from dance music’s pulse, leaving only enough embellishment (syncopation, tone color, effects) to merit the variation. . . Massification, on the other hand, represents the strain of electronic dance music that attempts to create extreme densities with a relative paucity of sonic elements. In many ways, this strategy matches the movement of classical minimalism from simplicity towards an ever more complex array of shifting pulses and polyrhythms.¹⁰²

This first trend, *skelatalism*, is exemplified by early minimal techno pioneers Richie Hawtin (AKA Plastikman) [**Example 12**] and Robert Hood. Minimal techno may actually be further removed aesthetically from classic minimalism than its name implies, often foregoing minimalism’s emphasis on textural density and perceptual puzzles in exchange for a reduction of materials that emphasizes the space in between the notes. As Hawtin notes, “I’ve always been trying to leave space so that people can interact with the kick, the hi-hat and the clap and feel that the music isn’t too cluttered for them to join

¹⁰² Philip Sherburne, “Digital Discipline: Minimalism in House and Techno,” in *Audio Culture: Readings in Modern Music*, ed. Cristoph Cox and Daniel Warner (New York: Continuum, 2004), 324-5.

in.”¹⁰³ This emphasis on empty space is far removed from the sound of early minimalism and its interest in perceptual illusion. From a purely aesthetic level, then, the most minimal of techno is often not quite as Minimal as classic minimalism.

Massification, on the other hand, as demonstrated by production duo Voices from the Lake [**Example 13**], is much more of a kin to classic minimalism and the idea of Minimal art. While we still have a reduction of materials, the music’s power lies in the way texture is manipulated and accumulated. Additionally, as with classic minimalism, a focus lies on psycho-acoustic byproducts. One could easily get submerged in this music, hearing the downbeat in a variety of places and imagining sounds not actually programmed in any one instrument due to the complex interplay of textures. The sounds themselves, for the most part, do not distinctly refer to any particular drum sounds, further puzzling the brain in the question of what is even being heard in the first place. While *skelatalism* strives for empty space, *massification* aims for textural fullness and interplay among overlapped, yet reductive, layers of sound. Both, however, rely upon a systematic working-through of limited materials and in that regard, one could argue that both are distinctly tied to classic minimalism in a compositional sense.

Of particular interest are the techno producers who straddle the line between these two forms of minimalism. Thomas Brinkmann is known for his austere, cold compositions, often focusing on an extreme reduction in variety of sound itself. Rather than the distinct sounds of the kick, hi-hat, and clap referred to by Hawtin, Brinkmann has taken to recording and looping sounds of the physical record itself through cutting into locked grooves with an Exacto knife [**Example 14**]. In his landmark records *Klick*

¹⁰³ Dimitri Nasrallah, “Richie Hawtin: Master of Minimalism,” at <http://exclaim.ca/music/article/richie_hawtin-master_of_minimalism> (accessed 22 February 2016).

and *Klick Revolution*, the absence of sound variety would seem to be an extreme case of *skelatalism*. Yet, the records are at the same time perfectly exemplary of *massification*. As the locked grooves and abstract hisses collide in a complex textural mass, the mind struggles to make sense of what sounds are physically present and what sounds are an illusion. Moreover, like *Voices from the Lake*, the abstract nature of the sounds becomes a perceptual puzzle within itself.

Brinkmann represents a contemporary manifestation of capital-M Minimal art. In an e-mail interview, he said of his own work: “It’s about time, how to get rid of time (and space) in music and how to reject ‘entertainment’...Simultaneity...in pictures: all is there in the same moment. Maybe slow displacements. (but this is an illusion)...”¹⁰⁴ His interests in perception, the rejection of mindless pleasure, and the creation of a aesthetically unified, continuous sound object would seem to be akin to the projects of the early minimalists as explored in the first chapter of this thesis. Yet, in my conversations with Brinkmann, he indicated little interest in Young, Riley, Reich and Glass. Rather, his greater inspirations came from artists such as Nancarrow, John Cage, and Morton Feldman, themselves (particularly Cage and Feldman) responsible for the turn towards the Minimal in the 1960s. Thus, we see again that rather than being a direct continuation of early minimalism, techno is often similar to but uninformed by the works of the minimalists themselves; techno is an “alternate minimalism,” parallel to early minimalism in conception yet distinctly tied to the style in its aesthetic and philosophical exploration of Minimal art. While the early minimalists minimized content primarily through the use of diatonic and modal pitch materials and a sense of harmonic stasis, the most innovative techno producers restrict their choices of sounds and timbres as tightly as

¹⁰⁴ Thomas Brinkmann. Interview by Author. E-Mail. Claremont, CA. February 24, 2016.

possible. Minimalism, the “Berlin School,” the “Düsseldorf School,” and techno: all parallel developments, distinct yet significant in their numerous similarities.

Process & Meta-Process

A persistently-looping, dense collection of riffs provides a dense layering of textures without pre-determining the listener’s path of focus. In this manner, a listener is able to construct his/her own process(es) of attention, creating a unique sonic pathway and manifesting a form of mastery over the ordering of these looping elements. This contingent and improvised process is then made available to process pleasure. In other words, the listener can imagine the structure that provides the process that engenders process pleasure. – Luis-Manuel Garcia¹⁰⁵

Techno is a music of layers. That is to say, from a textural standpoint, techno is dense. Even at its most minimal (Hawtin’s kick, hi-hat, and clap), there are enough distinct planes of movement for any listener to experience this music in different ways. As Garcia writes above, choosing exactly what to listen to within a techno track can be a distinctly rewarding experience. One could, for instance, tune in to the hi-hat. Perhaps it alternates between sounding on every beat for a grouping of 16 measures and not sounding at all for another grouping of 16 measures [**Example 15**]. Once this pattern is discovered, the listener has the opportunity to anticipate how the hi-hat will operate over the course of the track, growing to expect these alternations of 16 measures. Thus, techno offers a wholly unique musical experience: one can give into the awe and wonder of hearing a piece of music for the first time while simultaneously learning to predict exactly how each layer will progress.¹⁰⁶ These predictions may be incorrect (and in fact, the most engaging techno is often that which actively challenges our predictions) but the

¹⁰⁵ Luis-Manuel Garcia, “On and On: Repetition as Process and Pleasure in Electronic Dance Music,” in *Music Theory Online* 11: 4 (2005), 11.

¹⁰⁶ While one could argue that the same could be said of early minimalism, the difference lies in the sense of scale. A process of alternation of 16 bars is much easier to follow than the gradual process of phasing, for example.

fact that we are able to intelligently make predictions at all gives listeners more involvement in the track's proceedings.

The processes that I refer to in relation to techno music are generally distinct from the processes explored by the early minimalists, although some analogous processes remain. Overall, the fact that the formal structure of the music is governed by process ties it closely to the experiments of the minimalists. As I will demonstrate, process in techno occurs on two planes: within the track itself and within the context of the track as DJ tool.

Within the track itself, one primary process is the reliance on 4- and 8-bar loops as a guiding structure, exemplified by the hi-hat example above. When one fully “tunes in,” one quickly learns to anticipate these even, symmetrically structured phrases and becomes prepared for alternation or change. Sometimes changes occur more gradually, yet they are nearly always delineated by a structure of four or eight bars, often due again to the technology used to make the track. Many step-sequencers, for instance, only provide options for looping sequences of four, eight or sixteen bars. This process of gradual, even change or alternation—what I will call *symmetrical alternation*—is quite distinct from Reich's phasing or Glass' additive rhythm. Using Glass' *Two Pages* as an example, while one could easily “tune in” to the process, learning to anticipate the vague direction in which the music will proceed in a mode similar to listening to techno music, a 4/4 repetitive groove would be by its very nature impossible [**Example 16**]. The process of adding or subtracting a note or groups of notes leads to a sense of asymmetry that, while engaging and open to anticipation, leads to a far different experience than a symmetrical guiding structure of four or eight bars. With techno, we see a process that can engage intellectually while working functionally as music to dance to.

In contrast, one of techno's larger scale processes—the building up and breaking down of its various components—is identical to one of Steve Reich's techniques. This technique, additive process (as distinct from Glass' additive rhythm), is the “gradual assembly of a unit within a predetermined and unchanging time frame...” to build rich rhythmic and textural patterns.¹⁰⁷ This technique as seen in Reich's pieces is nearly identical to its uses in techno, as Reich often structures the technique with four-bar groups. As demonstrated in Section II of his *Music for 18 Musicians*, empty space in the looping, repetitive figures is filled with an extra melodic note or percussive hit until the loop is saturated with textural detail in a process that operates via groups of four measures [**Example 17**].

An identical—albeit more complex—process can be seen in techno artist Monolake's “Plumbicon” [**Example 18**] Throughout the entire eight and a half minutes of this piece, the listener hears the gradual assembly of rhythmic and harmonic elements, overall progressing in groups of four bars but often surprising through changes that occur after two bars or even one. This track is a notable example of how the additive process can be blended with the *symmetrical alternation* process described above. While the arc of the piece as a whole is one of gradual assembly (with the underlying harmonic chords not entering until the very last minute and a half), Monolake often removes elements and then adds them back in with subtle tweaks, playing with the listener's expectations of alternation. Overall, this process of additive assembly allows the listener to fully lock into the formal progression of the piece and anticipate major changes. Yet, at the same time, uncertainty regarding what exactly will be added, the overlapping of the processes of

¹⁰⁷ Warburton, “A Working Terminology for Minimal Music,” 148.

separate elements and a blending with the symmetrical alternation process keep the listener on edge.

In the context of the DJ mix, the process of additive assembly and disassembly serves a higher purpose: the blending together of completely distinct musical works. It is the DJ's job to ensure that as the elements of one track are disintegrating, the elements of another are subtly entering in. In this way, a DJ mix becomes a seamless blend (typically anywhere from one to four hours) and a large-scale narrative may begin to unfold through the selector's chosen progression of tracks. At this level, the solitary techno track itself becomes one single element in a much larger—and arguably more meaningful—process.

This phenomenon in techno is similar to the ways in which discrete movements operate in large-scale minimalist pieces. Robert Fink goes so far as to comparatively analyze Reich's *Music for 18 Musicians* and the concept of a DJ mix, noting that each section of the piece uses additive and subtractive processes to create a symmetrical buildup and breakdown similar to the forms of many 12-inch disco remixes.¹⁰⁸ Many other large-scale Reich pieces, such as *Drumming*, utilize additive assembly and disassembly to create a blend between movements, as contrasted with Glass who often abruptly and instantaneously jumps from one movement to the next. Both processes, however, are representative of DJ techniques: while far less common, DJs will frequently jump abruptly from one track to another, given that the tempos are roughly equivalent. One could argue that this makes all of music equivalent to the sound of a DJ mix. Yet, the difference lies in the time often granted in between individual movements in a classical work or between tracks on an album. In both the DJ mix and large-scale minimalist

¹⁰⁸ Fink, *Repeating Ourselves*, 48.

pieces, there is no distinct separation in between the small components that make up the work. Rather, all parts blend together into a seamless whole.

In the context of a DJ mix, the techno track itself is a cog in the machine that drives a much larger process and a much larger narrative. The insignificance of the solitary DJ track in the context of the larger process of the DJ mix is accentuated by certain techno tracks that are focused solely on “microscopic variations on a single rhythmic theme... [A]s fodder for performance in the hands of the DJ...records like these are often rightly described as ‘DJ tools,’ something like Lego bricks for the selector’s toybox.”¹⁰⁹ [Example 19]. Thus, a lack of variation entirely can serve just as much of a function within a DJ mix as gradual assembly and disassembly. In both cases, the process-based nature of the track itself as well as the mix as a whole allows conditioned listeners to anticipate where the sonic material is proceeding to or, at the very least, how and when the material will be proceeding. Just as one can track the process of an early minimalist piece, one can learn to track the process of the techno track and the DJ mix, leading to a heightened sense of embodiment similar to the repetition-based embodiment discussed earlier. As one learns to anticipate when changes will occur, these changes themselves become a distinctly rewarding experience on the part of the listener.

Finally, DJ culture is centered around the idea of the remix, studio-based re-workings of pre-existing tracks. Thus, the techno track itself is often a work in progress, available to be snatched up by any other music producer and re-configured as they wish. Kevin Martin, popularly known as The Bug, states, “People have lost respect for the song, it’s no longer considered sacrosanct...it’s almost like musicians are accessories to

¹⁰⁹ Sherburne, “Digital Discipline,” 320

the process now.”¹¹⁰ In other words, remix culture interrogates the idea of the eternal “finished product,” which Hamm had pointed to as a defining feature of the modernist narrative used to legitimize classical music as a “high art.”¹¹¹ The techno track is a constantly fluid musical object: anything and everything is open to re-interpretation and further development. This may help explain the neglect that techno music and electronic dance music in general has generally gotten from music academia, in comparison to other strains of popular music that are more fixed in lasting notated value.

While La Monte Young’s work does not often enter the conversation in relation to electronic dance music due to its lack of pulse, we can see here an interesting analogy with his own artistic philosophies. Speaking of his utopian vision of the Dream House, Young wrote, “Dream Houses will allow music which, after a year, ten years, a hundred years or more of constant sound, would not only be a real living organism with a life and tradition of its own but one with a capacity to propel itself by its own momentum.”¹¹² While the composer was never able to fully make this vision a reality, it would seem that remix culture has finally caught up with him. In modern times, music is finally the living organism that Young strived to create thanks to the living process of the remix.

¹¹⁰ Reynolds, *Generation Ecstasy*, 278-9.

¹¹¹ Charles Hamm. “Modernist Narratives and Popular Music,” 17.

¹¹² Potter, *Four Musical Minimalists: La Monte Young, Terry Riley, Steve Reich, Philip Glass* (New York: Cambridge University Press, 2000), 79.

Objectivity

It is not the process of the loop's repetition that is disappointing, for it always successfully leads back to a starting point. I experience the same thing at least twice. By virtue of being objectively the same, it's an opportunity to observe the changes in my subjective experience, to experience change as a second order observer—a change that is not limited to linear progression. – Diedrich Diederichsen¹¹³

In the abstract, techno music (and electronic dance music as a whole) could be considered the ultimate fantasy of the early minimalist composers. It is a music that is incessantly repetitive, completely removed from academia, and governed by process on both a small and large scale. Most of all, it represents the logical endpoint of the minimalists' explorations of objectivity in music. In techno, the performing musician's subjective experience utterly disappears from the sounding musical object. In fact, the performing musician as traditionally conceived in Western musical history is nowhere to be found, replaced by the DJ or the live operator of step-sequencers. Yet, rather than a disappearance of musicianship, what has occurred is a change in what it means to be a musician in today's musical culture. As I have explored, rhythm has become the new center of attention; the level of care given by audiences throughout music history to the ways in which composers manipulated harmony and melodic movement has been replaced by the manipulation and repetition of rhythm as representative of musical narrative. While not quite as evident in performance as the classical musician, the techno musician must still have a keen sense of rhythm, both in the programming of sequences and in their live performance, as well as an intuitive ear for texture and knowledge of electronic timbre manipulation.

¹¹³ Diedrich Diederichsen, "Living in the Loop," in *Red Hook Journal* 1:11 (2011), 11.

Nonetheless, in live or recorded techno performance, the computer is in full control as the musical process is performed by an army of machines. While the human mind must still conceive of and deliberately compose this music, it can wholly run itself to its completion. Nearly every minute detail can be programmed into the computer so as to be performed in an exactly prescribed manner. Therefore, the actual sound product of techno music is about as objectified as possible. Expressive techniques used to indicate subjective experience across musical boundaries, such as *rubato* or variations in the use of vibrato or the voice, are not often found in music as rhythmically incessant and robotically driven as techno. While a subjective mind must create the music that listeners here, the fully functional dance music is performed by robots themselves.

Kraftwerk were actively involved in exploring the limits of objectivity in music, using robots, cyborgs and machines as a constant motif throughout their album covers, titles, performances and musical output [Figure 4].



Figure 4 – Kraftwerk’s “The Man-Machine”

David Reinecke notes that, “Performing live, Kraftwerk simply had to trigger the sequencers to start a chain of musical events... the sequencer worked regardless of its human operators’ capacity to see each other or even be present at all.”¹¹⁴ This focus on performance as robotic demonstration leads comfortably to what we label techno today, as can be seen in the way that the genre itself has been shaped by the development of technologies built distinctly for repetitive loops. While Reinecke argues that techno music has *not* become a “space of mechanical objectivity” due to the belief that the human element “reasserts itself with non-human aspects,”¹¹⁵ I would argue that what is hidden behind the aesthetic musical surface is beside the point in this context. Techno music is a music literally performed by robots and perceived as incessant mechanical repetition. For that reason, techno should be regarded as a culmination of experiments in musical objectivity. The human element in techno resides in the deliberate composition of its musical materials. In my listening, this human element is completely tangential to the sounding performance of the piece. As Thomas Brinkmann stated, “Subjectiv [*sic*] control...you have to leave it behind.”¹¹⁶

Ultimately, an extreme level of objectivity can heighten listeners’ own subjective experiences. As cited by cultural theorist Diedrich Diederichsen above, the experience of hearing the identical musical object (or loop) multiple times allows listeners to hone in on their own perceptual capacities. The changes that one hears in the repetition of a loop reflect one’s subjective interpretation of identical musical material. Therefore, the persistently looping fragments that listeners hear over and over again give them agency

¹¹⁴ David Reinecke, “‘When I Count to Four...’: James Brown, Kraftwerk, and the Practice of Musical Time Keeping before Techno,” *Popular Music & Society* 32: 5 (2009), 613.

¹¹⁵ Reinecke, 615.

¹¹⁶ Thomas Brinkmann. Interview by Author. E-Mail. Claremont, CA. February 24, 2016.

over the music, making them aware of their subjectivity and giving them the power to hear the music as they wish.¹¹⁷ It would seem, then, that the experiments in objective and subjective repetition conducted by the early minimalists were, in a sense, directly training listeners to listen to the purely objective repetition of techno. The early minimalists made us aware that a closer listening could reveal variance in music that appeared to be objectively identical from a distance but was actually slowly evolving over time. Techno, on the other hand, implores us to create subjective variance in material that actually is objectively identical. As representatives of Minimal art, both techno and classic minimalism demonstrate that the more cold, distant and removed a music is, the more listeners are encouraged to activate their senses and make meaning out of it.

Perhaps this explains the difficulty that many encounter upon listening to minimalism or techno. Typically, musical artists transmit their subjective passion and emotion to the listeners, whose only job is to receive it. In an inversion of this practice, minimalism and techno encourage more work on the part of the listener: they must compensate for the lack of subjectivity in the music by providing it themselves. While this active engagement is a barrier for some, fans of minimalism and techno attest to its intensely pleasurable and even spiritual power. Ultimately, this subjective engagement of listeners of minimalism and techno is a unique redistribution of musical roles.

A New Participation

What is needed is a genuinely new Western high art dance with movements natural to the personality of someone living here and now, organized in a clear (i.e., universal) rhythmic structure, and satisfying the basic desire for regular rhythmic movement that has been and will continue to be the underlying basic impetus for all dance. – Steve Reich¹¹⁸

¹¹⁷ Butler, 11

¹¹⁸ Steve Reich, *Writings on Music, 1965-2000* (New York: Oxford University Press, 2002), 72.

The three central tenants of minimalism—repetition, process, and objectivity—each contribute to a redistribution of power among artist-listener relations. As an extreme manifestation of these core concepts, techno took this redistribution further than minimalism itself. While apart from Philip Glass (who has worked with electronic artist Aphex Twin on numerous occasions), none of the four central early minimalists have contributed to or interacted with techno first-hand, it would seem that their ideas of redistribution and collective community are closely allied to the sorts of philosophical themes we see in techno music. However, one key difference stands out. Techno music is largely a functional music, almost always performed for the purpose of dancing to, while minimalism still finds itself deeply rooted in the concert music tradition as a music to be listened to while sitting down. Some would decry the functionality of techno as a lessening of the music’s artistic value, continuing to hierarchically organize distinct differences in the ways different types of music operate. Yet, in my mind, the existence of functionality in a piece of music does not make it any less artistically valid than an absolute music to be appreciated for itself. Again, distinctions between “high” and “low” (or “serious” and “light”) fail to explain our current musical situation. While one may be functional and one may be absolute, both are valid musical objects worthy of study in the age of recording.

In the case of techno, functionality is a further manifestation of redistribution. As producer Matthew Dear notes, “I want people to be dancing while they’re trying to figure my music out.”¹¹⁹ While the academic tendency to distinguish functional music from “high art” implies that a functionality distracts from active listening, one does not

¹¹⁹Daniel Chamberlin. “Party Arty,” at <<http://www.miaminewtimes.com/music/party-arty-6346689>> (accessed 22 February 2016).

necessarily exclude the other. The music listener is invited to participate, interacting with the rhythm and texture that has become the focus of attention and using the music's functional use to heighten the listening experience rather than to distract from it.

Commonly, this participation is a communal activity. In another interesting inversion of artist-listener relations, the energy of the crowd dictates where the music will go next. Ben Neill writes of the "rave" sensibility in electronic dance music, wherein the artist's role is to channel the energy of the crowd rather than sit as the sole focus of attention. In this context, "The audience truly becomes the performance..."¹²⁰ Thus, the focus shifts from the artist transmitting the music to those receiving it, and even those with no musical training at all can find themselves at the center of attention at a musical performance. Within the space of the club, the music listener has the power to internally perceive, physically interpret, and socially dictate the direction of the music, a wholly unique type of musical experience.

Music listening in the context of the club is an active and physically creative endeavor within itself rather than the passive, yet internally intense, experience of the concert hall. Interestingly, Reich's call for a "genuinely new Western high art dance," quoted above, eerily anticipates the new relationship the music listener has with the music being performed. The ease with which techno music, or electronic dance music in general, makes people get up naturally and dance, points to its functionality and the way in which its unique participatory potential has an incredible artistic value within itself.

This creative agency of techno may remind us of the listener's heightened role in the age

¹²⁰ Ben Neill, "Breakthrough Beats: Rhythm and the Aesthetics of Contemporary Electronic Music," in *Audio Culture: Readings in Modern Music*, ed. Christoph Cox and Daniel Warner (New York: Continuum, 2004), 389.

of mechanical reproduction, although again, what was previously a private experience is now manifested in the space of the public. Sherburne writes:

Another reason for minimalism's spread within dance music is undoubtedly related to the relationship of sound to the body. Whatever repetition's psychological aspects, they are filtered through the body; as any dancer knows, repetition creates a unique sort of corporeal experience wherein the body becomes as if inhabited by the beat. The common practice within House and Techno parties of sustaining an almost unvarying tempo for the duration of the night has the effect—at least ideally—of uniting dancers through the beat, as if joining them into a kind of “desiring machine” ruled by a single pulse.

The success of much Western art music from the seventeenth through early twentieth centuries was often attributed to its harmonic narrative and the way in which the notes would lead towards the anticipation of a climax and withhold or, alternately, modulate in a completely unexpected direction. In other words, the history of Western art music corresponds with a history of surprising the listener through unexpected narrative twists, ensuring that no one could anticipate what was to come. In contrast, much of techno's new public participation is due to its very nature, the way in which repetition of pulse allows for a physical embodiment of the music itself while processes such as *symmetrical alternation* allow one to anticipate further changes in the music and its larger narrative arc. As discussed above, processes are often blended and manipulated for the purpose of challenging listeners' predictions analogously to the harmonic surprises of Western classical music. Yet, something inherent to rhythm and process allows for a greater embodiment on the part of many contemporary listeners. In techno, as with minimalism before it, rhythm and process replace harmony as the driving force of musical narrative, leading towards a greater public embodiment of musical materials.

One further formal element of techno that leads to a greater sense of participation is the common negation of any one clear climactic moment. As opposed to the single

goal-oriented climax that we often find in Western concert music, one finds in techno what Robert Fink labels *recombinant teleology*, “a series of fragmented tensionings and releases with (let’s be honest) periods of directionless ecstasy—or wool-gathering—in between.”¹²¹ While the shape of most Western art music is dictated by one large-scale climax that everything centers around, a recombinant teleological work is composed of multiple smaller-scale rises and falls. Thus, with no clear moments of teleological release, the climactic moments of the musical narrative are often left for the DJ or the listener to provide themselves.¹²²

In what is essentially a flattening of teleological progression, the listener now has the power not only to navigate through the textural layers of the music as they wish but to dictate the exact moment of climax. In Speedy J’s “Ping Pong,” for example, a groove evolves over the course of ten minutes with distinct elements added and removed throughout, keeping with the processes described above. Yet rather than one clear dictated climax, the track progresses as a sequence of smaller arcs and the listeners have much of the power to decide if any clear climactic moment exists [Example 20]. What would at one point have been the composer’s assertion of unique creative whim has become the duty of the listener or DJ to provide. This must not go overlooked. Taken in the context of Western music history, one could say that the entire meaning of a piece of music changes with this further redistribution of roles. The composer has lost all power to guide listeners on a sonic journey; instead, we have a blank canvas upon which listeners can paint their own journey, with its many miniscule ups and downs as well as its larger climaxes.

¹²¹ Fink, *Repeating Ourselves*, 45.

¹²² *Ibid.*, 46.

One final example of redistribution can be seen in the role of techno producers themselves. Apart from the experimental electroacoustic traditions stemming from Stockhausen and more in line with traditional conceptions of music composition, academic institutions are often removed from the electronic dance music landscape. As far as I know, a music conservatory giving lessons in the step-sequencer or Ableton Live is nowhere to be found. Thus, the techno musician is largely responsible for educating themselves and paving their own path. Just as the early minimalists toyed with using conventional Western instruments in unconventional ways and expanding the art music tradition to include electronically-enhanced acoustic instruments, techno made use of a new school of instrument entirely. One does not need any base level of experience with the Western classical tradition to make a name for themselves in the techno community. Thus, techno offers an alternate pathway for success in intellectually stimulating, instrumental music. Of his experiences with traditional music education growing up, Thomas Brinkmann noted,

I play (and paint) bad and I always have to find a way how to appropriate to such things as music or art. More “my story than his story” ... My Grandfather had a harmonium ... I played it as a kid. Everyone in the family could play it better than me. I just putted [*sic*] the arms on the keys and I opened as many knobs as possible. Then I stepped into the pedals like a berserk. Nobody was amused, but it was the only way to acquire this shit. I felt like a pilot and It [*sic*] was drone music from outer space. I was the age of 6 or 7 when I did it. Next to it I totally failed when my parents tried to teach me piano playing. Dyslexic in reading traditional scores. But nobody got it. So I got punished all the time, cause they thought my play is bad on purpose. I started to hate Mozart and all of his friends. And I felt in love with rhythm. My hometown was full of looms ... In some rooms they had 20 of them knitting differend [*sic*] patterns at the same time. This was the perfect rhythm & sound to me. And whatever I tried on drums, was nothing respect to what was goin [*sic*] on in such places. Same with trains. Some of the best concerts i listened, where in trains, stumbleing [*sic*] over the tracks of our suburbia¹²³

¹²³ Thomas Brinkmann. Interview by Author. E-Mail. Claremont, CA. February 24, 2016.

More than anything, the presumed disparity between Brinkmann's musical background and his success as a musical artist makes us aware of the idea that traditional music education can be counter-intuitive to certain forms of individual creativity. Feeling removed from this pathway, Brinkmann learned to manipulate instruments in a way that served his own creative whim, in the process creating his own wholly unique avant-garde strand of techno. The path of the self-educated techno artist would seem to connect directly to the undermining of academic power structures and redistribution of cultural capital sought for by the early minimalists. This is the ultimate manifestation of techno's new participation. Anyone with a creative vision can contribute to the expanding field of techno music, conventionally educated or not.

Conclusion: The Post-Modern Conductor & The Post-Modern Concert Hall

After the white cubes of art, black boxes of clubbing. – Thomas Brinkmann¹²⁴

In a series of essays, "Inside the White Cube," Brian O'Doherty discusses the sanctified, sacred nature of the conventional art gallery, noting, "Never was a space, designed to accommodate the prejudices and enhance the self-image of the upper middle classes, so efficiently codified."¹²⁵ The white cube that he speaks of could easily be swapped out for the concert hall so condemned by the early minimalists. As O'Doherty writes, the ideal gallery aims to prevent any types of outside cues from interacting with the artistic object, isolating it from everything that could lead one's mind away from the piece of art itself: "As modernism gets older, context becomes content. In a peculiar

¹²⁴ Ibid.

¹²⁵ Brian O'Doherty, *Inside the White Cube: The Ideology of the Gallery Space*, (San Francisco: The Lapis Press, 1976), 76.

reversal, the object introduced into the gallery ‘frames’ the gallery and its laws.’¹²⁶ Does this not ring true of the concert hall as well? When one hears a piece of music in the concert hall, it is completely isolated from the outside world, intended to be absorbed by a fully attentive audience governed by strict, codified rules of etiquette. The longer that the concert hall remains a musical institution in a world where music diversifies at a rapid rate, the more we begin to “frame” the concert hall itself, understanding that the institution is only promoting one type of musical experience of many. Yet, one large difference remains. O’Doherty notes that as the white wall becomes a participant in post-modern art, it essentially “became the locus of contending ideologies.”¹²⁷ The concert hall, on the other hand, does not seem to allow for contesting ideologies in the first place. The time it takes to complete one or two large-scale works does not often allow for the diversity of perspectives one could take in at the art gallery. The concert hall has fallen behind the post-modern world, unable to accommodate the vast diversity of musics created in the age of recording.

The club is today’s concert hall. Not only does it allow for the presentation of a diversity of works (one two-hour mix could likely contain anywhere from thirty to fifty tracks), it allows for these works to comment on each other. Derrick May, one of the early Detroit techno producers, viewed his DJ role as that of a conceptual musical curator: “We built a philosophy behind spinning records. We’d sit and think what the guy who made the record was thinking about, and find a record that would fit with it, so that the people on the dance floor would comprehend the concept.”¹²⁸ Within the DJ mix, works no longer have distinct beginnings, middles and ends. Rather, they are subsumed

¹²⁶ Ibid, 14, 15.

¹²⁷ Ibid, 29.

¹²⁸ Reynolds, *Generation Ecstasy*, 17.

into one much larger conceptual flow, allowing for dialogue and careful thought on the part of the selector. While the focus of this chapter has been on the art of techno, this concept applies just as well to any other musical styles which find their home in the club: dubstep, jungle, drum 'n' bass, hip-hop, dub, etc. The club is the definitive locus for the performance of music that is both functional and intellectual art.

DJs have become essential keys in the transmission of music from creation to reception. Ashby notes,

...we are now in the midst of a wholesale revision of musical literacy...Over the past half century, assimilation of a musical culture...has become less a matter of familiarity with its notation and more a matter of understanding its particular deployment and configuration of information...In short, musical literacy is becoming a matter of extending familiarity laterally rather than vertically, to varieties of musical style and expression rather than to finer and finer aspects of individual works.¹²⁹

With this concept in mind, who is more “musically literate” than the DJ? Well-versed in a variety of styles, able to make connections between seemingly disparate musical objects through the art of mixing and often acting as music producers themselves, DJs fill analogous roles to orchestral conductors in a world in which appreciation for the classical orchestra is disappearing at a troubling rate. Not only do DJs present music to an audience, they control that same audience, serving as a timekeeper and emotional guide in what has become a truly participatory art. DJs are techno’s conductors, guiding and curating the musical experiences of the audience in the “black box” of the club, the post-modern concert hall.

As I have demonstrated, the similarities between techno music and minimalism are many. The musical object itself is identical in its focus on the perceptual and the participatory. Process, objectivity, and repetition, the three core concepts of minimalism,

¹²⁹ Ashby, *Absolute Music, Mechanical Reproduction*, 171-2.

find a home in the world of techno. Further, the self-propulsive world of techno—removed from academic support systems, making use of unconventional spaces for art music performance and wholly embracing electronics as a musical instrument—seems to be a logical continuation of the larger trends of minimalism discussed in the first chapter of this thesis. Surely many techno producers are influenced by the early minimalists, as evidenced by the Orb’s sampling of Steve Reich’s “Electric Counterpoint” in their “Little Fluffy Clouds” [Example 21], or Orbital’s oft-cited use of phasing in “Time Becomes” [Example 22]. However, there are many other influences to be noted, from the harmonic stability of James Brown to the emphasis on rhythm and groove predominating throughout African-American popular music as a whole. The similarities we find among these disparate musics are indicative of larger cultural trends among humankind and, as such, should not be ignored or viewed as tangential to developments in academic art music. Rather than taking a reductive eye to repetition, scholars may want to explore it more widely, examining why it is that such a fundamental musical concept finds home in such a wide variety of musical styles.

Fifty years removed from its birth, minimalism is still a touchy subject. While it finally found a home within the academic world at the end of the twentieth century—embraced as a fundamental development in Western art music in the texts of Mertens, Strickland, and Potter—conceptually and aesthetically similar movements that find their home outside of the academic tradition remain neglected by music scholars.

Minimalism’s cultural value is undermined if we only pursue its continuations in the classical music community. The early minimalists strived to expand outwards from this community and thus, its most striking repercussions are likely found elsewhere. Techno

is but one instance of an alternate manifestation of Minimal art outside of the academic support system. We live in a world of Minimalism, itself composed of multiple minimalisms too pervasive to count.

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Appendix: Musical Examples

Audio examples can be accessed at <<http://tinyurl.com/zv2yq96>>

- Example 1 – The first “long tone” and “long silence” of La Monte Young’s *Trio for Strings*
- Example 2 – Terry Riley’s “Poppy Nogood and the Phantom Band” (from *A Rainbow in Curved Air*)
- Example 3 – Terry Riley’s *In C* (Terry Riley studio recording)
- Example 4 – Terry Riley’s *Music for the Gift*
- Example 5 – Steve Reich’s *Come Out* at the beginning and end of its process
- Example 6 – The “rhythm of the human breath” in Steve Reich’s *Music for 18 Musicians* (Steve Reich studio recording)
- Example 7 – Philip Glass’ *Music with Changing Parts* (performed by Icebreaker)
- Example 8 – Louis Andriessen’s *Worker Union* (performed by Bang on a Can)
- Example 9 – John Adams’ *Harmonielehre* (performed by San Francisco Symphony and Edo de Waart)
- Example 10 – Kraftwerk’s “Europa Endlos” (from *Trans Europa Express*)
- Example 11 – Tangerine Dream’s “Moments of a Visionary” (from *Phaedra*)
- Example 12 – Plastikman’s “Plasticine” (from *Sheet One*)
- Example 13 – Voices from the Lake’s “Meyku” (from *Voices from the Lake*)
- Example 14 – Thomas Brinkmann’s “0100” (from *Klick*)
- Example 15 – Cybersonik’s “Technarchy” (from *Blueprints for Modern Technology, Vol. 1*)
- Example 16 – Philip Glass’ *Two Pages* (Philip Glass studio recording)
- Example 17 – The additive process in Steve Reich’s *Music for 18 Musicians* (Steve Reich studio recording)
- Example 18 – Monolake’s “Plumbicon” (from *Polygon_Cities*)

Example 19 – Surgeon’s “Rotunda” (from *Basictonalvocabulary*)

Example 20 – Speedy J’s “Ping Pong” (from *G Spot*)

Example 21 – The Orb’s “Little Fluffy Clouds” (from *The Orb’s Adventures Beyond the Ultraworld*)

Example 22 – Orbital’s “Time Becomes” (from *Orbital 2*)