MUSIC AND ONTOLOGICAL INCOMPLETENESS: A SPECULATIVE APPROACH TO COMPOSITION

By

SEAN PEUQUET

A DISSERTATION PRESENTED TO THE GRADUATE SCHOOL
OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

2013

To La

ACKNOWLEDGMENTS

Finally, thanks go to all the Peuquets and all the Dawidziuks for their support and love. And most of all, thanks to my patient, loving, intelligent, and incisively critical wife, Laura, without whom this document would have never taken shape.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF OBJECTS

LIST OF TERMS

Esthesis
The active process of interpretation and the achievement (or, construction) of meaning given the objects of perception, cf. poiesis. In regards to Music, the term refers to achieving meaning in relation to the subjective representation of sound.

Facticity
A term taken from Quentin Meillassoux, which refers to the notion that subjective representations (i.e. the correlation between thought and being) may only be *described* as an apparent fact and cannot be *deduced* as the logical consequence of an absolute entity or principle.

Incidental sound
An instance of mere sound whereby the hearer presupposes a lack of intentionality; sounds that are assumed to be unintended and are not attended to.

Living sound
That which is listened to; the objectification of one's own intentional self-mediation between internal thought and external conditions, cf. mere sound; nota bene: the listener does not need to ascribe causality or meaning.

Mere sound
That which is heard and *de facto* understood to be of the world.

Music
The discourses of known transformations and constructions of vibrational sound that reflect the intention to cause living sound. The configuration of the Musical is (inter)subjectively maintained, historical, and the basis of convention.

music
A particular transformation or construction of vibrational sound that is (inter)subjectively maintained as being part of Music; an instance of convention.

Non-incidental sound
An instance of mere sound whereby the hearer presupposes intentionality; sounds that are assumed to be intended, but are nevertheless not attended to.

Poiesis
The generative process of (re)forming the world, cf. esthesis. In regards to Music, the term refers to acts of transformation or construction of vibrational sound.

Propositional music
A particular transformation or construction of vibrational sound that reflects an intention to extend the known configuration of Music, beyond the conventional.

Speculative music	A particular transformation or construction of vibrational sound that may or may not appear to the listener as living sound. The retroactive positing of a listener's presuppositions of mere sound when living sound appears.
Vibrational sound	The mechanical propagation of a pressure wave through a physical medium within the range of human audibility.

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December 2013

Across the twentieth century, music has become emancipated from any notion of
strict adherence to a prevailing style or narrative governing either its poietic conditions
or esthesic access. However, the plurality of musics may be identified as contemporary
music's overarching 'non-style'. Taking pluralism as the base-condition for any
compositional activity, the author asserts that the composer's ability to *know* the effect
of the music he writes becomes increasingly limited the more differentiated
compositional practice becomes. Such epistemological limitation is argued to reflect
post-Kantian philosophical prerogatives concerning the finitude of one's perspective.
Finitude is demonstrated to be the consequence of reflexivity, of being (either physically
and/or discursively) in the place one seeks to know. Quentin Meillassoux's term
correlationism is used to describe the various discourses that maintain finitude as a
fundamental limitation on knowledge; thinking and being cannot be addressed
independently, for each is only-ever correlated with the other as a consequence of
reflexivity.

Max Neuhaus' *Times Square* is considered as an example of an aural situation
wherein listener experience is not subject to the listener's limited knowledge or

perspective regarding the context of listening. Slavoj Žižek's notion of *parallax*, or the shift in epistemological perspective that reflects an ontological shift in the perceived object itself, inverts our understanding of situated listening, vis-à-vis *Times Square.* The epistemological limitation becomes an indication of an ontological incompleteness regarding reality itself. With recourse to Meillassouxian *absolute contingency*, material reality is maintained. However, by analyzing the minimal ontological difference between John Cage's *4'33"* and his propositional *Silent Prayer*, the necessarily contingent basis for our material encounter with vibrational sound requires a further consideration of *contingent necessity* regarding the quality of sound's appearance for us.

A model of composition is developed by first distinguishing between the totalizability of chance procedures and the un-totalizability of contingent outcomes. Subsequently, Robert Irwin's notion of site-conditioned artistic intervention is identified as an imperative regarding one's frame of access. Particular Irwin works are shown to model a 'speculative' art, an art through which one retroactively posits the presuppositions of art appearing at all, by not operating under the epistemological limitation, but rather, by being ontologically incomplete. Finally, the author's own work is presented as an engagement with these theoretical considerations. Convergent and divergent algorithmic processes are discussed as a means to modulate ontological appearances. A gallery exhibition featuring the artist's works, *Mildly Sympathetic Conversationalist* and *Given the Materials at Hand,* put these ideas into practice.

CHAPTER 1
COMPOSITION SPOILED FOR CHOICE

The Composer and Misinterpretation

Composing music entails an engagement in novel production and acknowledgement of the *a priori* conditions that support such production. These conditions appear as pre-compositional considerations (i.e. stylistic expectations, the performative context, the use of particular instruments or technologies, etc.). How the composer chooses to address (or ignore) the conditions are always subject to revision. During the process of composition, I operate as both composer and listener to the work-in-progress. In this dual capacity, my listening never comports directly with my intent, but I seek to minimize the difference. Concurrently, I realize that there is always-ever a gap between the music I think I write and the music as others listen to it. This poietic-esthesic divide, a well-known roadblock of composition, impedes the composer's ability to effectively convey musical meaning or substantial content.[1] This possibility of misinterpretation pushes me to think about how such misinterpretation could arise. In turn, to avoid misinterpretation, I attempt to restrict the range of possible 'interpretants' through the sonic and contextual signs present in a work. I try to address this threat of misinterpretation by seeking knowledge about the agreed upon meaning of signs, and thus, account for the conditions of esthesis through poiesis.

The Emergence of Pluralism

Composers have become so specialized in our various sub-disciplines that our attempts to develop compositional ideas and to make sense out of the music we write

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[1] see Jean-Jacques Nattiez, *Music and Discourse: Toward a Semiology of Music*, trans. Carolyn Abbate (Princeton: Princeton University Press, 1990).

requires not only a great deal of knowledge and education, but it also requires us to acquire such knowledge at an ever-increasing rate. In today's global, technologically-oriented society, it is nearly impossible to be a renaissance man, or polymath, as Edward Carr describes: "once you have reached the vanguard, you have to work harder to stay there, especially in the sciences."[2] The required level of specialist knowledge precludes other more generalist activities. Furthermore, such specialization is no longer a consideration of any one discipline relative to another, but operates internal to each given discipline as the number of specialists continues to increase. Carr describes the would-be polymath's intractable position in light of combined specialist knowledge further:

> It is not only the explosion of knowledge that puts polymaths at a disadvantage, but also the vast increase in the number of specialists and experts in every field. This is because the learning that creates would-be polymaths creates monomaths too and in overwhelming numbers. If you have a multitude who give their lives to a specialism, their combined knowledge will drown out even a gifted generalist. And while the polymath tries to take possession of a second expertise in some distant discipline, his or her first expertise is being colonised by someone else.[3]

With many people following the academic model of 'composer-as-specialist' espoused by Milton Babbitt several decades ago, the field of composition is increasingly full of specialists. Hence, it is increasingly rare to find a polymath musician, one who is exceedingly well-versed in a variety of sub-disciplines and provides cutting-edge advancements (either theoretical or technical) to each. Our individual cognitive capacities appear to be outstripped by the multiplicity of technological and epistemic advancements.

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[2] Edward Carr, "The Last Days of the Polymath," *Intelligent Life*, Autumn 2009, accessed September 2, 2013, http://moreintelligentlife.com/content/edward-carr/last-days-polymath.

[3] Ibid.

Natasha Barrett, in describing current trends within the sub-discipline of electroacoustic music, affirms how technological advancement is accelerating at a rate disproportionate to thought when she says:

> music technology changes dramatically in less than a decade while musical aesthetics require reflection and development benefiting from longer historical periods. Too often we hear new compositions from all environments where refinement and development in both technical approach and musical expression is stark—and would have benefited from a deeper insight into the repertoire.[4]

Barrett's statement is remarkable for two reasons: first, it aptly describes the critical and evaluative lag in relation to the simple deployment of new technological tools for compositional practice, and second, the statement itself becomes implicated in its content. The first point is clear, but the second one is more complicated. If we believe Barrett, we must then question how she has such an advanced aesthetic sensibility. How is it that she is able to identify how other composers lag behind the times, in both technical and expressive understanding? Thus, the trend she identifies is only a trend insofar as she is able to understand the 'whole' of the electroacoustic field in some objective capacity. There is something unsettling about her comments: on the one hand, she claims that a composer's knowledge about technological advancements and their aesthetic considerations is limited by a cognitive lag, it is *beyond* us. On the other hand, Barrett nevertheless holds herself in an exalted position of objective clarity. Her first sentence is 'transcendent' and her second is 'metaphysical'.

In defense of Barrett, we could argue that she is simply more experienced than younger, more naïve composers. Her experience gives her a larger wealth of

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[4] Natasha Barrett, "Trends in Electroacoustic Music," in *The Cambridge Companion to Electronic Music,* ed. Nick Collins and Julio d'Escriván, Cambridge Companions to Music. (Cambridge: Cambridge University Press, 2007), 232.

knowledge (the wisdom) to identify how technological advances must be considered in their use. If we take a more nuanced reading of her above statement, we might come to understand how she is speaking to the ease with which anyone can make (compose) electroacoustic music today. And given her experience, which provides her with a stronger grasp on the progression of technological advancement and the history of its musical use, she is knowledgeable in a way that is beyond the perspective of the amateur, the dilettante. Therefore, Barrett asserts from her knowledgeable perspective that many works "would have benefited from a deeper insight into the repertoire." This position seems not only reasonable, but almost unquestionably so. However, *that her claim asserts a position at all* underscores the fact that her knowledge is itself limited; Barrett's own knowledge and experience is derived from being within the field (of electroacoustic composition) she seeks to address. No one perspective, regardless of the breadth of experience, is absolute, simply because we acknowledge that the experience of others is different, that there are different positions. Consider this: after listening to a new piece from a naïve amateur composer that employs new technology, Barrett might interpret the piece as lacking refinement. However, it might actually be the case that Barrett is simply victim to the cognitive lag, and the amateur composer actually thought deeply about the piece and its use of technology. In fact, this new propositional music might gain credence precisely *because* it does not reaffirm conventions of thoughtful use maintained by experienced composers and listeners like Barrett and others. To be rhetorical: is this not precisely the misunderstanding that arises all the time between art music and vernacular music? When Stockhausen and Aphex Twin trade critiques, do both not miss the point of the other?[5]

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[5] see Karlheinz Stockhausen et al., "Stockhausen vs. the Technocrats," in *Audio Culture: Readings in*

As composers, I think it is incumbent upon us to identify the consequences of attempting to gain an objective view over the territory in which we find ourselves. As technologies continue to be developed and used in support of composition, we must realize that even the most experienced and lauded composers possess a limited knowledge about the means of composition and its range of possible aesthetic considerations; no matter who we are, knowing how our compositions will be heard and understood is as un-totalizable as the technological means of composition. Any attempt to assess the field of composition objectively, including reception of individual pieces, must proceed in full acknowledgement of *being in the field.* Only by acknowledging our given perspective, the horizon of our experience, may we begin to consider our agency in relation to the field and to reconsider the possibility of composing *new* music.

Currently, the composer can easily compose but cannot easily evaluate the composition as meaningful. This evaluation is difficult given the limitations of our knowledge concerning what any propositional music is in relation to the territory of Music, and more broadly, the territory of listening: the social, cultural, institutional, technological, and discursive contexts of reception. Such limitation appears to coincide with what I can only identify as the ascendance of compositional pluralism: our trenches get deeper and the walls between them grow higher.

Kyle Gann has described this pluralism well, particularly in his Rey M. Longyear Lecture from 2008.[6] In this lecture, Gann, who considers himself first and foremost a composer, identifies pluralism through a critique of musicology. Gann observes that

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Modern Music, eds. Christoph Cox and Daniel Warner (New York, NY: Continuum, 2006), 381.

[6] see Kyle Gann, "The Longyear Lecture," *American Music* 26, no. 2 (2008): 141. The Longyear Lecture is an endowed lecture series in musicology supported through the University of Kentucky.

musicologists largely abandoned 'Great Man' narratives of Western art music across the second half of the 20th century. Any notion of direct influence between successive composers and compositional styles that had carved out a singular trajectory of Western art music were deconstructed, and attention was turned to more marginalized musical discourses. "By turning toward gender studies, vernacular musics and oral and nonwestern traditions, and the history of audience reception—all those telling fields of evidence that traditional musicology had pointedly excluded—[musicologists] broke away from the stifling Great Man narrative and revitalized the field."[7] But, as Gann states further, art music composition has continued to progress. The musicological turn away from the narrative of Western classical composition does not mark the end of the American and European narrative of composed music. Rather, it appears commensurate with the emergence of multiple compositional styles and a diverse web of *narratives*. After the rise of minimalism in the late 60s and early seventies

> the word *pluralism* began creeping into the conversation. Minimalism grew more popular, but not everyone converted to it. Almost as a reaction against it, a noisy scene of free improvisation grew up around John Zorn and Elliot Sharp in New York City. Personal computers made it possible for any teenager to make music from samples of other recordings. Orchestra composers discovered New Romanticism and, exploiting the nonlinearity of style quotation, ventured into postmodernism. Serialism morphed into New Complexity around the cult figure of Brian Ferneyhough. DJs started making art music by spinning discs. Twenty years later, all of these styles are flourishing, with no one of them gaining particularly more of the market share than it had at the time. … At some point, everyone eventually looked back and realized that Leonard Meyer had been right. There *was* no dominant new style.[8]

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[7] Gann, "Longyear Lecture," 144-145.

[8] Ibid., 143-144.

Gann ultimately sees the contemporary hallmarks of pluralistic compositional practice as the arrival of Leonard Meyer's speculative, and ultimately prescient, prediction that the musical style of the future would be "'characterized not by the linear, cumulative development of a single fundamental style, but by the coexistence of a multiplicity of quite different styles in a fluctuating and dynamic steady-state.'"[9] In fact, Gann's description necessarily leaves out a host of other differences of compositional practice, some of which are even internal to the stylistic movements he cites. As composers, rather than musicologists, we should be interested not only in circumscribing this emergent dynamic steady-state, but also in asking ourselves: how does pluralism potentially influence composition, as each of us practice it?

Reactions to Pluralism

I posit that we can have two potential reactions to the phenomenon of pluralism, or the arrival of a dynamic steady-state of differentiated compositional practices. First, we can endorse its emergence (or at least our recognition of it) whole-heartedly in terms of its consumer-oriented benefits. A pluralistic compositional universe is one of possibility, choice, and freedom. In such a place, the range of audiences for a wide range of music continues to expand and make way for new stylistic differences, technological inventions, and socio-cultural correspondences. However, such an endorsement and acceptance of difference begs a very important question: are we accepting musics as they appear on the basis of understanding what the *actual differences* are, given a meta-perspective? Or, are we accepting *distinction* for

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[9] as quoted in Gann, "Longyear Lecture," 143.

distinction's sake as a form of cultural tolerance, because we have no way of knowing otherwise, of knowing the difference?

Culturally, I think we demonstrate a willingness to embrace the different stylistic branches of musical activity, which pluralistically appear to follow their own path, without much consideration given to how the branches differentiate, exist in relation to each other, and perhaps even hybridize. If we begin to consider such branching we may view pluralism according to a second, more radical, *relativist* perspective: all distinctions of musical style are of equal value precisely because we cannot know how or why that style appears the way it appears from a perspective outside of the socio-cultural context that values it. This idea underlies Jacques Attali's assertion that, "outside of a ritual context or a spectacle, the music object has no value in itself. It does not acquire one in the process that creates supply."[10] Music has no objective cross-cultural exchange value. So given the current stylistic differentiation of Western art music, how do the various (sub)cultures that value any one style comport, vis-à-vis each other? If we maintain that any new style is correlative with the potential emergence of a subculture or commodity market that values the style, then the absolute value of one style relative to another cannot be obtained. To value styles differently is akin to valuing the people who appreciate that style differently. Because we are unable to know, to understand, what a given music is outside of its cultural or subcultural context of reception we are prohibited from saying that one music is really 'better' or even 'more interesting' than another music. Objectivity is impossible because *understanding itself is impossible* from

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[10] Jacques Attali, Noise: The Political Economy of Music, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 2003), 106.

the outside, and therefore, any valued distinction regardless of its 'actual' difference should be embraced because we have no philosophical footing to say otherwise.

Ultimately, our two reactions or perspectives on music pluralism can be summarized in the following way: first, we should embrace the plurality of different musics as beneficial, as the extension of choice and freedom both for the composer to indulge in a multitude of styles and for listeners to benefit from more options; second, we must embrace pluralism not simply because we deem it beneficial, but because we have no way to know what any given music is outside of the context of listeners who value it and, therefore we cannot be anything but accepting of a listener's prerogative to listen differently. The first perspective marks a wholesale embrace of pluralism itself, its ability to support our exposure to, and attempted understanding of, otherness (music that is not our own and the context of listeners who value it). The second perspective maintains that we can do nothing but embrace pluralism, because of the *relativism* inherent to the appearance of any musical difference.

What happens when we try to provide an argument against pluralism? We have to proceed in one of two ways. First, we could take aim directly at pluralism as being beneficial: understanding (or attempting to understand) other people's music is not necessarily a good thing because of the possibility of misunderstanding. At best, misunderstanding complicates how a community of listeners values a given music, and at worst, misunderstanding may irrevocably damage that community's ability to maintain value. Misunderstanding can take the form of co-optation of the Other—musical de-territorialization in the form of Global Pop, cross-cultural stylistic borrowing in Western art composition, etc. However, this argument leaves us reconfirming the relativist

perspective. The relativist also disqualifies the possibility for any given understanding of another group's music to go wrong (or at least be problematic) because *any* outsider understanding is impossible. Thus, for the non-pluralist what is possible misunderstanding is for the relativist no understanding at all. Therefore, we must consider a second argument; in order to consider a rejection of pluralism, to assert that not all composition must proceed in full embrace of pluralism, *we must take aim at relativism*. Yet, the only way to attack relativism seems to require reasserting *a priori* and universal value differences—that one people's music is intrinsically *better* than another's. Such a claim is, of course, inherently dogmatic and would amount to a resurrection of the Great Man narrative. Even if such an assertion were inter-subjectively maintained (agreed upon) as a matter of consensus, the aggregation of individual perspectives in no way constitutes an absolute perspective. So even if everyone else agrees, the assertion that one music is in itself 'better' than another music, is at its core an assertion of some divine knowledge whereby some absolute entity (God) serves as the ultimate guarantor of Truth; such an assertion reactionary, untenable, and inherently conservative.

When we attempt to describe the contours of an emergent compositional pluralism, and our potential response in light of its identification, it seems that we can only embrace the proliferation of difference (our unmitigated tolerance) unless we find a way to undermine the relativist argument. Again, why would we want to do otherwise? It is my contention that there is a third way, one that might reframe our understanding of composition. If there is a way to identify pluralism's difference, a *non-pluralism*,

according to which our compositional practice is not externally limited by an inability to know the musical object (of otherness), we should at the very least consider it.

<center>**Non-Pluralism**</center>

It is important to clarify what we mean by asserting the possibility of a compositional practice that does not reify the current state of pluralism. To consider a music that functions as pluralism's difference, a non-pluralistic music, is not to consider music as a means of anti-pluralism.

Our pursuit in fact shares a basic presupposition with pluralism, namely that it is possible to understand how music is valued differently. It is important to clarify that we are not trying to find a new ground for contesting or challenging the musics of different cultures and subcultures, but rather, to challenge the idea that the credibility of music derives from intra-cultural knowledge alone. Our aim is to reconsider the limits of the 'stronger' relativist argument that cuts off our ability to know how others ascribe value to music. Therefore our consideration of non-pluralism is actually anti-relativism.

The compositional practice we will ultimately propose cannot simply be another compositional style. To develop and deploy a new style of music composition would, of course, contribute to the strength of Music's differentiation; it would draw a further distinction of practice, and thus, further extend the possibilities of known musical experience, and the possibilities of choice regarding one's investment in, interpretation of, and potential commitment to its difference.

Too Much Choice

But isn't further choice regarding the music we want to experience always a 'good' thing? This is the commonly accepted, intuitive view because culturally, politically, and economically, we (in the U.S.) equate choice with freedom or the removal

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of external limitation. But such common sense does not always comport with facts, particularly when subjective evaluations concerning both the products of such choice and the procedure of choosing are taken into account. Psychologist Barry Swartz, in his 2004 book *The Paradox of Choice: Why More is Less*, provides an opening anecdote about trying to buy 'regular' jeans at the Gap—an anecdote that may be familiar to us all and is worth considering within the sphere of music composition. Schwartz, being unsure about which jeans he truly wanted when confronted with the vast range of available options, set out to educate himself about their differences and select the best pair for him. In retrospect, he says, "the jeans I chose turned out just fine, but it occurred to me that day that buying a pair of pants should not be a daylong project."[11] Thus an abundance of choice itself (and not just technological acceleration, as identified by Natasha Barrett) can place increased demands on one's time and investment in pursuit of making a good decision. Furthermore, we should consider how fortuitous the outcome of Schwartz' purchase actually was. Regardless of how many pairs of jeans he tried on, or how much he liked the pair he selected at that time, there always remained a possibility that he wouldn't have liked them in the long-run. In fact, several empirical studies have shown that individuals often experience more regret concerning their particular choice as the number of options and opportunities for choosing (or reversing their choice, i.e. returns) increases.[12] Schwartz could have spent a lot of time trying to figure things out but ended up dissatisfied anyway. There's always a possibility that some other pair of jeans (not the pair chosen) might in hindsight have been a better

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[11] Barry Schwartz, *The Paradox of Choice: Why More is Less* (New York: HarperCollins, 2004), 2.

[12] See Rebecca J. Hafner et al., "Spoilt for Choice: The Role of Counterfactual Thinking in the Excess Choice and Reversibility Paradoxes," *Journal of Experimental Social Psychology* 48, no. 1 (2012): 28-29.

choice. Given the option to return the pair of jeans he chose, it is not hard for us to imagine that 'buyer's remorse' was just as likely of an outcome. To consider the relevance of such an anecdote in the context of music composition is to consider the effects of the proliferation of choice regarding a marketplace for music.

Composers as Productive Consumers

But composers are not consumers; rather, they provide assemblages of sound to spur listeners in thought or affective experience, correct? Specifically, composers operate in a strictly productive capacity; any "paradox of choice" faces the listener as a matter of music consumption. To maintain this position is akin to saying that composition is produced seemingly out of nothing; i.e. *ex nihilo.* However*,* composition *must take place*; the activity itself is situated both physically and discursively. So our view of composition *ex nihilo* overlooks how the composer is productive in her consumption of other's ideas, music, discourses, products, ideologies, etc. *ad infinitum.* We realize: the composer is productive as a consequence of her consumption; she is a *productive consumer.*

We should not overlook how the composer's *a priori* emplacement in society (or even in a society of composers) means that she may consume not only a range of existing music, but also, the techniques of composition through study and analysis of other composer's works. Like other listeners, she consumes the products of existing composition while also (unlike the mere listener) consuming the process of composition and the role of Composer in her attempt to learn how to compose. In what she chooses to consume she produces distinctions of use before she ever writes a note. Michel de Certeau, in *The Practice of Everyday Life*, provides us with a way to understand the hidden productivity of a composer's 'everyday' *consumption.* Across his text, de Certeau

aims to elucidate the seemingly transparent and direct relationship between production

and consumption by showing how consumption itself masks the underlying productivity

inherent to actualizing, if not inventing, the possibilities of future use. In addressing the

latent productive potential of an urban walk, de Certeau's point becomes clear:

> if it is true that a spatial order organizes an ensemble of possibilities (e.g., by a place in which one can move) and interdictions (e.g., by a wall that prevents one from going further), then the walker actualizes some of these possibilities. In that way, he makes them exist as well as emerge. But he also moves them about and he invents others, since the crossing, drifting away, or improvisation of walking privilege, transform or abandon [*sic*] spatial elements. Thus Charlie Chaplin multiplies the possibilities of his cane: he does other things with the same thing and he goes beyond the limits that the determinants of the object set on its utilization. In the same way, the walker transforms each spatial signifier into something else. And if on the one hand he actualizes only a few of the possibilities fixed by the constructed order (he goes only here and not there), on the other he increases the number of possibilities (for example, by creating shortcuts and detours) and prohibitions (for example, he forbids himself to take paths generally considered accessible or even obligatory). He thus makes a selection.[13]

From this perspective, the use of a pre-existing and subjectively evaluated territory of

affordance opens up the possibility for creative action. The composer's capacity to

make music does not arise *ex nihilo*, but rather, it emerges as a process of selection or

choice—her ability to actualize some possibilities over others. The walker does not walk

indiscriminately. He walks a particular path as the actualization of a latent potential

given the parameters of the physical site. Similarly, the composer does not compose

music haphazardly (even if, following Cage, the propositional music aims to be devoid

of intention). The composer composes through her use or abandonment of the ideas

that condition the territory of the musical. She marks a path in thought; she maps the

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[13] Michel de Certeau, *The Practice of Everyday Life*, trans. Steven Rendall (Berkeley: University of California Press, 1984), 98.

territory of compositional affordance through each attempt to compose, and her actions both actualize and invent some possibilities inherent to the task.

The composer's task is twofold: to make a propositional music that is both directed toward, but also predicated upon, the context in which the composer finds herself, the context of Music. To draw a more colloquial analogy, composing is similar to playing a game of catch with oneself. The activity of throwing a ball is only productive insofar as there is a target that establishes the condition of its being caught. Its being caught is similarly productive in so far as it outlines the possibilities and interdictions for a productive throw. The composer, therefore, is always throwing forth a propositional music and catching its context, in a cyclical manner.

To continue our analogy a bit further, we ask: who retains agency over the rules of the game, the playbook for a successful game of catch (a meaningful listening to a propositional music)? Does the composer or audience write the playbook? The simple answer is both. The composer pitches to herself, and as catcher, evaluates the efficacy of the pitch according to what she perceives the audience perceives an efficacious pitch to be. For the composer, the paradox of choice concerns the range of possibility for the target at which she aims. Her own listening and understanding of Music inform the range of possible targets. In her pursuit to not be misunderstood, she tries to inform her own listening, to productively consume the existing music and ideas of others, so that her evaluation of her own music hopefully comports with others' evaluations of her propositional music. Given the proliferation of choice, resulting from the diverse topology of the territory of Music, she cannot know all there is to know. She is not a polymath; she is a specialist. At best, she attempts to know all she can within the limits

of her perspective, her place within the territory. She seeks to make an informed choice

regarding the delimitations of her musical target knowing full well the possibility that a

different set of choices was not only possible, but probable given a different

perspective—given the multiplicity of perspectives that any audience would necessarily

reflect. There is never a *single* target. There are, rather, *many* targets. Therefore, an

excess of target choice makes the composer's task of *productive consumption* all the

more intractable.

We all produce the significance of that which we *choose* to consume, and have

no way of knowing whether such signification can be universally maintained. This gap in

knowledge is deepened when there is a proliferation, an excess, of choice. Music, from

both listener and composer perspectives, is a buyer's market. So, regarding the

composition of music, what is *not-just-another-choice?* Such a question should force us

to consider the implications of attempting to think what lies beyond choice, beyond the

logic of pluralism.

In returning to our question of what is pluralism's difference, we are in effect

asking what lies beyond Capitalism, beyond the logic of consumption and the

proliferation (liberation) of choice. Is a liberal consumerism (musical) society's ultimate

horizon? If we answer "no", then we align ourselves with Alain Badiou against the

various forms of what he terms 'democratic materialisms': democratic "because the

contemporary consensus, in recognizing the plurality of languages, presupposes their

juridicial equality,"[14] and materialism because "the individual as fashioned by the

contemporary world recognizes the objective existence of bodies alone… [and] who

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[14] Alain Badiou, *Logics of Worlds: Being and Event II,* trans. Alberto Toscano (London: Continuum, 2009),
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does not, *de facto* subscribe, in the pragmatism of desires and the obviousness of commerce, to the dogma of our finitude…?"[15] Here, Badiou is actually outlining the *relativist* perspective we encountered earlier: that the only substantial things the relativist maintains to be extant are (human) bodies, and that attempting to think anything else only reifies that we have languages with which to think. Accordingly, our bodily placement limits our knowledge of material existence, and our languages may only describe that which we cannot know.

Insofar as we identify the composer as an individual who endeavors to know the 'true' effect that she may cause (to know something beyond bodies and languages), we identify the forces of her limitation: the disjunction between technical and cognitive rates of (additive) change, the ascendance of specialization, and the excess of choice that proliferates the territory that presupposes her activity. These all serve to reify the plurality of both musical discourse and compositional practice.

So in addition to recognizing that our propositional music cannot simply be a new style, our second consideration regarding any attempt to think how compositional practice might reach beyond pluralism, is, in fact, a radicalization of our first consideration: our propositional music cannot pose any positive distinction in regards to the territory of contemporary compositional practice; it can't be additive in anyway whatsoever to the pre-existing knowledge base of Music or our *a priori* understanding of the Musical. Thus what we are proposing is a very odd thing. We are speculating on the conditions that might support the emergence of musical truth(s), the conditions by which the current state of Music is shown to be un-totalizable or *not amenable to all-*

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[15] Ibid., 1.

encompassing comprehension, without merely extending the diversity of known musical works.

Again, we may turn to Badiou for support and clarification regarding our founding gesture in regards to truth, that of subtraction:

> Nothing can be granted existence—by which I mean the existence that a truth presupposes at its origin—without undergoing the trial of its subtraction.
>
> It is not easy to subtract. Subtraction, that which draws under, is too often mixed with ex-traction, that which draws out of, that which mines and yields the coal of knowledge.
>
> Subtraction is plural. The allegation of lack, of its effect, of its causality, masks operations all of which are irreducible to one another.
>
> These operations are four in number: the undecidable, the indiscernible, the generic, and the unnameable.[16]

Thus truths, being the product of multiple operations of subtraction, are always the "plurality of their procedures."[17] And it is only within language situations that such a plurality becomes pronounced as Truth.[18] Therefore, following Badiou, to consider how the truths generated through musical experience extend beyond the conditions of pluralism is not to seek dogmatic, metaphysical Truth, but rather, to reconsider the possibilities for composition, both its poiesis and esthesis. If truths are to begin as a consequence of composition, then they must do so in a purely immanent way: in relation to direct aural experience, its *taking of place*. As Badiou further describes:

> In order for the process of a truth to begin, something must happen. As Mallarmé would put it, it is necessary that we be not in a predicament

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[16] Alain Badiou, *Theoretical Writings*, ed. and trans. Ray Brassier and Alberto Toscano (London: Continuum, 2004), 103.

[17] Ibid., 110.

[18] Ibid.

where nothing takes place but the place. For the place as such (or structure) gives us only repetition, along with the knowledge which is known or unknown within it, a knowledge that always remains in the finitude of its being.[19]

It is precisely the status of our *a priori* knowledge (of what is known or unknown) given the place of music's taking of place that defines the scope of this text, of music's possibility beyond the reification of an emergent pluralism. Place is the required condition for the making and receiving (access) of any and all music.

The territory of compositional practice is therefore the discursive 'site' in which our inquiry is 'situated', i.e. takes place. Music, being an aurally delimited subset of more general thought about Art, is an *evental* site: it is in-itself part of each instance within the set it describes.[20] This sounds abstract, but it loses any sense of ungrounded ephemerality once we consider Music as a pragmatic and situated socio-cultural phenomena. Take for example, the storming of the Bastille in 1789. The storming of the Bastille was part of the French Revolution, and the French Revolution was also part of the storming of the Bastille. Similarly, John Cage's *4'33"* is part of the discourse of music composition, and the discourse of music composition is also part of John Cage's *4'33".* Thus Music is a special kind of site; it is an *evental site*, which Badiou claims can only arise in consideration of Art, Science, Politics, or Love.[21]

To consider how the practice of composition may reach beyond the plurality of known musics without merely extending that plurality is to consider the possibility of an *event*; an event reconstitutes the territory from which it emerges. By proceeding across

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[19] Ibid., 111.

[20] Ibid., 100.

[21] Ibid., 110.

the quaternary framework of *the undecidable, the indiscernible, the generic, and the unnameable*, the event is what subtracts itself from Music, the known configuration of existing interventions into aural experience. To return to the notion of subtraction, the following serves to clarify our aim: to intervene into aural experience in a new way without reifying the plurality of Music, to subtract that which is new from Music. To consider a *non-pluralistic* intervention into aural experience is to literally consider *that which is not yet a part of Music*. In practice, something must happen as a matter of taking place that is not *a priori* Musical—that is not part of the known configuration of Music.

It is important to note the following distinction: our definition of Music does not require any particular music (instance) to actually exist in any substantial way. Music, neither the configuration of known instances nor any particular instance, is granted existence; as John Cage would say, music is just a word. However, insofar as that word refers to an idea, the notion of some qualitative aural affect, we cannot say that *there is no such thing as Music.* The notion is operative even if it does not actually exist in any substantial way, even if Music is purely ideational. Accordingly, it will be our task across the whole of this text to circumscribe the structure of that which subtracts itself from that which does not exist (Music). Insofar as it concerns the activity of composition: we aim to uncover what is *real* about aural experience and our ability to transform it's taking of place—the place in which Music, its very possibility, becomes operative in conjunction with experience.

Project Outline

In the Chapters that follow I pursue a compositional practice regarding both the work and the conditions of its esthesic access (site) in the following way: first, I outline in

35

both theory and practice the consequences of our inability to gain a 'total' or 'whole'

perspective over the field of composition, the field in which my compositions and

compositional behavior is necessarily situated. This discussion takes place across

chapter two and culminates in a concise derivation of the 'epistemological limitation' that

reinforces particular practices and discourses within the field of composition.

In Chapter 3, I seek recourse through an example of an existing 'music' that

charts a different path, one that is not subject to the epistemological limits described in

the previous chapter. I first consider confusions that have arisen in light of my own work,

Windows Left Open, and I then clarify such confusions as they are presented through a

'speculative' phenomenological analysis of Max Neuhaus' *Times Square.* Neuhaus'

work is shown to provide an example of 'musical' non-transcendence, and therefore

suggests a music that is not driven by epistemological considerations.

In Chapter 4, I develop a theory of music that, following the example of Neuhaus,

posits how music may arise beyond the limits of knowing the musical. With the aid of

philosophical texts, primarily the work of Quentin Meillassoux, Alain Badiou, and Slavoj

Žižek, I construct a theory of ontologically incomplete music that aims to resuscitate

notions of Absolute Truth from a Hegelian 'speculative' perspective. The truths

supported by the theory of music I develop carry a very different notion of absolutism

than the metaphysical Truth espoused by conservative, dogmatic classicism; it is a

theory of music that is neither wholly transcendental (truth is beyond us) nor

metaphysical (truth is endowed by God).

In Chapter 5, I provide a model of compositional practice that begins with the

distinction between chance and contingency. The un-totalizability of contingent

outcomes is contrasted with the totalizability of chance procedures, as they arise in both Music and Art. I then present the work of Robert Irwin as a model for a speculative artistic practice. Irwin's 'conditional' art is shown to address its materials in determinate ways while nevertheless holding the frame of access in relation to such materials to be wholly indeterminate. Often, Irwin's work is itself incomplete in *being* art at all; it is ontologically incomplete.

In Chapter 6, I present my own artistic and compositional work in light of the prerogatives laid out across the entirety of this text. My particular solution to the problem posed by a 'speculative' art is shown to involve the computational convergence and divergence of value-sets governing the construction and transformation of sonic materials. The convergence (and divergence) of material results in an ever vacillating, though always incomplete, notion of what the work is, particularly when considered in relation to the context of its presentation. Our presuppositions concerning the context of presentation are leveraged against the changing nature of the work itself. Two original works are discussed in relation to the theoretical and practical considerations of this text. The two works, *Mildly Sympathetic Guitar* and *Given the Materials at Hand* were presented as part of a group exhibition titled *Convergence*, which ran from September 13, 2013 to October 19, 2013 at Stetson University's Hand Art Center.

CHAPTER 2
THE EPISTEMOLOGICAL LIMITATION

Music and Thought

Kyle Gann's identification of a stylistic steady-state or musical pluralism,

discussed in the last chapter, is not necessarily unique to the field of Music or even

artistic production more generally. Music is simply a discursive domain wherein that

which conditions plurality becomes manifest. In this regard, the proliferation of choice

regarding one's (productive) consumption of music, or any particular construction of

vibrational sound that is agreed upon in its relation to Music, may be seen as a subset

of larger socio-cultural phenomena. Once we identify pluralism and pose the question

concerning what its possible difference may be, we are thus asking a question that is

relevant to Music insofar as it is relevant to society at large.

Therefore, if we are to consider music in relation to pluralism, a relation that pre-

conditions our knowledge of what is *new* about new music, we must interrogate thought

itself, not just thought about Music. Does pluralism serve to limit our thinking about

music or is it purely emancipatory? We cannot adequately address this question from

within the confines of Musical (established or agreed upon) discourses. To do so would

only reify the plurality of musics by providing a further distinction of *a priori* Musical

thought. To think pluralism's difference, of what (if anything) is not encompassed by or

subject to the logic of pluralism, is already to think beyond Music. We must be

theoretical without confining ourselves to theories of Music if we are ever to uncover

how the Musical itself may be reconfigured.

Ultimately, it is my belief that we would be remiss to continue composing

according to the styles and techniques we've learned from our teachers and other

historical models without at least attempting to think our way through that which

preconditions composition. This strikes me as an imperative regardless of the historical

circumstances. Given our particular contemporary moment, pluralism just appears to be

the issue at hand.

Pluralism and Postmodernism

A brief discussion about aesthetics may serve as a bridge between music and a

theoretical analysis of that which preconditions or presupposes music. Postmodernism

is one name for the set of contemporary (socio-)linguistic and bodily considerations that

Badiou circumscribes and calls 'democratic materialisms'.[1] Postmodernism(s) may be

defined in many ways, ways that change according to the discipline or perspective from

which one seeks to address postmodernism's discursive reality. For example, Theirry

de Duve has proposed a framework for considering the difference between modernist

and postmodernist sculpture and installation practices as a matter of linkage and

sacrifice regarding notions of 'place', 'space' and 'scale'.[2] Following de Duve, modernist

imperatives appear as sacrificing place and linking space and scale, while

postmodernist imperatives appear as sacrificing space and linking place and scale.

Thus, for the postmodernist, place takes priority over space; the consumer's bodily

placement and choices take priority over the territory and dimensions of the object being

consumed.

From a Musical perspective, postmodernism appears retroactively as those ideas

that (across the twentieth and now twenty-first century) subtract themselves from the

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[1] Alain Badiou, *Logics of Worlds: Being and Event II*, trans. by Alberto Toscano (London: Continuum, 2009), 2.

[2] Thierry de Duve, "Ex Situ", *Art and Design*, Installation Art, no. 30 (1993).

modernist imperatives of universality and materiality. In this sense postmodernism, like

many discursive, terminological distinctions is applied as a positive designation

circumscribing the territory of modernism's negative space. As T.J. Clark states in

Farwell to an Idea:

> Modernism had two great wishes. It wanted its audience to be led towards
> a recognition of the social reality of the sign (away from the comforts of
> narrative and illusionism, was the claim); but equally it dreamed of turning
> the sign back to a bedrock of World/Nature/Sensation/Subjectivity which
> the to and fro of capitalism had all but destroyed. … Modernism lacked the
> basis, social and epistemological, on which its two great wishes might be
> reconciled. The counterfeit nature of its dream of freedom is written into
> the dream's realization.[3]

It is the irreconcilability or incompleteness of modernist ideals that paves the way for our

embrace of its difference, the emancipation of difference itself.

The Modernist Event

What Badiou has termed the Schoenberg-event,[4] is most widely considered to be

musical modernism's founding gesture. The *event* that Badiou (and most everyone else)

identifies in relation to Schoenberg is not a reference to his entire oeuvre, but rather,

refers to the change found across his oeuvre, namely the advent of serialism or the

twelve-tone technique. Serialism stands in contrast to any representation of the world

outside of the means of serial music's construction. "The serial organization refers the

notes back to their serial organization alone, to their reciprocal relations in a

determinate sonic space. As Schoenberg puts it, the musician works with 'twelve notes

that only relate to one another.'"[5] Serialism's ability to mathematically ensure the

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[3] T.J. Clark, *Farwell to an Idea: Episodes from a History of Modernism* (New Haven: Yale University Press, 1999), 9-10.

[4] Badiou, *Logics of Worlds*, 80.

[5] Ibid.

egalitarian treatment of all twelve equal-tempered pitch classes invested music with an air of veracity regarding its construction.

A relation between elements, Musical or otherwise, can be described mathematically. For the modernist, math functions as a secular guarantor of truth. And the potentially differentiated appearance of modernist music is grounded in the mathematical verifiability of its procedures. Yet, in trying to elevate mathematical truth to the level of aesthetic universals, TJ Clark is right, modernism never fully realizes a reconciliation of its prerogatives: to ground the sign in reality and to universalize its meaningful appearance. Why is this so?

Even if a composer, following in the footsteps of Schoenberg, employs a determinate, mathematical system governing the relation between materials (sounds), there is nothing to say that the listener *knows* the system, or can reverse engineer it based on its musical appearance. There is a semiotic gap, one that remains despite the mathematical formalization of artistic procedures. The modernist sign, existing in a discursive space remains subject to interpretation. In modernist art, the hermeneutics of appearance are no doubt different from the actual, often mathematical, techniques of production ostensibly grounded in material reality. A modernist artist or composer may point to the verifiability of mathematics to instill credence in a given work's construction, but knowledge of a work's construction does not ensure that the work appears in the same way for all; regardless of its verifiable construction, we cannot maintain the universal appearance of any work, let alone a universal meaning. This is not to say that modernist artists and composers all thought that their art was universal. Rather, formalized procedures of artistic construction simply beg the question: to what degree

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will the varieties of appearance and meaning that arise in consideration of the work be restricted (be known in any particular way) given the work's construction? Though we may assert that a modernist art is *universally* knowable in the reality of its poietic principles and procedures, we must concede that how the work appears or is thought to carry meaning is only knowable through the *singular* perspective conditioning an individual's esthesic access. In Lacanian terms, the difference between our ostensibly verifiable knowledge of poiesis and the work's unverifiable esthesic appearance is modernism's gap between *reality* and the *Real* (that which is lost in our symbolic representation of reality). As Badiou has repeatedly remarked, modernism retains the possibility for a Master, the One who claims superior knowledge over the reality of the sign.[6] The high/low dichotomies and value judgments that emerge in consideration of *art music* versus *vernacular music* (in Adorno's writing, for example) are a testament to the Master's superior knowledge.

Can we ever have absolute knowledge of the reality of the sign? Post-Kantian transcendental philosophy answers with a defiant, "No." For any claim to absolute knowledge recalls Hegel's dialectical method, with its idealist assertions of absolute reconciliation of oppositions. Slavoj Žižek, most notably, contests this 'caricature' of Hegel. Žižek maintains that Hegel's absolute arises from *within* the dialectical process, in the self-annihilation of the opposition and is, therefore, an absolute that is immanent to the conditions of the dialectic—not transcendent or *beyond* it.[7] We will discuss the implications of this perspective further across Chapters 3 and 4. However, before doing

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[6] see Alain Badiou, *Handbook of Inaesthetics*, trans. Alberto Toscano (Stanford: Stanford University Press, 2005).

[7] see Slavoj Žižek, *Less Than Nothing: Hegel and the Shadow of Dialectical Materialism* (London: Verso, 2012).

so, it is critical to understand the logic that supports the wholesale rejection of any absolute. Postmodernism is the aesthetic circumscription of such logic and, therefore, provides us with a window into it.

The Postmodernist Event

Having identified the Schoenberg-event, we may attempt to identify the 'evental' appearance of a postmodern music, a music that presents nothing but the fractured appearance of the 'universal'. As Fredric Jameson defines in the opening line of *Postmodernism, or, The Cultural Logic of Late Capitalism*, "It is safest to grasp the concept of the postmodern as an attempt to think the present historically in an age that has forgotten how to think historically in the first place."[8] Modernism's defiant quest for *new* forms of a universally operative aesthetics severed us from the past. And thus, postmodernism emerges as a discursive reclamation project, marking the appearance of historical variation itself, an aesthetics of fragmented historical perspectives. As de Duve observes in consideration of late twentieth-century sculpture, we find "an attempt to reconstruct the notion of site from the standpoint of having acknowledged its disappearance. So, in that sense, the site of all *in situ* art is a 'non-site', as Robert Smithson once perceptively remarked."[9] In music, we may therefore consider the appearance of postmodernism as the re-contextualization of the historically musical.

Igor Stravinsky's neo-classical turn provides an early index for considering the postmodern-event. In consideration of Stravinsky's neo-classicism, we see how musical consumption itself is integral to that which is produced. When we consider the vast

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[8] Fredric Jameson, *Postmodernism, Or the Cultural Logic of Late Capitalism* (Durham, NC: Duke University Press, 1991), ix.

[9] de Duve, "Ex Situ", 25.

range of historical musics that one may choose as a condition for compositional activity, what knowledge do we have to inform such a choice? This question articulates the postmodern composer's task: to choose in full acknowledgement of the fact that any choice is made under the condition of insufficient knowledge concerning the range of possible choices and their possible interpretations. In thoroughly rejecting the notion of absolute mastery, or knowledge of a universal aesthetics, postmodernism places the composer securely within a particular frame of reference inside the territory that preconditions any compositional activity. The postmodern composer is cut off from an objective view of the Musical, from knowing how her work will be heard; she is required to acknowledge her position of limited knowledge (perspective) on the territory her work aims to affect.

Sociological markers of postmodernism: Kyle Gann sought to describe sociological markers within the field of composition that reflect postmodern prerogatives as they appear in relation to the falling prestige (what we've been calling mastery) associated with being a (Classical, Romantic, or Modern) composer:

> After the bad old days in which composers used to impress their
> audiences with technical expertise and quasi-scientific musical mandates,
> we seem to be on a huge swingback, more modestly just trying to
> convince the audience that we're nice, down-to-earth guys. …The prestige
> of the modern composer has fallen so far that I think the reflexive self-
> effacement is a true reflection of the perception that society doesn't take
> composers seriously anymore. Still recoiling from the days in which we
> were all trying to be the next Stockhausen, now we're all trying to convince
> the audience we're just like them, except we write music. In front of an
> audience of complete amateurs this has one effect, but seems a bit
> different in front of the musically sophisticated…. Despite the thousands of
> hours we put into honing our compositional philosophies, we're afraid to
> be leaders, or to pretend to be experts.[10]

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[10] Kyle Gann, "What Composers Talk About," Arts Journal Blogs: Post Classic, accessed April 21, 2009, http://www.artsjournal.com/postclassic/2009/04/what_composers_talk_about.html.

Gann is incredibly perceptive here in his description, yet he misses a crucial insight: the

presentation of oneself as part of a pluralist patchwork is today the very mechanism that

establishes the composer's relevance within any one branch of musical sophistication.

As David Clarke puts it:

> it's not just that our CD collections might include Maxwell Davies
> alongside Miles Davis, The Doors, and Dunstable (they probably always
> did, with or without modernist alphabetizing tendencies); it's that we can
> now flaunt it. No guilt need attach to any nook or cranny of our musical
> preferences, since these days all music is in one way or another valid; just
> name your criteria.[11]

 The composer, as a music consumer, flaunts eclecticism in support of her 'everyman'

status. It is not, as Gann says, that the composer is "afraid" to lead, or "to pretend" to be

an expert, but rather it is the presentation of a restrained (if not fearful) expertise, its

very appearance, that enables the composer to retain legitimacy. That "society doesn't

take composers seriously anymore" belies the fact that any one composer, herself being

a part of society, doesn't know how to take composers (herself included) seriously

anymore. In response to her own identification of always-already being a part of a

society that is critical of her practice, the composer is *self*-critical of any aesthetic

disagreement; because she cannot know, in any absolute way, the reality of her own

perspective over another's perspective; she cannot but concede each perspective's

"juridicial equality"[12] given the plurality of perspectives brought to bear on the

appearance of the musical.

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[11] David Clarke, "Elvis to Darmstadt, or: Twentieth Century Music and the Politics of Cultural Pluralism," *Twentieth Century Music* 4, no. 1 (2007): 4.

[12] made in reference to Badiou's notion of 'democratic materialism', which he defines in the preface of *Logics of Worlds* as being democratic "because the contemporary consensus, in recognizing the plurality of languages, presupposes their juridicial equality." see Badiou, *Logics of Worlds,* 1.

To recapitulate, the postmodern composer chooses her own particular engagement within the field of composition; she determines the affordances (possibilities and interdictions) for a new music by evaluating the musical as such, as she knows it. The postmodern composer is acutely aware that her own knowledge of composition is not absolute. Rather, her knowledge reflects her own perspective and experiences in relation to that which has appeared musical. To avoid ignorance, the composer presents herself as *genuinely* ironic towards composition; she acts *as if* she does *not* believe in the 'Great Man' narrative of Composers, while nevertheless composing in the hope that her propositional music will affect Music (again, capitalization denoting the field at large in its contemporary moment and its various historical trajectories).

Three Derivations of the Epistemological Limitation

Derivation One: A Matter of Consumption and Production

The above sociological observations about contemporary composers appear to reflect, following Žižek, "an exact inversion of Marx's formula [for the German *ancien régime* that 'only imagines that it still believes in itself']: today, we only imagine that we do *not* 'really believe' in our ideology—in spite of this imagined distance, we continue to practice it."[13] The *not*-Composer still composes, but only in such a way as to accentuate her everyman status—to leverage a degree of false modesty against her nevertheless operative ideology of becoming a Great Composer.

Žižek (by way of Maynard Keynes) provides us with a precise articulation of how contemporary compositional activity engenders self-relating. If we consider how the

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[13] Slavoj Žižek, *First as Tragedy, Then as Farce* (London: Verso, 2009), 3.

production of music (composition) is conditioned by our consumption of the territory we

seek to affect, we may draw a direct analogy with free-market enterprise, whereby:

> expectations are part of the game: how the market [for music] will react
> depends not only on how much people trust this or that intervention, but
> even more so on how much they think *others* will trust them—one cannot
> take into account the effects of one's own choices. Long ago, John
> Maynard Keynes rendered this self-referentiality nicely when he compared
> the stock market to a silly competition in which the participants have to
> pick several pretty girls from a hundred photographs, the winner being the
> one who chooses girls closest to the average opinion: "It is not the case of
> choosing those which, to the best of one's judgment, are really the
> prettiest, nor even those which average opinion genuinely thinks the
> prettiest. We have reached the third degree where we devote our
> intelligence to anticipating what average opinion expects the average
> opinion to be." (1)So, we are forced to choose without having at our
> disposal the knowledge that would enable a qualified choice, or as John
> Gray put it: *"We are forced to live as if we were free."* (2)[14]

If we consider the economics of musical consensus-making as homologous to Keynes'

depiction of the stock market, this "third degree" echoes the very conditions of

groundless self-relating which arise between the composer and her own investment in

composition as a means of achieving a successful (useful) intervention within the field;

her investment is founded upon not the 'real' territory of composition, but rather, the

composer's map of others' maps of composed music, as it all imminently appears to

her. Here, we incur Baudrillard's notion of the *precession of simulacra* or "the generation

of models of a real without origin or reality: a hyperreal [, whereby] the territory no

longer precedes the map, nor survives it."[15] When we reflect upon the reality of the

compositional procedure, it becomes impossible to even think in terms of absolutes

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[14] Žižek, *First as Tragedy, Then as Farce,* 10. The referenced footnote (1) reads: "John Maynard Keynes, *The General Theory of Employment, Interest and Money,* New York: Management Laboratory Press 2009, Chapter 12." The referenced footnote (2) reads: "John Gray, *Straw Dogs*, New York: Farrar Straus and Giroux 2007, p.110."

[15] Jean Baudrillard, "Simulacra and Simulations," in *Jean Baudrillard: Selected Writings*, ed. Mark Poster (Stanford: Stanford University Press, 1988), 166.

anymore. We are instead faced with a multitude of differentiated appearances and interrelations that precede any definition of what composition actually *is*; we are staring at nothing more than a "desert of the Real"––a void.

What is of utmost significance in Žižek's use of Keynes is how this third degree, the extension of relations into a 'hyperreal' or a virtual space divorced from objective determination, is presented as an 'epistemological limitation' or horizon. We are "forced to choose *without* having at our disposal *the knowledge* that would enable a qualified choice." Or, to put it in compositional terminology: we are forced to pursue a particular compositional prerogative (style or method) without having the knowledge to determine what makes such a choice objectively verifiable as a 'good' choice; we can merely "anticipate what average opinion expects average opinion to be." The horizon for composition is thus to compose in an attempt to maximize the comportment between one's own listening and the intersubjective norms that condition one's own listening.

If modernism's failure is an inability to universalize esthesic access regarding the formalized procedures of poiesis, then postmodernism appears as a full embrace of the impossibility of ever doing so, of the discursive reality of the map without recourse to any territory (ground). The impossibility of universalizing the sign is due to our inability to gain absolute knowledge concerning the 'reality' of its access. What any given composition is is conditioned by what the composer thinks others will think the work to be; the inability of the composer to take all perspectives into consideration, to *know* the totality of music's possible appearance, is an epistemological limitation, a limitation on knowing the 'real' effect of any given compositional choice. The composer cannot herself be the model for the listener (consumer) she imagines composing for.

Derivation Two: Music Semiotics

As we've been hinting at across this chapter, music semiotics itself presents a way of understanding the limitation on a composer's ability to *know* the reality of the effect she may cause.

The history of music, as well as my own personal compositional history, is littered with attempts to represent, model, imitate, and even allegorize a distinct subject that exists independent of sound. From early liturgical music up to contemporary pieces exploring data sonification and cellular automata, there is a demonstrated compositional preoccupation with representing the extra-musical. For centuries, composers have sought to instill musical narrative and program into their works and they have given great care and attention to the development of techniques for codifying the detail, nuance, and precision found within the extra-musical subject. Yet, as interesting and sublime as the result of these efforts may be, there is a disjunction between intention (on the part of the composer) and interpretation (on the part of the listener).

Consider the example of Beethoven's "Pastoral" Symphony and its fabled program of representing the 'countryside'. Attending to the piece, we begin to listen into that program with our own intentionality, in effect trying to reverse engineer the process by which the musical elements came to so clearly signify all that is rural, natural, and of such a landscape. In fact, "referring to conversations that he allegedly had with Beethoven himself, [Anton] Schindler claims that Beethoven intended to affix programmatic titles to all of his compositions – after the fashion of the Pastoral Symphony – in order to make his intentions explicit."[16] This point belies a pre-

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[16] F. E. Kirby, "Beethoven's Pastoral Symphony as a 'Sinfonia caracteristica," *The Musical Quarterly* 56, no. 4 (1970): 60.

suppositional acknowledgement that music is by definition more varied than text in its meaning, and thus amenable to (if not requiring of) explication. The necessity with which such (textual) explication in fact precedes the direct experience of music underscores (rather than resolves) the question of whether music alone can be explicit in its conveyance of meaning to listeners. Does the sound of the 6th Symphony itself somehow carry its own intention divorced from any a priori knowledge of Beethoven's 'pastoral' program? Is extra-musical intention encoded in the sound? And further, as listeners, what do we decode and how are we able to decode anything extra-musical from the sound? Such are the questions immediately raised through an engagement with extra-musical representation.

As the Beethoven example illustrates, the necessity with which the ambiguous notion of 'countryside' (as a place of normalized experience) appears in the 6th Symphony forces us listeners to confront how meaning is conveyed through music. To do so brings us into the territory of music semiotics. As Tia DeNora (1986) points out, in approaching the question of *what* and *how* music means, we stumble upon the, "tension between the apparent validity (at the level of listening) and the apparent invalidity (at the level of empirical analysis) of music's symbolic capacity."[17] We all attest to music's ability to make us *feel* something, but the sketchiness with which we are able to localize this feeling or in fact define the structure(s) through which it operates suggest that music may very well be, as Patricia Tunstall asserts, rearticulating Saussure: "not a system of signs but a system of signifiers without signifieds."[18] This untenability to pinpoint that

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[17] Tia DeNora, "How is Extra-Musical Meaning Possible?: Music as a Place and Space for 'Work'," *Sociological Theory* 4, no. 1 (1986): 84.

[18] Patricia Turnstall, "Structuralism and Musicology: An Overview," *Current Musicology* 27 (1979), 54.

which music signifies highlights what DeNora refers to as, "the paradoxical aspect of musical meaning, namely that music may be perceived as expressive, yet simultaneously elude analytical attempts to pin it to semantic corollaries."[19] We assume that what we identify as expressive is specific. However, when given greater consideration, that which is expressive is revealed to lack specificity.

In trying to come to terms with the various ways that semiologists have tried to bridge this fundamental divide between what Nattiez terms poiesis (compositional intent) and esthesis (listener interpretation),[20] DeNora makes the argument that our confusion and angst regarding the complexity of musical meaning stems from the misinformed assumption that the linguistic premise of an "ideal speech situation" serves as an appropriate model for understanding music as a system of signs. In an ideal speech situation, "what is said is equal to what is meant is equal to what is understood."[21] Yet, such a speech situation is truly ideal, as it is not reflective of any real world linguistic exchange, let alone the conveyance of musical intention. Quine's Indeterminacy of Translation, Gricean Maxims, and the notion of Common Ground in psycholinguistics all serve to confirm the premise that such an ideal speech situation is impossible. Language users select words and comprehend their significance according to a multiplicity of meaning and a reliance on context. For example: saying "it's hot in here," may in fact be understood as a hint that someone open a window.[22] In terms of

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[19] DeNora, "Extra-Musical Meaning, 87.

[20] See Jean-Jacques Nattiez, *Music and Discourse: Toward a Semiology of Music*, trans. Carolyn Abbate (Princeton: Princeton University Press, 1990).

[21] DeNora, "Extra-Musical Meaning," 88.

[22] Ibid.

semiotics, it is therefore necessary to reassess the referentiality of language as an ideal model for music.

Here, we begin to see that the work of conveying meaning does not rest solely on the shoulders of the speaker/composer. The listener actively constructs meaning out of the signs with which they are confronted. Meaning is in this way achieved rather than received.[23] Nattiez's tripartite model of musical semiotics is in fact grounded on this premise, whereby the composer and listener merely share access to the neutral level of the work's existence in reality, the infinitely receding point of tangency between the two perspectives. In this sense, it appears more logical to invert the linguistic analogy, to treat language as a refined systemization of music semiotics (on the basis of sonic formed-ness) rather than view music as being reflective of an idealized, linguistic referentiality.

Yet, as attractive as Nattiez's model may appear in light of the interpretive nature of language, he seems to under-appreciate our bias towards meaning. As a particular context, social environment, or perceptually-driven situation prescribes, we seek out meaning. I am struck by the example of a particular viral video on YouTube in 2010, where a hiker, upon seeing a "double rainbow," rapturously, almost as if proselytizing, screams, "what does it mean!?" DeNora describes this motivation to find meaning in terms of the objects of our perception, stating that we "come to construct an aura of naturalness about the object, utterance, act, 'as if' the properties perceived in that object are actually and intrinsically of it."[24] Not only are we the makers of meaning, but we

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[23] Ibid., 90.

[24] Ibid.

conflate meaning with the object from which it is derived. We think the meaning is in the object itself, inherent to its constitution; we misattribute meaning to be in the object and overlook how meaning is the product of our expectations. Therefore, our endeavors to identify in the object (at the neutral level) the quanta of meaning we perceive are nothing more than exercises in confirmation bias: we seek to identify and explicate the structure of meaning in that which we've already deemed to be meaningful. When we attempt to analyze music, by peering into its components and trying to assess what they determinately are, we incur that which is meaningful about our intention to analyze. In this sense, analysis will forever be thwarted by our very attempt at analysis, our own gaze. The more we try to subjectively peer into the musical object, the more the object resists our efforts to know it as a Thing-in-itself; it reflects our own gaze.

If the multiplicity of subjective and contextual meanings invariably come into play, is it futile to try and make compositional intent explicit? DeNora says no, but her discussion belies the larger ramifications of the argument she presents. If we, as listeners, are searching for musical meaning, then:

> to find meaning in an object is *believing* that the object in question is inherently meaningful and that it deserves to be taken seriously, that it is significant. The primary object of study, when focusing on musical meaning is to examine the way in which belief is inspired so that the listener listens 'in good faith' and thus, cooperates in fleshing out the sketchiness of the music so that it appears to mean something.[25]

Hence, the listener who gazes into the object for meaning finds only the listener. This shift in focus underlies what Leonard Meyer has called the "preparatory set," or the framing of an experience such that our belief that we should expect an encounter with

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[25] Ibid., 91.

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musical meaning ensures that we find it;[26] we are pushed towards finding meaning based around our set of expectations for meaning, which are informed by attuning ourselves to the "contextualization cues" of music.[27] These cues are often performative, social, gestural, and even architectural. And here, on this point, we come to refine our understanding of the musical object. Rather than being inherently meaningful, merely situated against a backdrop or "ground" of socio-cultural practice, music collapses into its socio-cultural situation in a process that constitutes the very means by which it is experienced as musical. Through this process meaning is sought and derived.

The collapsing of the musical object into its ground on the semiotic level should shift the discussion towards phenomenology via an address of contextual musical experience rather than reference. Inquiry into the perceptual basis of experience is in fact an inquiry into the territory of musical meaning; the phenomena surrounding music act less as a ground than as an integral and interactive component of the object they frame. DeNora hints at this stating: "perhaps the main reason we have so little trouble making sense out of just about anything,... is that we go to 'work' at meaning construction 'given the materials' at hand, i.e the perceived context of which the phenomenon is also a part and with which it reflexively reacts."[28] In other words, the extra-musical is always-already a part of phenomenal musical experience. So we can extend DeNora's insight to its logical conclusion: the givenness of the contextualization

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[26] see Leonard B. Meyer, "Meaning in Music and Information Theory," *The Journal of Aesthetics and Art Criticism* 15, no. 4 (1957).

[27] see John J. Gumperz, "Sociocultural Knowledge in Conversational Inference," in *Linguistics and Anthropology*, ed. M. Saville-Troike. (Washington, D.C: Georgetown University Press, 1977) and Tia DeNora, "'When You're Trying Something on You Picture Yourself in a Place Where They Are Playing This Kind of Music:' Musically Sponsored Agency in the British Clothing Retail Sector," *The Sociological Review* 48, no. 1 (2000).

[28] DeNora, "Extra-Musical Meaning," 90-91.

cues cannot be separated from musical appearance, and hence, are a part of establishing such appearance. For the listener, "to gain mastery in 'work' situations is to have control over the rhetorical means of making one's interpretations of objects, utterances, or acts seem 'as if' they are 'objective' ('good', 'beautiful', or 'true')."[29] Framing the listening experience helps to make explicit its semantic reference and to make such reference appear necessary because it is always-already grounded in experience. Again, we find that any pretense to musical objectivity is purely ideational; it is retroactively constituted through the subjective lens of the listener.

If we consider the semiotics of listener agency from the perspective of the composer-as-listener, the object of aural perception (the sign) becomes even more complex. The composer, in listening to her own work, is a listener towards the meaning she intends. So once her compositional activity becomes *about* framing a subjective listening experience (rather than attempting to encode objective meaning into the object itself) the explicitness of musical reference is moot; experience itself becomes objectified as that which should be meaningful. The frame for such experience is nothing other than how the composer has sought to contextualize her own listening. This is to say, that the composer's gaze itself becomes both the subject and object of any meaningful listening.

It is here where we re-incur the epistemological limitation, as derived from semiotics, which undercuts any pretense toward universalizing composer intention: the composer cannot know if or how the average listener will achieve meaning in her work, because she herself is part of the multitude reading meaning into it. Any consistent

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[29] Ibid., 93.

totality of meaning is therefore compromised because she cannot take into account how her own listening imbues the work with meaning, a meaning that may or may not comport with an average listening. For the composer, her only recourse is to consider the responses (critiques) of her peers and to subsequently attempt to frame (with recourse to rhetoric and the work's contextualization) a particular listening. By operating directly upon the context in which her propositional music takes place, the composer attempts to ensure that the meaning derived through listening more directly corresponds with the meaning apparent to her, through her own listening.

Derivation Three: Philosophical Reflexivity

Both composition and listening must *take place.* We may discuss each term here (symbolically) in the abstract, but insofar as we are talking about activities that happen in the world, they must be situated in both space and time. It is the philosophical consideration of place that provides us with a window into the limits of our knowledge concerning the reality of the world itself.

In outlining the spatial characteristics of sound, Yi-Fu Tuan made a passing aside to Roberto Gerhard's notion of form in music: "form in music means knowing at every moment exactly where one is. Consciousness of form is really a sense of orientation."[30] This remark of course reflects Jonathan Kramer's notion of "linear" time as it appears in music with functional harmony.[31] The relationship between place and music is thus immediately framed as a matter of *self*-relating, of knowing "exactly where one[self] is."

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[30] as quoted in Yi-Fu Tuan, *Space and Place: The Perspective of Experience* (Minneapolis: University of Minnesota Press, 1977), 15.

[31] see Jonathan Kramer, *The Time of Music: New Meanings, New Temporalities, New Listening Strategies* (New York: Schirmer Books, 1988).

Insofar as knowledge is a matter of thought, we incur the problem of thought attempting to gain traction on *being* (under the guise of where one *is*).

To consider music and place is, therefore, to consider the relation between thought and being, a consummate philosophical problem. As Ray Brassier concisely notes: "thought is not guaranteed access to being; being is not inherently thinkable. … The fundamental problem of philosophy is to understand how to reconcile these two claims."[32] Again, as in the case of modernism, we are faced with the task of 'impossible' reconciliation. Addressing this problem directly may provide us with some insight as to the full weight of the limitation on our ability to know *anything*, let alone the reality of the music we write.

To begin outlining how musical meaning may be known, we should allow Brassier to frame the problem further:

> For we cannot understand *what* is real unless we understand what 'what' *means,* and we cannot understand what 'what' means without understanding what 'means' *is,* but we cannot hope to understand what 'means' is without understanding what 'is' *means.*

> This much Heidegger knew.[33]

The appearance of Heidegger in this context is important. Philosophically, we may identify Wittgenstein and Heidegger as "the two emblematic representatives of the two principle currents of 20th century philosophy: analytic philosophy and phenomenology."[34] Both the analytic and phenomenological currents, which extend

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[32] Ray Brassier, "Concepts and Objects," in *The Speculative Turn: Continental Realism and Materialism*, ed. Levi Bryant et al. (Melbourne: re.press, 2011)*,* 47.

[33] Ibid.

[34] Quentin Meillassoux, *After Finitude: An Essay on the Necessity of Contingency* (London: Continuum, 2008)*,* 41.

from Wittgenstein's focus on language and Heidegger's focus on consciousness, respectively, are premised upon the subject's inability to talk about, let alone access, a world independent of the subject's gaze; the subject is *always-already* immersed in the world, a world predicated upon the subject's correlation to it. Here, the word "correlation" is not of passing significance; it is the heart of the matter. Quentin Meillasoux, in his increasingly notable book, *After Finitude* (2008), identifies *correlationism* as "the idea according to which we only ever have access to the correlation between thinking and being, and never to either term considered apart from the other."[35]

Meillassoux's notion of correlationism may be further understood as a term that encompasses issues of *reflexivity* or our finite relation to the world we *always-already* find ourselves in. Reflexivity describes the intractable condition of being a finite Being situated in the world with a necessarily limited perspective and horizon of experience. As a consequence of this condition, our being in the world mitigates any claim we make about the world. Any claim regarding language is expressed through language, and any claim about the properties of objects themselves is constituted through the subjective appearance of those objects as given to sense.[36] We cannot gain an absolute perspective over objects, let alone ourselves; for the more we strive toward objectivity, the more it implicates the subjectivity inherent to our access of those very objects we strive to know in and of themselves.

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[35] Ibid., 5.

[36] Hilary Lawson, *Reflexivity: The Post-Modern Predicament* (La Salle, IL: Open Court, 1985), 9.

Reflexivity reflects the deep philosophical problem facing us today, a problem that is the core tenant of our postmodern, relativistic crisis: the un-tenability of thinking the reality of objects in and of themselves, independent of their givenness to us. As Hilary Lawson describes it, "to insist that we are confined by the limitations of our own problematic, is to be confined within those very limits."[37] Thus, identifying reflexivity as operative, given our interactions with the world, only reinforces the limitation it imposes upon our ability to *know* the world in and of itself. Our contemporary, postmodern condition is epistemologically ungrounded, for we cannot find a Ground upon which to ensure that our thought carries any significance in regards to the objects of our thought.

This horizon of thought, which appears in Kant as a consequence of the dissolution of dogmatic Metaphysics (rejection of the ontological proof), remains predominate across theoretical discourses within the humanities, ranging from anthropology to art. Within such discourses, the limitations of finitude have paved the way for the rise of self-reflexive practices. Acting to address the very issues that condition action, our focus shifts toward the inescapability of the reflexive turn itself. In anthropological discourses, such a shift veers towards the consideration of the researcher as herself implicated in the context of observation, recording, and ultimately, re-presentation; hence, we encounter the "wish to explore new forms of writing that will reflect the newly problematized relationships among writer, reader, and subject matter... in an age when the native informant may read and contest the ethnographer's characterizations."[38] Whereas in the arts, the construction and transformation of

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[37] Ibid.

[38] Frances E. Mascia-Lees, et. al., "The Postmodernist Turn in Anthropology: Cautions from a Feminist Perspective," *Signs* 15, no. 1 (1989): 9.

materials now follow a logic of self-referentiality, whereby, "the writer discusses the role of the author, the artist includes his own easel in the painting, the film-maker films the making of the film."[39] Within such self-reflexive practices, claims to objectivity are treated as untenable. In lieu of the objective, we engage in the whole-sale endorsement of its converse: the subjectivization of phenomenal appearance, and the relativistic normalization of any given appearance over another. Such subjective prioritization begins and ends with the individual, and when expanded and viewed as operative within a larger social, discursive space, it is contingent upon a balancing of inter-subjective agreements.

Human finitude not only limits our ability to know that which exists beyond the phenomenal appearance of objects (i.e. to know the noumenal), but further limits our ability to even think its being, because to do so (to posit an absolute perspective) would necessarily be from within the limitation of our finite perspective, and only serve to reaffirm thought alone. Without any absolute, either principle (mathematics) or entity (God) acting as a guarantor of the in-itself (i.e. the noumenal), to think the possibility of objects existing independent of human access is to think the possibility of accessing nothing at all. As such, all we are left with are appearances and references to objects and referents whose reality cannot be obtained. Again, we are left with a "desert of the real." The consequence of finding ourselves in this "desert" is not merely that art becomes ungrounded, but that science itself presents no threat to correlationist thinking; one need merely assert that scientific principles and mathematical laws appear *for us* as absolutes. To think the being of universal laws is thus to reaffirm the priority of thought

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[39] Lawson, *Reflexivity*, 10.

over that which appears. Therefore, science becomes just another form of discourse. Scientific truth is reduced to a matter of inter-subjective agreement regarding our access of not only the results of science, but the core tenants of the scientific process (controlled experimentation, falsifiability, etc.).

On the Possibility of Thinking Beyond the Limitation

The epistemological limitation, or my inability to know what a music really is (whether I composed it or someone else did), appears to be rather intransigent, not easily overcome. To even suggest that we can think of an object existing independent of thought seems bound to reify the reflexivity inherent in the pursuit, to reify that we think. How then might we proceed in consideration of a music that may function as pluralism's difference? If we cannot think what this difference really is beyond the proliferation of differences, then are we not simply engaging in the circularity of some ideological thought? Are we not attempting to assert a distinction without any ground to maintain its difference? Are we not being sophistical?

Before we attempt to re-ground our knowledge of music, its basis in reality, (see Chapter 4) perhaps we can search out an example that points us in a useful direction. An example of a music or, more generally, an art that does not appear to be limited by the epistemological limitation.

A 'speculative' example: Robert Irwin's *One Wall Removed* (1980) seems to provide us with just such an example—a work of art that appears not to be dependent on knowledge regarding either its poietic procedure or even its existence. Irwin's description of his intervention at 78 Market St. in Venice, California may provide us with an introductory model for consideration. Having been granted the use of the space before its renovation, Irwin says:

My response "One Wall Removed" was to use the clean white space—30' wide, 80' deep, 12' high, with two boxed-in skylights set 2/3' of the way back into the space—by removing the front wall facing the street and stretching in its place a sheer white scrim, in effect creating as a tangible focus the shifting qualities of light and the varying visual densities of the space across the periods of the day. It was quite beautiful.

To press the issues, the building went unmarked and the work unlabeled, thus allowing the casual passerby the full excitement of discovering this uncluttered experience, free for the taking by anyone with "eyes." Perhaps it takes only one such "personal" art experience to alert you to the latent potential for beauty in pure phenomena as well as in worldly things?[40]

Irwin took knowledge out of the equation. The work itself has no meaning for us to *know*. To pass by *One Wall Removed* is to encounter the possibility of seeing. We may decide upon the object we see or we may possibly fail to see anything at all. The work means nothing beyond one's own mediation of the object's contingent existence, its *being* anything at all. If we begin to consider our aural experience of the world, we may ask: what are the possibilities for a composed aural experience to function similarly? If I, as a composer, am limited in my ability to specify a particular understanding of the composition I compose, then perhaps I should reconsider the presupposition that the composition is itself whole or in any way complete. In order to reconsider this presupposition we must develop a theory of ontological incompleteness in relation to aural experience.

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[40] Robert Irwin, *Being and Circumstance: Notes Toward a Conditional Art,* ed. Lawrence Weschler (Larkspur Landing, CA: The Lapis Press, 1985), 90.

CHAPTER 3
BETWEEN THE TWO: READDRESSING THE LISTENER IN SITUATED MUSICAL
PRACTICE

Questions Derived from Listening to One's Own Music

Upon completion of a musical composition, I switch perspective on the object of

creation. Relieved of the composer-ly motivation to make alterations to the work

according to some weighting of rationales, I start (by imagining the listener's

perspective) to question the basis on which any one rationale became operative in the

first place. Herbert Brün's assertion that "where there is no choice, there is no Art"[1]

reflects the importance of making choices as a matter of composition. However, this

assertion belies a latent and hierarchical problem: our first choice is actually to choose

the basis, reasoning, or even logic upon which we make further compositional choices.

Therefore, the methodology of compositional activity is at issue here, as it so often

provides the territory for further investigation. If the direct phenomenal experience of

listening bears no reflection to the methodology underlying the organization of sound,

then the composer should question the function of the chosen methodology. Through

responsive questioning, a piece of music, which itself may reflect the espousal of a

propositional response to some initial set of questions, may then provide the necessary

impetus for the formulation of a new set of questions, and a new artistic response. In

this (perhaps idealized) way, artist and creation(s) may become forever embroiled in an

antiphonal dance whereby one is always responding to the questions of the other.

Windows Left Open (2010) is a composition for microtonal chamber ensemble

and fixed electronics comprised of pitched percussion sounds placed against a

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[1] Herbert Brün, *When Music Resists Meaning: The Major Writings of Herbert Brün,* ed. Arun Chandra
(Middletown, CT: Wesleyan University Press, 2004), 3.

backdrop of environmental soundscape recordings. Live performers are asked to match

pitch with the algorithmically generated percussion sounds at their discretion in

accordance with the bounds articulated in the score. (Please refer to Appendix A for the

complete written score for *Windows Left* Open. Please refer to Object 3-1 for the fixed

electronic sound component of the piece). The sound and score were generated using

software I developed that allowed for the creation of multiple, unique versions of the

work, versions that aligned the work more with an installation, perhaps, than with the

concert hall presentation for which it was intended. This system could have been

configured to run indefinitely; *Windows Left Open*, while it is a work intended for concert

hall performance, can be presented as an installation that offers an infinite number of

variations to listeners who would come and go. My completion of the work prompted a

robust line of thought concerning how the work functions.

Object 3-1. Windows Left Open: fixed electronic sound component (.wav file 274MB).

I was both enthusiastic and nervous about its actual concert hall performance. As

I shifted perspective from composer to potential audience member, I started to

reevaluate two particular aspects of the piece: the connections between the fixed

electronic sounds and the relationship between these electronic sounds and the

instrumental sounds. I was worried the listener would interpret these two parts as

having no relationship to each other. I was also concerned about the performers' ability

to establish a relationship between the instrumental and electronic material; perhaps

pitch-matching would not be sufficient in order to establish a relationship between the

instrumental and electronic material.

While these concerns may sound like those of a composer still actively refining a piece, this was not the case. I finished the piece; there was nothing left to do. Poiesis was complete, followed out to its as-near-perfect-as-possible realization based on the limitations of my own initial conceptions, listening abilities, and the technology at hand. I ran the software that generates the pitched percussion materials and the data for the performance score several hundred times and intuitively selected five versions of the resultant audio output. These five selections, presented in time according to the sequence in which each version was generated, comprised the form of the piece. I also paired each section with a particular stereo soundscape recording of the Payne's Prairie Nature Preserve in North-Central Florida. I recorded each soundscape at a different time of day in autumn and edited the length of each to match its corresponding section. I then layered the two sources with minimal adjustment of amplitude levels. Once the constituent parts were put together, or, as Nattiez might claim, the "acts of composition" were complete, the work was then purely subject to esthesic consideration; I sought to "construct meaning, in the course of an active perceptual process."[2]

As a listener, I was able to correctly identify the work as presenting a non-unified whole with respect to its three parts: algorithmically generated tones, soundscape recordings, and live instrumental sounds. And yet, I was convinced, paradoxically, that a complex understanding of the parts being in relation to each other could arise despite their seeming disparity. This is a confusing and somewhat disorienting response to one's own work. If the points of tangency between the three types of sonic materials are tenuous, how can we nevertheless make sense of the work as a whole through our

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[2] Jean-Jacques Nattiez, *Music and Discourse: Toward a Semiology of Music*, trans. Carolyn Abbate (Princeton: Princeton University Press, 1990), 12.

listening? What is the composer's role in creating a *whole* work? That is, how does the composer operate to frame a listening experience in which the possibility of relationships between seemingly contradictory aural objects may arise? Ultimately, asking such questions becomes an opportunity to temporarily set aside the need to analyze acts of composition. Instead, we may focus on how a listener might experience seemingly disparate aural elements in relation to one another in order to understand how the *truth* of such experience emerges as a result of artistic intervention.

Externalizing the Experience of Art

Bruce Nauman's 1968 installation *Performance Corridor* consists of two fabricated walls placed so that they nearly converge. As a result, audience members are able to traverse a constantly shrinking or expanding corridor space. The resulting effect is that "the audience has been dispensed with, forcing the solitary spectator into a carefully manipulated behavioral pattern *that does not signify anything*."[3] Nevertheless, this behavior is crucial to the installation; "The viewer must traverse it and experience it for himself. The artwork transcends its traditional role as an object invested with meaning and becomes the occasion for pure consciousness."[4] The viewer-subject of artistic experience becomes his own object; the experience of walking becomes externalized to he who walks. Thus the work's object falls outside the purview of the artist him/herself. In other words, the installation is understood as the framing of a direct perceptual experience, one that implicates the viewer as part of the work; the work

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[3] Marcia Tucker, "Bruce Nauman," in *Bruce Nauman: Work from 1965-1972,* ed. Jane Livingston and Marcia Tucker (Los Angeles, CA: Los Angeles County Museum of Art, 1972), 42.

[4] Thomas DeLio, *Circumscribing the Open Universe* (Lanham, MD: University Press of America, Inc., 1984), 53.

functions as an empty frame for an object yet to come, rather than as an object to be viewed that requires symbolic interpretation of some representational content.

Thomas DeLio has thoughtfully connected this understanding of Nauman's installation to Christian Wolff's music, particularly his 1964 piece *For 1, 2, or 3 People.*[5] Wolff's development of an unconventional notation system allows performers to choose their own progression through the piece by asking performers to listen to the sounds generated by other performers and respond in a way that is both in accordance with the stipulations of the score and a result of individual performer predilections. As a result, *For 1, 2, or 3 People* cannot be conceived of through its score along; it rests on the performers' musical decision-making and interaction. In the same way that Nauman's *Performance Corridor* is understood to elicit the viewer's objectification of a direct perceptual experience by conditioning nothing but the viewer's conscious traversal of the installation, so too does Wolff's music exist in the direct experiencing of it.

However, unlike Bruce Nauman's installation, Christian Wolff's piece does not elicit a "behavioral pattern that does not signify anything."[6] Wolff's compositions are political; performers are asked to make decisions about what sounds to produce, both as individuals and often in relation to other performers as well. Performer agency over the specification of particular sounds and their arrangement breaks from the Western classical tradition of the Composer's absolute authority over all aspects of the music that should result from performance. In Wolff's work, the sociality of performance takes precedence over any particular or consistent musical appearance; he eschews

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[5] Ibid.

[6] Tucker, "Bruce Nauman," 42.

compositional authority in favor of a more democratic and, ideally, egalitarian basis for the determination of sound characteristics.

We may, therefore, say that Wolff's musical scores simply outline or frame how a propositional music might take place within (immanent to) the context of instrumental performance. Yet the act of framing itself, its conceptual notion, functions independent of any propositional music that results through performance. The notation for *For 1, 2, or 3 People* pre-defines a set of possible relations between performers, but unlike a piece by Beethoven, or even Schoenberg for that matter, the work does not exist beyond the experience of any given performance; Wolff's propositional music is generated (not just realized) concomitant with its performance. However, his work is nevertheless attached to a discursive social function, which emerges in consideration of performer agency and persists independent of any particular musical result. The significance of *knowing* how Wolff's music comes into being is itself a consistent notion—one that is up for interpretation and removed from the experience of any given performance.

Furthermore, Wolff's music remains unbalanced (non-egalitarian) in its relation to the audience; the relationship between composer and performer might be placed on more equal footing, but the audience has not been dispensed with. Performers may be integrated into the generative process of a work, but the listener's perspective relative to the notional object of music is still wholly dependent on her knowledge, or perhaps discovery, of performers behaving in a way that differs from Western classical convention and forces a break from the Great Man narrative of the Composer. Accordingly, the notion of a *listening performer* is undoubtedly operative, but the

emergence of the *performing listener*, as one who is implicated in the completion of the work through the active construction of intentional relations between the disparate objects of aural perception, remains inoperative.

The identification of the *listening performer* is similarly significant in *Windows Left Open*. However, the mechanisms through which the listening performer emerges are quite different. The score for *Windows Left Open* only provides information regarding the sequence in which the piece's microtonal, algorithmically generated electronic sounds appear. Performers are instructed to articulate particular notes at their own discretion; they can choose when and where to match pitch with the electronic sounds depending on their own listening. They are also encouraged to listen to both the underlying soundscape and fellow performers and respond in different ways. Performers play by listening and responding since there is no score to follow other than the sequences of pitches representing the sounds they hear. The written score is merely a guide for what is otherwise a phenomenological engagement with the electronic sounds. Like the walls of Nauman's *Performance Corridor*, and different from how Wolff's *For 1, 2, or 3 People* functions socially, the electronic sounds of *Windows Left Open* allow those listening, be they performers or audience members, to share access to the same object of (aural) perception, which suggests no further function beyond itself. When *Windows Left Open* is performed, the audience members and performers are both able to listen to the electronic sounds. However, the performers' and audience's relationship to the electronic sounds is not the same; performers can choose to play their instruments in correspondence with the electronic sounds, and so they actively engage with the electronics, whereas the audience only passively listens.

The performers' relationship to the fixed electronics begs the question: what is the listening audience member's engagement with both the sounds present in the electronics and the instrumental sounds that appear as a matter of performance? That is, to what extent might an audience member listen like a performer? And might we consider such a listener as a *performing listener*?

Co-incident Listener Experience

From an audience or listener perspective, the expansion of musical listening through the acceptance of sounds (and noises) of the world around us has stretched, and ultimately redefined, the ontology of music across the 20th century. Within academia, an entire field of contemporary critical discourse surrounding musical improvisation, from Jazz to live Laptop Performance, addresses the *listening performer*. Yet, rarely do the two intersect; rarely does our identification of the listening performer emerge concurrently with our identification of the *performing listener*. Our typology of listener engagement is reflective of the two discourses and may very well be secondary to what their co-incidence reveals: even when listener and performer share access to the same object of aural perception, a physical and discursive fundamental gap exists between them; the audience member is not on stage, and the performer is not in the audience. Yet, paradoxically, listening serves as a fulcrum that enables an understanding of the audience member as performing via intentional listening and the performer as audience to his/her own responsive listening. The resultant musical 'situation' is reflective of spatial expansion in both physical and discursive domains, which is more appropriately addressed not within the strictures of concert hall conventions, but rather in the more spatially variable medium of sound installation practices.

Place and Discovery in *Times Square*

Max Neuhaus' *Times Square*[7] (1977-1992; 2002-present) is not only the artist's

most well known work, but, thanks to Christine Burgin and the Dia Art Foundation,

remains extant.[8] While many contemporary artists working with sound choose to use

video recording to document a sound installation, Neuhaus' solution to the problem was

to create what he termed circumscription drawings, which were often diptychs

presenting a sketch of the site with some accompanying text describing the work and its

intended effect. For the majority of Neuhaus' work "these drawings are… the only

possibility of knowing certain thoughts that otherwise would remain unimaginable."[9] For

the circumscription drawing of *Times Square*, Neuhaus drew a slightly elevated, angled

representation of the pedestrian traffic island, which rests between 45th and 46th street

at the intersection of 7th avenue and Broadway, with what appears to be a column of

sound rising directly out of the triangular space.[10] The column of sound rising

perpendicular to the street reflects the verticality of the two large cubes/buildings

framing the far side of 46th street. In the last paragraph of the text that accompanies

this sketch, Neuhaus articulates his understanding of how the work functions:

> For those who find and accept the sound's impossibility… the island
> becomes a different place, separate, but including its surroundings. These

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[7] Italics denote the Neuhaus piece rather than the literal location.

[8] Philippe Vergne, "Preface," in *Max Neuhaus: Times Square, Time Piece Beacon,* eds. Lynne Cooke et al. (New Haven, CT: Yale University Press, 2009), 21.

[9] Yehuda Safran, "Drawings," in *Max Neuhaus: Sound Works, vol. II,* eds. Yehuda Safran and Max Neuhaus (Ostfildern-Ruit, Germany: Cantz, 1994), 7.

[10] Max Neuhaus, "Times Square," The Estate of Max Neuhaus, 1992, accessed September 24, 2013, http://www.max-neuhaus.info/images/TimesSquare.gif.

people, having no way of knowing that it has been deliberately made, usually claim the work as a place of their own discovering.[11]

These last few words bear repeating: "as a place of their own discovering." Neuhaus is drawing a direct connection between the process of aural discovery and the identification or perhaps emergence of a sense of place. The hypothesis seems to be the following: the discovery of a sound that is understood (as Neuhaus states earlier in the circumscription text) as "an impossibility within its context,"[12] has the effect of heightening, if not disclosing, a sonically delimited, subjective sub-place. Neuhaus is not casually using the word "place" here in order to indicate a mere physical location. Rather, we are to understand place as denoting a history of continual (re)habitation within a particular context, and as the feelingful dimension of the immediate situated experience of being there. Neuhaus' use of the term Place Work, rather than 'sound installation' or 'sound art' to refer to Times Square, is in fact grounded in this distinction.

As Pier Luigi Tazzi describes:

> First we have a place, then we have a sound construct that hinges on that place. Neuhaus begins by attempting to achieve an understanding of a work's particular site, examining the kind of sonority in which it is immersed, its historical or traditional connotations, the social functions for which it is employed, and finally the physical features that distinctively condition its use.[13]

It is clear that not only are considerations of place addressed according to acoustic, historical, socio-cultural, and physical perspectives, but the notion of place itself seems

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[11] Ibid.

[12] Ibid.

[13] Pier Luigi Tazzi, "Max Neuhaus," in *Max Neuhaus: La Collezione, The Collection* (Milan: Charta, in association with Castello di Rivoli, Museo d'Arte Contemporanea, 1997), 13.

to appear twice. First, as Tazzi indicated, as that which is always-already there, and then as the desired, imagined effect of the sonic intervention.

For me, *Times Square* was a sub-place within the pre-existing commercial 'Mecca' of Times Square before having ever directly experienced it. I learned from afar that such an installation was extant, and sought it out. When I did experience the work for the first time, I was nevertheless surprised that I still had to find it. While my experience of *Times Square* did not follow Neuhaus' idealized model of discovery, my prior conceptual awareness of the installation's existence did not fully alleviate the burden of discovery. This experience is echoed by Alex Potts, who in addressing the piece's true 'discoverability', claims that he "spent a good deal of time wandering one evening around the wrong end of Times Square... imagining [he] was hearing the work. [He] only happened to come across it just as [he] had given up hope of ever finding it."[14] However, such accounts beg the question: if even those who know of the installation must in fact discover it, is the discovery Neuhaus proposes merely an art-world quasi-discovery? Is it even possible for an ideal discovery to take place? It appears so, considering at least the following account of a person who passed through the site frequently:

> I work at 45th Street and Sixth Avenue in New York City. One evening some years ago, I walked across a traffic island at 45th and Seventh Avenue, and heard a strange sound coming from the side walk grating. It was metallic, deep and harmonic, with what you might call an urban New York mechanical strength. The sound had no discernible notes, so it wasn't really musical, but it wasn't noise either. It seemed to ebb and flow like a musical composition. I asked a police officer about the source of the haunting sound; he didn't know. Along with many other people, I often returned to that area of Times Square specifically to listen. At one point it

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[14] Alex Potts, "Moment and Place: Art in the Arena of the Everyday," in *Max Neuhaus: Times Square, Time Piece Beacon,* eds. Lynne Cooke et al. (New Haven, CT: Yale University Press, 2009), 52.

73

occurred to me that this was a work of sound art. I wrote to the Museum of Modern Art to inquire, but got no answer. Recently, I picked up a copy of Art in America and read the obituary of artist Max Neuhaus. To my surprise, I found out that he had created the sound work in 1977.[15]

The notion of "[returning] to that area of Times Square specifically to listen" is nearly a direct substantiation of Neuhaus' proposition that "sound is used as a subtle tool to shape a new perception of place."[16] Furthermore, the aural discovery of the work without an a priori understanding of it reinforces the link between the process of discovery and the emergence of a perceptually bound, subjective sub-place. In order to uncover the mechanisms by which Neuhaus' work functions, as framed by the notions of place and discovery, it is perhaps first critical to address Tazzi's implicit identification of a distinction between place and site from the perspective of the artist. Site, that which is directly addressed by Neuhaus and that which listeners conceptualize in confronting a sound's "impossibility," is necessarily the bridge between the two instances of place, as first being always-already there, and eventually becoming a new re-contextualized sensitivity. A deconstruction of 'site' will ultimately allow for a deeper understanding of how we move from one to the other through mere sonic intervention.

Because notions of site are much more well-formed within the area of what Neuhaus refers to as the 'plastic arts,' a term he has repeatedly found useful for distinguishing his work from that of musicians or composers, it may be helpful to address issues of site as they relate to Neuhaus from that perspective. In fact doing so may further reflect the irreducible shift in perspective that I hope to demonstrate as fundamentally operative in his work.

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[15] Steven Ross, "Aural Remembrance," *Art in America* (December 2009): 24.

[16] Neuhaus, "The Place Works," in *Max Neuhaus: La Collezione, The Collection* (Milan: Charta, in association with Castello di Rivoli, Museo d'Arte Contemporanea, 1997), 24.

Site: From Literal to Functional

A site is little more than an area of ground, in an abstract locational sense. It is

an area of ground that is both bound in some way (parameterized) and amenable to, or

demonstrative of, some intervention. Take for instance an empty lot amidst an urban

environment. For elucidation purposes, imagine that the surrounding buildings are

actively used, maintained, and stand in strict contrast to the empty lot. Therefore, we

may perceive the lot as if it is yearning for an intervention. It has potentially been

forgotten or neglected, and therefore demonstrates the physical manifestation or

emergence of site. Yet, such a description also points towards a similar understanding

of site as an 'area of ground' in a discursive space. Because I see the lot as an

architectural abeyance relative to the surrounding buildings and their cultural use, I can

easily imagine another site: a dialectical engagement arising between architectural

continuity and emptiness. A more complex understanding of site ensues. In recognizing

both the physical and discursive manifestations of site, we begin to develop a

dichotomous understanding of how each operates as two sides of the same coin.

James Meyer uses the terms 'literal' and 'functional' site to draw the above

distinction.[17] According to Meyer, the literal site refers to a physical 'area of ground', as

a site of action. It is the domain in which some intervention is materialized and thereby

activated. In contrast, his notion of functional site refers to a position of reception within

some discursive context, where the intervention means something in terms of thought.

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[17] see James Meyer, "The Functional Site: Or The Transformation of Site-Specificity," in *Space, Site, Intervention: Situating Installation Art,* ed. Erica Suderburg (Minneapolis, MN: University of Minnesota Press, 2000), 23-37.

Within the territory of the plastic arts, when the intervening act is situated both materially and dialectically, notions of the literal site and functional site are both constantly at play. In so far as art is situated in the world, issues of site are not only relevant but take on an increasingly important role in how we understand our own engagement with a work. In the context of more phenomenologically driven site-specific art, the literal site and functional site are wholly uneven. Concerning such an approach as evidenced by Richard Serra's public sculpture as well as the work of Light and Space artists Robert Irwin and James Turrell, the address of literal site is direct and substantive, while the address of a functional site is diffuse, if manifest at all.[18] To refer back to the earlier example of Nauman's *Performance Corridor*, the apparent absence of meaning beyond one's own direct experience of the work is reflective of a substantive address of the literal and an eschewal of the functional. Of course, placing priority on a literal address of site alone does not preclude any given viewer or listener from projecting meaning upon her own experience—from imbuing the work with a functional site that may or may not have been intended by the artist.

Yet, as is clear regarding the political implications of Christian Wolff's music, the site of artistic intervention is not necessarily one-sided, is not a framing of pure literal experience versus pure functional meaning. A new generation of artists whose work points towards even more general socio-political discourses, such as Christian Phillip

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[18] Though Robert Irwin's distinction between site-conditioned and site-specific draws a marked contrast between his work and that of Serra's, the work of both artists reflects a phenomenological approach to the notion of a situated aesthetic experience, whereby the literal site takes precedence. Therefore, each artist presents a different approach to the parameterization of site, yet neither of them necessarily attempts an address of functional site through their art or the context of its presentation. Neither Serra nor Irwin (nor Turrell for that matter) make art that means something else beyond the experiencing of it. Regarding Irwin's work, that which is 'conditioned' in relation to site is, however, a non-trivial distinction and thus his work is given substantial treatment in Chapter 5.

Müller, Andrea Fraser, Anne Hamilton, and Mark Dion exemplify this point. The work of these artists suggests that while neither one side or the other takes precedence, the gap between the two is ever widening. Meyer's introduction of the terms literal and functional in fact stems from what he identifies as a "displacement of the 1960s-generated notion of 'site-specificity' over the past thirty [now forty] years."[19] This new generation of artists approaches the notion of site-specificity as not merely a phenomenological engagement, but as a means to open up a larger discourse in the domain of thought. In doing so, an ever-greater separation between literal site and functional site appears to be operative.

Miwon Kwon has furthered our understanding of this trend towards the functional by discussing how notions of site have become "unhinged," as the practice of site-specificity has become reflective of the artist's role in the realization of the work.[20] Using the example of Mark Dion's *On Tropical Nature* (1991), for which the artist spent time at a (literal) site in the Venezuelan rainforest, collected and boxed a variety of objects found at the site, transported them to a gallery in Caracas, and displayed them as an installation fore-fronting issues concerning the representation of nature and larger global environmental concerns, Kwon argues that Meyer's identification of a predilection towards the functional underpins a transformation of the operative definition of site "from a physical location—grounded, fixed, actual—to a discursive vector—ungrounded, fluid, virtual."[21] Kwon's use of the word 'vector' here reveals her particular insight: the

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[19] Meyer, "The Functional Site," 35.

[20] See Miwon Kwon, *One Place After Another: Site-Specific Art and Locational Identity* (Cambridge, MA: MIT Press, 2002).

[21] Ibid., 29-30.

functional site operates reflexively with the movement of the artist him/herself. Through the artist's address of literal site as being primarily functional, "the site is now structured (inter)textually rather than spatially, and its model is not a map but an itinerary, a fragmentary sequence of events and actions through spaces, that is, a nomadic narrative whose path is articulated by the passage of the artist."[22]

Is this not precisely the artistic activity that DeLio argues stands in strict contrast to Nauman's *Performance Corridor* and the music of Christian Wolff? Doesn't the externalization of artistic experience decentralize the role of the artist/composer such that he or she is no longer the sole carrier of a functional site? Yet, if the artist relinquishes functional responsibility, then on whom does it fall, considering that the intervention is nevertheless sited? It would appear that the trend towards the functional, while nevertheless operative (as again evidenced through a propensity to understand Wolff's music as political), instead falls to the perceiver.

The Minimal Difference

An artist's awareness of her own itinerary, and the resulting increased onus placed on her role as carrier of the work, may point to a more fundamental discontinuity underpinning the distinction between literal site and functional site. Physically, an artist moves from literal site to literal site, but movement is also possible within a discursive space, as the artist moves from one functional site of reception to another. The notion of an artist traversing two spaces, one physical and the other discursive, reflects a parallelism of passage. For example, an artist who constructs two different installations at the same literal site may not reflect movement physically. But in so far as the two

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[22] Ibid., 29.

installations function differently, i.e., occupy different positions in the world of ideas and proposed meanings, the works may demonstrate movement through a discursive space. Therefore, the notion of passage, particularly a parallelism of passage, reflects an understanding that the artist is capable of movement through both literal and functional spaces, independently of each other. Of course, this capability is not the artist's alone; artist and perceiver alike demonstrate both notions of movement: each may come to and leave a literal site, and each may come to and leave a functional site too.

There is always-ever a continuum of engagement marking an individual's passage through physical spaces and passage through headspaces. What there is not however is a continuum of engagement bridging the two. Between the two notions of passage, there is an irreducible discontinuity. This discontinuity is in fact the gap discussed in the previous section, between literal and functional notions of site.

Parallax in theory

Žižek would use the term parallax gap to describe the irreducible literal/functional antimony. Parallax denotes "the apparent displacement of an object (the shift of its position against a background), caused by a change in observational position that provides a new line of sight."[23] Parallax therefore becomes useful in describing the two notions of site, because of the gap that emerges due to the shift in perspective between site as literal and site as functional. By shifting (moving) between the two perspectives on site, I myself am implicated in the site, as constituted by me. As Žižek further clarifies from first a Hegelian and then Lacanian stance:

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[23] Slavoj Žižek, *The Parallax View* (Cambridge, MA: MIT Press, 2006), 17.

> Subject [(viewer)] and object [(site)] are inherently 'mediated,' so that an 'epistemological' shift in the subjects' point of view always reflects an 'ontological' shift in the object itself. Or—to put it in Lacanese—the subject's gaze is always-already inscribed into the perceived object itself, in the guise of its 'blind spot,' that which is 'in the object more than the object itself,' the point from which the object itself returns the gaze.[24]

The difference we find between literal and functional perspectives on site reflects the minimal difference between a site (its phenomenal presence) and itself (its noumenal notion). This minimal difference, or fundamental discontinuity, provides the basis for understanding how artist or perceiver (she who mediates the gap between literal and functional) moves to further implicate herself as both the subject and resultant object of her own experience.

Parallax in practice

Sculptor Tony Smith's anecdote about an experience in the early fifties in which he was able to drive the then un-opened New Jersey Turnpike late at night might be able to shed some light on the issue. Smith, in recounting the drive, positions himself as an audience to the aesthetic experience of late-night highway driving, and in this capacity, outlines a train of thought which gives rise to a full disclosure of himself as viewer-subject. As Smith describes:

> This drive was a revealing experience. The road and much of the landscape was artificial, and yet it couldn't be called a work of art. On the other hand, it did something for me that art had never done. At first I didn't know what it was, but its effect was to liberate me from many of the views I had had about art. It seemed that there had been a reality there which had not had any expression in art. The experience on the road was something mapped out but not socially recognized. I thought to myself, it ought to be clear that's the end of art.[25]

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[24] Ibid.

[25] as quoted in Samuel Wagstaff, Jr., "Talking with Tony Smith," in *Minimal Art: A Critical Anthology,* ed. Gregory Battcock (Berkeley and Los Angeles: University of California Press, 1968), 386.

There are three key aspects to the progression of thought presented in Smith's account of his NJ Turnpike experience. First, there is the immediate, phenomenal experience of driving on the highway. Second, there is the questioning of that experience's relationship to a larger discourse concerning the ontology of art. And third, there is a self-reflexive disclosure, positing "the end of art." In turning his focus from the immediate presence of the experience to identifying that same experience as something that "had not had any expression in art," Smith shifts perspective in search of a functional site. As a result, the object of Smith's experience and the object of his thought are co-incident with a third unfathomable object, the minimal difference between the phenomenal experience and its noumenal self: the gap occupied by Smith himself. By discovering, or even positing, the potential for a functional site of reception, his account collapses back in on himself, which he demonstrates by prefacing his final assertion in a self-reflexive way, stating, "I thought to myself, it ought to be clear that's the end of art." Though his concern with the "end of art" is reflective of an absence of an artist-subject (seeing as how the highway is a product of civil engineering), the discovery of the mere potential for a functional site of reception nevertheless coincides with a re-emergence of Smith himself as perceiver-subject. Smith's own trajectory as a perceiver of the 'work' is implicated in the very constitution of the work; the work of art is nothing but the effortful attention he brings to bear on his own phenomenal experience of driving along the highway at that particular place and time, nothing but his own intervening mental work of moving from a literal to a functional notion of site.

It is here, finally, where we are able to identify the process of discovery as important from the perceiver perspective. What else is discovery if not a fundamental

shift in perspective disclosing a gap between what we thought we knew and what we know now? When we discover something it is necessarily through confrontation: a penny on the street, a movie discontinuity, a mathematical proof, a missing puzzle piece, etc. The minimal difference between the confrontational object and itself marks an ability to discover distinctions. To the extent an art object (art work or a site of artistic intervention) confronts a viewer/listener and enables a shift of perspective on that object by uncovering a distinction, the viewer/listener is implicated in the process. Discovery enables the emergence of the perceiver-subject, providing a means for not "the end of art," but a relinquishing of artist-as-subject prioritization. Ultimately, it becomes possible to approach artistic intervention as a means of facilitating discovery through mere confrontation with an intervening object.

The Confrontational Sound Object in Times Square

Equipped with a fuller understanding of the mechanism by which discovery operates in an artistic capacity, from the perspective of the perceiver, we may return to the work of Neuhaus and assess the potential for discovery concerning the intersection of sound and site. If discovery is to *take place*, that is, occur in a situated capacity, framed by a particular configuration of place and moment, the confrontational object that enables discovery must too be situated. The use of the word 'situated' does not denote immobility, but rather a particular delimiting (in space and time) of a literal notion of site. Sound, not just mere sound, but a particular, designed sound is of course Neuhaus' situated, intervening object. It is also Neuhaus' sole intervention; the vast majority of his work is not even labeled on site. As he states in the documentation for his 'place work' *Three to One* (1992–present), he is interested in letting sound "be the sole carrier of

meaning in a sound work."[26] I would argue that Neuhaus' use of sound enables it to be

the sole instigator of meaning. The carrier job is actually deferred to "those who find and

accept the sound's impossibility."[27] Nevertheless, Neuhaus recognizes that he himself

does not carry the meaning of the work, or in other terms, determine its functional site of

reception.

The sound is of course different for each of Neuhaus' installations, yet this

difference is not established a priori. Remember, the singularity of a particular Neuhaus

sound object, what he often refers to as its sound character, is derived through his own

aural investigation of site (and of the site's own sound character).[28] In this way,

Neuhaus' artistic process places him first as the listener-subject within a given context.

Neuhaus then moves backwards to address the shape, color, and scale of the sonic

intervention, which through an encounter/confrontation, provides the minimal

intervention necessary to aurally re-frame the given context. Tazzi reinforces this notion

of backwards movement, claiming that the experience of a Neuhaus installation

"devolve[s] upon three fundamental components: the sentient subject, the new

articulation of sounds elaborated by the artist, and the context. The actual procedure of

composition might be said to reverse this order, moving from context to subject."[29] What

Tazzi overlooks however, is that the subject is not pre-given, but rather disclosed

through an encounter/confrontation with the sound object. In this way, Tazzi's ordering

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[26] Max Neuhaus, et al., *Three to One: Max Neuhaus* (Brussels: Encore,in association with La Lettre Volée 1997).

[27] Neuhaus, "Times Square."

[28] Neuhaus, "Three to One."

[29] Tazzi, "Max Neuhaus," 16.

of sound object and subject should actually be switched, such that the subject is always between the sound object and the context. Neuhaus' compositional process ensures that the confrontational sound object is always integrally tied to the very place it aims to contextualize.[30] The sound is a fulcrum, or "a subtle tool to shape a new perception of place."[31] As not merely a 'site-specific', but further, a 'site-conditioned' sonic intervention (following Robert Irwin's distinction),[32] the confrontational sound object of a Neuhaus work serves as an instigator for uncovering a minimal sonic difference; a plausible but impossible sound serves as a pointer to the mere suggestion of 'site,' which, once found, embarks the listener upon a Tony-Smith-like process of subjecting his/herself to the confrontation. Just like Smith, the listener, who is confronted by the "impossibility" of the phenomenal presence of sound, shifts perspective towards positing its noumenal notion, and then self-reflexively confronts the minimal difference as him/herself.

The shift in perspective occurs around the sound's plausible/impossible engagement with site. Once a passer-by asks the question, "is that sound of the site?," she has discovered her own ability to shift perspective on the sound object (listen in a functional capacity), implicating herself as the listener-subject. And here's the key point: regardless of how the passer-by answers that question, that is, regardless of whether she determines the sound to be of the literal site or not, she has posited a functional site, demonstrating a perspectival shift that discloses not an ability to listen, but an

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[30] Neuhaus would certainly object to the use of the word "compositional" here, probably preferring "design" instead.

[31] Neuhaus, "Place Works."

[32] see Robert Irwin, *Being and Circumstance: Notes Toward a Conditional Art*, ed. Lawrence Weschler (Larkspur Landing, CA: The Lapis Press, 1985).

awareness of *being herself* through the epistemological shift that occurs as a consequence of listening.

Returning to a discussion of *Times Square*, Neuhaus' confrontational sound object, which at first exists for the passer-by only in a pre-given "world-place," becomes a point of departure for a shift of perspective concerning Times Square itself. The shift occurs at the instant the question/discovery emerges: "could Times Square be more than just Times Square?," that is, "could Times Square (as a socio-cultural, inhabited place) be a functional site for art?" The answer doesn't matter. To find *Times Square* as a "place of [one's] own discovering"[33] only requires that the question be asked. The question alone is evidence for the sound object having instigated the minimal degree of discovery necessary to disclose the minimal difference between Times Square and itself: the listener-subject. Figure 3-1 provides an illustration of the emergence of the listener-subject, as manifest in *Times Square* and Neuhaus' work more generally.

If a minimal degree of discovery is required to elicit the minimal difference between Times Square and itself, perhaps we have a better understanding of why the piece remains successful even for those art-world individuals who know of its existence and search it out. To refer back to Alex Potts' "good deal of time [spent] wandering one evening around the wrong end of Times Square,"[34] the search for the installation and the subject of the installation are one and the same. Potts was in effect repeatedly encountering himself as listener to a functional Times Square, yet without the accurate identification of a confrontational object. The situated *mediation* of a literal and

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[33] Neuhaus, "Times Square."

[34] Potts, "Moment and Place," 52.

functional site that ensued as a result of Potts' own desire to discover *Times Square*

disclosed the very same subject that a true confrontation with Neuhaus' sound object

potentially elicits. How many times did Potts discover himself in that place? How many

aurally bound, subjective sub-places were framed through his listening? In this sense,

our capacity for situated musical experience lies always ready-to-hand; to even suggest

that there is some thing/object to listen to, if one is only able to find it, provides the only

intervention necessary to find oneself. This lesson, which Neuhaus toiled to such

marvelous effect to teach us, is applicable beyond the scope of sound installation work;

it may in fact enable composers to re-inscribe, or at least re-discover, the reflexive

capacity of listening regardless of the performance site.

The Concert Hall as a Place of Discovery

How might sound confront a listener as an anomaly within the context of the

concert hall? And, how might the experience of seated, attentive listening become a

process of discovery? These questions bring us back to the initial consideration of a

listener's experience of *Windows Left Open*. It would appear that discovery is precisely

the issue at hand concerning my initial worries about the performance of my piece. Is it

not the perceived lack of relationship existing between two constitutive elements that is

precisely the object that confronts the listener? As we watch/listen to the performers

attempt to match microtonal pitches heard in the electronic sounds, which all are privy

to, we identify their imprecision and, in doing so, implicate ourselves as the subject that

perceives the difference. Our listening duly primed, we may then shift perspective on

the schism between pitched percussion sounds and the background soundscape, and

again, through the difference, self-reflexively attune ourselves to our own perception.

All too often, the compositional drive is a search for Kantian transcendence, a positive affirmation of the "I", as listener, who subsists in rectifying or smoothing out the underlying antimonies presented as objects of aural perception. However, our capacity to smooth over, to cover up, or to integrate emerges as an avoidance of a more fundamental void: an avoidance of self. Instead, perhaps, composition should seek to accentuate, rather than resolve, an underlying discontinuity of parts, and present a deep structural and formal inharmonicity lurking under the guise of a superficial, harmonious whole.

Windows Left Open may be described as both listenable and fractious. Its listen-ability is superficial, while its fractiousness is substantive, yet lacking any substantial positive form. Its constituent elements open up a system of irreducible gaps: between algorithmically generated tones and soundscape recording, between computational precision and organic/instrumental imprecision, and lastly, between the listening performer and the performing listener. These gaps are the objects that the piece offers up to the listener for discovery, the discovery of oneself as both the subject and object of a framed aural experience.
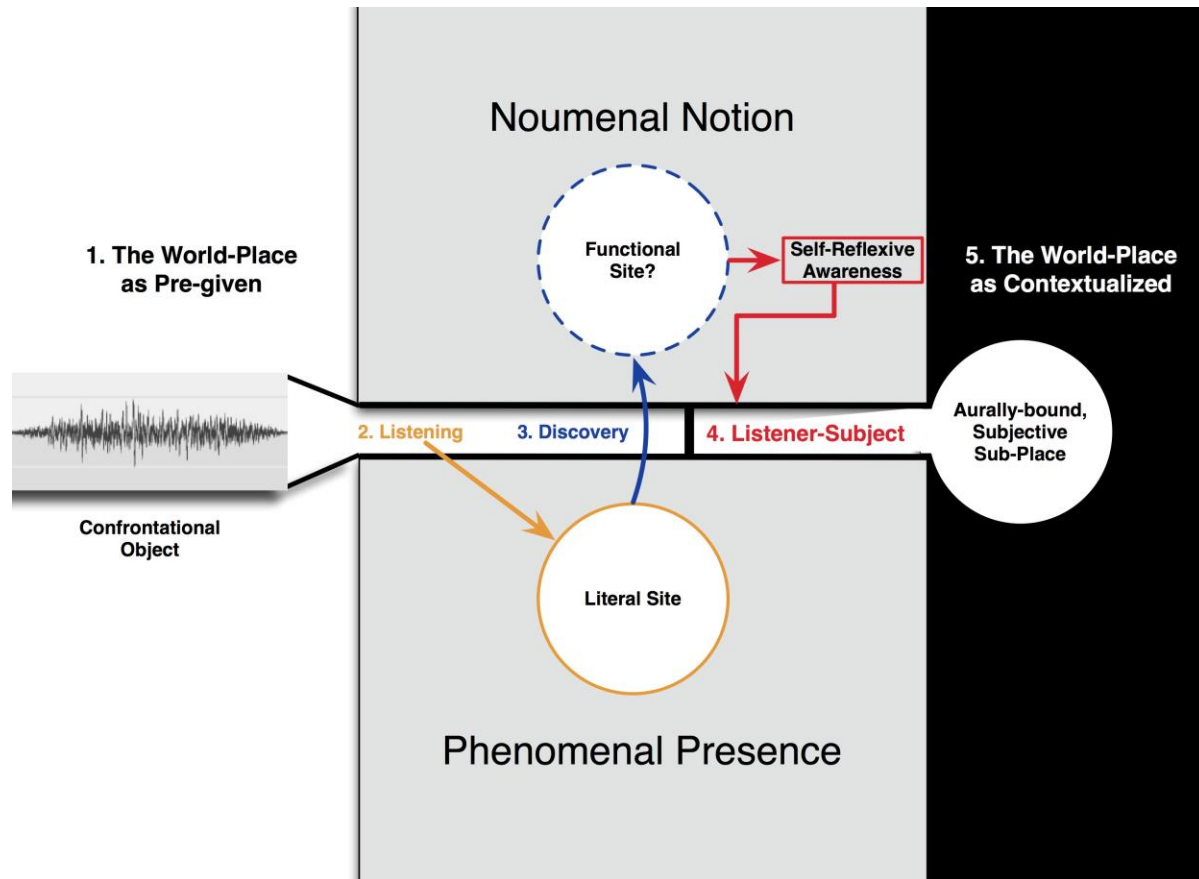
Figure 3-1. The emergence of the listener-subject (moving from left to right).

CHAPTER 4
THE EMPTY PLACE: TOWARD A THEORY OF ONTOLOGICALLY INCOMPLETE
MUSIC

In the previous chapter, *Times Square* provided a point of reference for a

composed (or designed) listening experience that is not limited by our knowledge of

how, why, or even if it exists. Neuhaus' work appears to fully subsume the

epistemological limitation as part of its being. In *Times Square*, any potential breakdown

in the conveyance of meaning, the semantic leap between poiesis and esthesis, which

threatens virtually all music, is dispensed with. The threat of meaninglessness, of not

knowing *Times Square's* sound as anything beyond incidental sound, is reconciled

through the work's full acceptance of such a possibility being its subject. Times Square

ontologizes the epistemological limitation, our inability to know the reality of one's

compositional intervention or its effect.

While our treatment of *Times Square* provided a unique lens for considering non-

transcendent (immanent) concert hall experience, in regards to my piece *Windows Left

Open*, its lessons perhaps extend further; *Times Square* should force us to consider and

outline a theoretical framework for an ontologically incomplete listening experience. The

difference between the non-incidental sound of Neuhaus' intervention and the incidental

sound of Times Square (the place) may or may not be noticed by those who pass

through the site. However, a potential failure to notice does not reflect a limitation of

knowledge. Rather, the difference is ontological; failure to notice suggests that

Neuhaus' intervention is itself incomplete or non-All. *Times Square* is not fully

constituted because it remains to be decided upon. Before one thinks to listen, *Times

Square* is not necessarily a work to be listened to—let alone a work to be listened to in a

particular way, given a particular perspective. Listening itself is simply a possibility

given the place—a possibility that becomes actualized only for those who recognize themselves in the appearance of an ontological difference between kinds of sounds. A more detailed theory of the tenuous ontological considerations that arise between music and its taking of place will help us to make sense of how we might move beyond, or at least reframe, compositional intention and, ultimately, practice.

The Nature of Sound

To begin our search to theoretically circumscribe the possibility of aural experience unburdened by epistemological limitation, we must begin at the deepest point of consideration regarding *Times Square*: the relation between the listener-subject and the confrontational object. In Chapter 3, we outlined the effects of such a relation and its propensity to spur listener self-identification. However, what is the status of the object that initiates (causes) such effect? Or more precisely, on what basis may a composer seek to use vibrational sound as leverage, to tear open the gap between a listener's phenomenal experience and the noumenal notion of that which the listener experiences? This question concerns nothing other than our ability to think the noumenal, the status of the object (sonic or otherwise) as a Thing-in-itself, the Kantian *Ding an Sich*.

To begin at the beginning (at least in regards to the paradox as it appears relevant to Music), we ask "if a tree falls in the forest and no one is there to hear it, does it make a sound?" I'm not being pedantic here, for it is precisely our ability to interrogate this question that provides a foundation in reality that supports us in drawing useful and pragmatic distinctions between objective determinations and subjectivist prerogatives. What lies at the heart of this question is the (old, metaphysical) consideration of primary vs. secondary qualities, primary qualities being those characteristics inherent to the

object itself, that are measurable and quantifiable, and secondary qualities being those characteristics that are dependent upon one's access. Take for instance an apple, objectively it may weigh 3.42 ounces, be 4.22 inches wide at its maximum, and have a core length (discounting the stem) of 2.35 inches. Conversely, it is only through subjective representations that one claims that it looks green, feels firm, and tastes tart. We could, of course, also attempt to estimate its weight, width, etc. based on subjective representations and say that the apple *feels* like it weighs three-and-a-half ounces. Even if we attempt to link such secondary qualities with their primary notion, we must concede that any given secondary quality cannot be universally maintained across subjects; they are only extant for any particular subject.

Most often, we answer the tree-in-the-forest question through a shift of epistemological perspective that reflects both primary and secondary considerations: on one hand we maintain that Acoustics, or the scientific study of physical vibrations and their mechanical production and sympathetic propagation through a medium, would answer in the affirmative (the tree fall makes a *vibrational sound*), while on the other hand we contend that a Psychoacoustic perspective would affirm sound's presence only through perception, and thus answer in the negative (no sound, because no one's there to hear). The switch between Acoustic and Psychoacoustic perspectives is concomitant with objective versus subjective priority, respectively, concerning the relation between perception and that which is perceived. Subjectivist priority today appears as the stronger philosophical position, particularly once we realize that the result of any objective measurement must itself be perceived. Thus, even regarding the Acoustic

perspective, the objective measurement of vibrational sound is contingent upon inter-subjective agreement on the results of such measurement.

Meillassoux

As discussed in Chapter 2, philosophy has, by and large, dispensed with primary qualities; any conceit toward obtaining access to objective reality is dismissed as only appearing as reality for us. The means of such philosophical rejection of primary qualities is founded upon what Meillassoux termed *correlationism*: "the idea according to which we only ever have access to the correlation between thinking and being, and never to either term considered apart from the other."[1] Science, of course, disregards this philosophical dismissal and proceeds with uncovering and describing the factors that govern objects themselves. The scientist disregards the epistemologically shaky ground supporting scientific pursuit, in light of continued practicality and apparent consistency of scientific results.

Within the discourse of post-Kantian philosophy, however, the radical finitude of experience reflected in our necessarily limited perspective on the world means that we can never fully know the world because independent material reality only ever appears *for us* (as dependent upon our access). Even Alain Badiou's considerable efforts to establish ontology as mathematics (as an identity) fails to move beyond correlationist reproaches, for mathematics itself still appears as given in its symbolic quantification of material reality. Hence, mathematics (the discourse of being qua being) and thought still appear in terms of their correlated-ness. The same argument holds for the acoustic

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[1] Quentin Meillassoux, *After Finitude: An Essay on the Necessity of* Contingency (London: Continuum, 2008), 5.

perspective: it is nothing more than the appearance of an acoustically described reality for the scientist.

Meillassoux's project is precisely to undermine the correlationist argument: to think beyond correlationist reproaches and re-establish a foundation for considering the object, its primary qualities, independent of one's access, "to maintain that the mathematizable properties of the object are exempt from the constraint of such a relation, and that they are effectively in the object in the way in which I conceive them, whether I am in relation with this object or not."[2] The objective reality of vibrational sound, the object that precedes any subjectivist determination of *sound as sensed*, let alone the notion of music, is implicated in Meillassoux's thesis.[3] Hence the results of his argument are exceedingly relevant for any theory of aural experience that attempts to account for the ontological difference between a co-occurrent subject and object. In other words, we must maintain the legitimacy of thinking the reality of vibrational sound as an object existing independent of one's access if such access itself is addressable through compositional intervention. Our understanding of material reality informs how subjective access can be shaped by intervention. Instead of just placing our trust (belief) in science, or more generally, in the inter-subjective agreement upon that which appears in the world, we should try to re-ground our ability to think the independence of material reality. Here, we should defer to Meillassoux. Meillassoux provides us a way

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[2] Ibid., 4.

[3] In fact, Meillassoux's consideration of the 'arche-fossil' (the object supporting claims about a reality before human access) in his first chapter is a more material-driven formulation of the tree-in-the-forest question. Really, the only difference between the two beyond a restriction in the domain of sensory perception (the priority we are giving to aural experience), is that we would have to frame our consideration of a tree-fall within a time anterior to human existence. That is, "if a tree fell in the forest before any human was alive to hear it, did it make a vibrational sound?" For our purposes, however, the analogy holds and its consequences, the results of Meillassoux's line of thought, are not mitigated in the case of vibrational sound and our perceptual (aural) access.

to answer to the tree-in-the-forest question in the affirmative, saying "yes, vibrational sound exists independent of our access," if we are ever to consider the (minimal) difference between vibrational sound and sound as it appears for us (as heard or listened to).

Radical Contingency

Meillassoux accomplishes his task not by attempting to re-establish a dogmatic metaphysics or ontological proof, as in the work of Descartes,[4] but by delving into and assuming the full consequences of correlationism. We may outline Meillassoux's argument as follows:

Correlationism: There are two types of correlationism to consider: weak and strong.[5]

The 'weak' model: The weak model asserts that any claim to the necessity of a Thing's existence is a necessity for ourselves, but "we have no grounds for maintaining that this necessity… is also a necessity in itself." The weak model is thus a limitation on knowing the absolute as an entity. It is our epistemological limitation derived through our own finite, human perspective. Yet, Critical philosophy "maintains the thinkability of the in-itself. According to Kant, we know *a priori* that the thing-in-itself is non-contradictory and that it actually exists,"[6] "otherwise there would be appearances without anything that appears."[7] As a result, non-contradiction is maintained as an absolute, although against any notion of an absolute entity.

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[4] Meillassoux, *After Finitude,* 29.

[5] Ibid., 30.

[6] ibid., 35.

[7] ibid, 31.

The 'strong' model: The strong model, however, goes a step further, by undermining the thinkability of objective reality. It begins by taking on the full idealist weight of Kant's Critique: without recourse to knowing the object in itself, to ground its necessity, the correlation between thought and being cannot be *deduced*, it can merely be *described* following the fact of its givenness. Meillassoux refers to this as the 'facticity' of the correlation.[8] The strong correlationist rebuffs any pretense toward the absolute by simply extending the notion of facticity beyond mere sensory phenomena into the domain of logical principles, i.e. contradiction. "Consequently, there is no sense in claiming to know that contradiction is absolutely impossible, for the only thing that is given to us is the fact that we cannot think anything that is self-contradictory."[9] Thus any absolute (entity or principle) is undermined, uprooting any argument for the necessary existence of external reality. Yet, its obverse is also maintained: we cannot show as necessary the non-existence of external reality. As Meillassoux recapitulates:

> The strong model of correlationism can be summed up in the following thesis: *it is unthinkable that the unthinkable be impossible.* … Accordingly, facticity entails a specific and rather remarkable consequence: it becomes rationally illegitimate to disqualify *irrational* discourses about the absolute on the pretext of their irrationality.[10]

Religiosity thus returns in secular garb. "To put it in other words: *by forbidding reason any claim to the absolute, the end of metaphysics has taken the form of an exacerbated return of the religious.*"[11] We incur fideism as a result of unreason.

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[8] Ibid., 38.

[9] Ibid., 39.

[10] Ibid., 41.

[11] Ibid., 45.

Absolutizing the 'strong' model: We must therefore take aim at the strong

model, for only it abolishes any and all absolutes. Furthermore, we cannot attack it from

outside, for to do so would force us to seek recourse in the infallibility of logical

principles. Any attack must therefore come from inside, internal to one's traversal of the

correlationist circle. We "must absolutize the very principle that allows correlationism to

disqualify absolutizing thought."[12] This means that in consideration of the strong model,

"we must try to understand why *it is not the correlation but the facticity of the correlation*

that constitutes the absolute. We must show why thought, far from experiencing its

intrinsic *limits* through facticity, experiences rather its *knowledge* of the absolute through

facticity."[13] Thus we must reveal 'unreason', as upheld through facticity, as "an absolute

ontological property, and not the mark of the finitude of our knowledge."[14]

After death eventualities: Meillassoux proceeds by interrogating the

correlationist response to after death eventualities from the position of the living. The

correlationist, in order to uphold the rationality of irrationality, must maintain an inability

to know (an agnostic perspective) in this context. The correlationist must find a way to

counteract the "subjective idealist" argument, whereby "I cannot think of myself as no

longer existing without, through that very thought, contradicting myself. I can only think

of myself as existing, and as existing the way I exist; thus, I cannot but exist, and always

exist as I exist now."[15] To discount this necessity, "the agnostic has no choice: she must

maintain that my capacity-to-be-other in death… is just as thinkable as my persisting in

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[12] ibid., 51.

[13] Ibid., 52.

[14] Ibid., 53.

[15] Ibid., 55.

96

my self-identity."[16] Here, ontological necessity is revealed as nothing other than the

capacity-to-be-other. Our ability to think all eventualities concerning the radical

transformation of our being means that "*this capacity-to-be-other cannot be conceived*

as a correlate of our thinking, precisely because it harbours the possibility of our own

non-being."[17] We have found our absolute within the correlationist circle itself, not as an

absolute entity (which is still disqualified), but as an absolute principle: *radical*

contingency; the absolute is the possibility for all Things (the in-itself) to actually be

different, to change from any given state into any other state whatsoever for no reason

at all. The necessity of contingency means that even mathematical laws are themselves

subject to change (not just epistemologically, but ontologically).

Meillassoux and Speculative Philosophy

Meillassoux's argument is properly speculative in consideration of the three

positions outlined across the philosophical discourses of German Idealism:

metaphysical, transcendental and speculative. Žižek provides us with the precise

definitions of each position, respectively:

> In the first, reality is simply perceived as existing out there, and the task of
> philosophy is to analyze its basic structure. In the second, the philosopher
> investigates the subjective conditions of the possibility of objective reality,
> its transcendental genesis. In the third, subjectivity is re-inscribed into
> reality, but not simply reduced to a part of objective reality. While the
> subjective constitution of reality—the split that separates the subject from
> the In-itself—is fully admitted, this very split is transposed back into reality
> as its kenotic self-emptying…. Appearance is not reduced to reality; rather
> the very process of appearance is conceived from the standpoint of reality,
> so that the question is not "How, if at all, can we pass from appearance to

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[16] Ibid., 56.

[17] Ibid., 56.

reality?" but "How can something like appearance arise in the midst of reality? What are the conditions for reality appearing to itself?"[18]

This is precisely the logic that informs the remainder of Meillassoux's text, as he confronts the implications of radical contingency from the perspective of its non-appearance: if everything is contingent why do determinant cause-effect relationships appear to persist? This is a question that we will come back to at the beginning of Chapter five. Before we do, we should elucidate (from a musical, and [newly-rehabilitated] scientific, perspective) the base findings of Meillassoux's project. It will then be for us to consider the consequences and implications for music and, ultimately, how Meillassoux has perhaps not gone far enough.

Criticism of Absolute Contingency

Meillassoux's argument is itself not above criticism. For instance, Ray Brassier (who is, in fact, translator of *After Finitude*) has argued that Meillassoux jumps through extraneous philosophic gymnastics when the correlationist argument can be undermined by revealing a more simple linguistic conflation of sense and reference; the appearance of reflexive, epistemological limitation thus belies an academic tautology.[19] Yet identifying the tautology only returns us to the 'weak' version of correlationism and provides us with no further insights regarding reality itself. Furthermore, Martin Hägglund,[20] Adrian Johnston,[21] and Slavoj Žižek[22] have all taken issue with the many

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[18] Slavoj Žižek, *Less Than Nothing: Hegel and the Shadow of Dialectical Materialism* (London: Verso, 2012), 144-145.

[19] see Ray Brassier in "Concepts and Objects," in *The Speculative Turn: Continental Realism and Materialism*, ed. Levi Bryant et al. (Melbourne: re.press, 2011), 47-65.

[20] see Martin Hägglund, "Radical Atheist Materialism: A Critique of Meillassoux," in *The Speculative Turn: Continental Realism and Materialism*, ed. Levi Bryant et al. (Melbourne: re.press, 2011), 114-129.

[21] see Adrian Johnston, "Hume's Revenge: À Dieu, Meillassoux?," in *The Speculative Turn: Continental Realism and Materialism*, ed. Levi Bryant et al. (Melbourne: re.press, 2011), 92-113.

consequences that unfold from Meillassoux's 'hyper-Chaos' (where even becoming is itself contingent), particularly regarding the maintenance of cause/effect relationships (alluded to above), the possibility for a God-yet-to-come, and an unsatisfactory address of the "'hard problem': an account of the relationship between mind and matter not just in terms of the former's epistemological access to the absolute being of the latter in itself, but in terms of whether or not mind can be explained as emergent from and/or immanent to matter."[23] These criticisms basically concern the extent of Meillassoux's speculative endeavor (which, following Žižek's formulation, necessarily confronts the 'hard problem'). For our own musical purposes though, these critiques are interesting yet appear to qualify the implications of radical contingency rather than undermine Meillassoux's formulation of its necessity. However, it may benefit us to briefly follow one line of critical thought in response to Meillassoux's argument.

Absolute Contingency is Non-Transcendent

Hägglund remains skeptical about the necessity of contingency insofar as there remains a 'virtual power' that is non-material. Despite acknowledging that "Meillassoux tries to distinguish his notion of irruption ex nihilo from the theological notion of creation ex nihilo, by maintaining that the former does not invoke any transcendence that would exceed rational comprehension but rather proceeds from the virtual power of contingency," Hägglund sees such virtual power in direct conflict with science (now an epistemologically well-founded, or restored, discourse).[24] This is precisely because the

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[22] see Slavoj Žižek and Ben Woodard, "Interview," in *The Speculative Turn: Continental Realism and Materialism*, ed. Levi Bryant et al. (Melbourne: re.press, 2011), 406-415.

[23] Johnston, "Hume's Revenge," 96.

[24] Hägglund, "Radical Atheist Materialism," 122.

contingency of oscillation between being and being-other is Meillassoux's base condition for materiality. This may seem absurd, if following Hägglund we merely consider the materiality of life from the perspective of evolutionary biology, whereby "life furnished with sensibility does not emerge directly from inanimate matter but evolves according to complex processes."[25] But if we skip down a few levels, quantum physics provides us with a different story of material existence, one that presupposes any consideration of evolutionary processes.

Space is not empty; "what we perceive as empty space is in reality a powerful medium whose activity molds the world."[26] In further detailing the non-emptiness of space, Frank Wilczek has described how Richard Feynman "lost confidence in his program of emptying space when he found that… the electromagnetic field gets modified by its interaction with a spontaneous fluctuation in the electron field—or, in other words, by its interaction with a virtual electron-positron pair…. The virtual pair is a consequence of spontaneous activity in the electron field. It can occur anywhere. And wherever it occurs, the electromagnetic field can sense it."[27] Here spontaneous activity appears as nothing other than a zero-level chaos, the reflection of pure contingency. This depiction concerns the ephemerality of virtual particles, or entities that do not directly appear but whose effects disturb the context of appearance. However, regarding real, material particles the same contingency of existence seems to hold. Condensates, such as "the space filling mist of quarks and antiquarks," burst forth in existence when we try to empty out space; they form "because perfectly empty space is

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[25] Ibid.

[26] Frank Wilczek, *The Lightness of Being* (New York: Basic Books, 2008), 73.

[27] Ibid., 89.

unstable."[28] Wilczek formulates the following quantum reaction: [nothing] → quark + antiquark + energy.

Quantum physics reflects the necessity of contingent *becoming* regarding the *being* of both material and virtual forms. Such reality constitutes the building blocks that maintain the higher order complexities of chemical, biological, and ultimately social being. Therefore, we should readdress Hägglund's criticism that the results of Meillassoux's philosophic endeavor are incompatible with science, at least in consideration of being and void (empty space, or a pure nothingness).[29]

Skipping over (for now) the 'hard problem', which Francisco Varela contends is "a logical bootstrap, a loop: a network produces entities that create a boundary which constrains the network that produces the boundary,"[30] the necessity of contingency is no less operative in the domain of biological, and subsequent, socio-cultural existence. Biological reproduction and the conditions for natural selection (and hence evolution) could go wrong (be different) at any time for no reason whatsoever. In fact, isn't this precisely what mutation is, whether adaptive or maladaptive? Similarly, social interactions and even systems that aim to codify such interactions (including those that condition musical experience!) *are subject to change*, to being made radically different. No transcendent 'virtual power' is operative; the notion of radical ontological contingency is an entirely immanent condition of being, of being any- (virtual or material) thing at all.

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[28] Ibid., 90.

[29] A further scientific discrepancy lingers, namely the collapse of the wave function, but we will return to this later in the Chapter.

[30] Francisco Varela, "The Emergent Self," in *The Third Culture: Beyond the Scientific Revolution,* ed. John Brockman (New York: Simon & Schuster, 1996), 212.

Interlude: Žižek's Sibelius

It is now for us to consider radical ontological contingency as it appears through Music. We must immediately move beyond representational considerations, for representation is always the re-presentation of some-Thing else and hence dependent on knowledge of the signifier-signified relation. Representation is an epistemological consideration, and subject to such limitation as outlined in Chapter 2. We must direct our efforts at the facticity of appearance itself, rather than trying to interpret meaning behind such appearance (or use rhetoric as leverage against the multiplicity of possible interpretations). This much we know in consideration of contingency as manifest in quantum physics. To ask what the bursting forth of quark-antiquark pairs means is absurd; their existence *is nothing other than the contingency with which they come and go*. However, to question the structures that yield and support such appearance and the variational forms that such appearance may take is not absurd; the structure and form of appearance does not mitigate the contingency with which any given thing appears. In referring to *structure* as it appears through Music, we mean the relations between sonic materials out of time. Meanwhile, 'form' refers to variations in the appearance of structure(s) across time. The interpenetration of structure and form thus constitutes our notion of musical space, a Grid (following quantum physics) comprising the multiplicity of temporal and a-temporal axes. Perhaps we may consider, therefore, the behavior of such musical space when emptied, when cleared out of all meaningful content. To quote the poet A.R. Ammons, in consideration of formal structures we may pursue "the

finework of frailty, the mishmash house of the coming and going, creation's fringes, the

eddies and curlicues."[31] A post-finitude, speculative music must take similar aim.

Musical abstraction is thus rehabilitated as our compositional priority, as a

clearing away of things or an emptying out of space, in order to observe more keenly

that which may or may not appear. Žižek, in a typically counter-intuitive move, has

initiated a theoretical discussion along these lines by reconsidering Sibelius, particularly

his Fourth Symphony.[32]

Sibelius marks a point of incompatible perspectives in consideration of the

modernist 'event' (following Badiou's notion of Event, as that which breaks from the

known configuration of Being). Schoenberg is, of course, the premier figure of the

modernist event, and therefore polarizing, still to this day. However, Schoenberg's

embrace of atonality doesn't just reframe our understanding of Schoenberg, but

moreover, reframes the entire territory of composition of which Schoenberg is part. As

Žižek aptly describes, after Schoenberg:

> it was (and is), of course, possible to go on composing in the traditional
> tonal way, but the new tonal music has lost its innocence, since it is
> already "mediated" by the atonal break and thus functions as its negation.
> This is why there is an irreducible element of kitsch in twentieth-century
> tonal composers such as Rachmaninov—something of a nostalgic
> clinging to the past, something fake, like the adult who tries to keep alive
> the naïve child within.[33]

Historically contemporaneous with Schoenberg's atonal revolution (and World War I),

the shift from Sibelius' pre-war Fourth Symphony to post-war (counting his successive

revisions) Fifth Symphony is, therefore, particularly fascinating. While Rachmaninov

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[31] A.R. Ammons, "An Improvisation for Angular Momentum," *Poetry* (June 1992), 2-3.

[32] Žižek, *Less Than Nothing,* 603.

[33] Ibid., 193.

represents twentieth century kitsch, simply because he continued to compose 'as if'

modernist imperatives never happened (did not exist), Sibelius' cannot be accused of

ignorance. As James Hepokoski remarks, "the Fifth's centrality to the Sibelius oeuvre

invites us to ponder difficult historical problems. Chief among them is that of a notable,

engagè composer facing, but then apparently renouncing, the advanced 'state of the

musical material' of his time. By the period of the Fifth Symphony this predominately

included the aggressive 'emancipation of the dissonance'."[34]

   The two irreconcilable perspectives regarding Sibelius are best reflected in the

critical rhetoric of Adorno and Olin Downes (music critic for the New York Times from

1924 to 1955). As Alex Ross states:

> Downes believed that classical music should appeal not just to elites but
> to common people, and from the bully pulpit of the Times he loudly
> condemned the obscurantism of modern music—in particular, the
> artificiality, capriciousness, and snobbery he perceived in the music of
> Stravinsky. Sibelius was different; he was 'the last of the heroes,' 'a new
> prophet,' who would rescue music from cerebral modernism.[35]

Adorno counters this (almost desperate) praise in an abjectly dismissive way by saying

the following:

> the work of Sibelius is not only incredibly overrated, but it fundamentally
> lacks any good qualities. If Sibelius's music is good music, then all the
> categories by which musical standards can be measured—standards
> which reach from a master like Bach to most advanced composers like
> Schoenberg—must be completely abolished.[36]

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[34] James Hepokoski, *Sibelius: Symphony No. 5,* Cambridge Music Handbooks (Cambridge: Cambridge University Press, 1993) 2.

[35] Alex Ross, *The Rest is Noise: Listening to the Twentieth Century* (New York: Farrar, Straus and Giroux, 2007), 136.

[36] as quoted in Alex Ross, *The Rest is Noise*, 137.

So what is at stake in consideration of Sibelius' relation to the arrival of modernism in Music is nothing more than the entire apparatus of knowledge about Music. Žižek is perfectly primed to envisage such abolishment by revealing a (non-transcendent) Hegelian reconciliation between the positions. Žižek argues that the opposition (between Adorno and Downes) is not part of a larger problem or discourse, one that is beyond the limited perspective of each individual, but rather, the opposition is internal to Sibelius' own compositional prerogatives, in what his propositional music *is.*

Žižek takes aim at the third and fourth movements of the Fourth Symphony, specifically their differential treatment of thematic material, arguing that across the movements we incur the unfolding of two different kinds of 'failure'. In the third movement, this failure proceeds in Romantic fashion, it "displays a painful effort to extract the main melody, an effort which twice comes to the very verge of succeeding, yet ultimately fails."[37] In opposition to Classicism, viz. Mozart, where the thematic material is explicitly given as though it were arriving from above fully formed, the third movement:

> dramatizes an attempt to build, note by note, a solemn six-bar theme of funerary character; the first attempt falters after two bars, the second after five, the third after four, the fourth after three. The fifth attempt proceeds with vigor but seems to go on too long, sprawling through seven bars without coming to a logical conclusion. Finally, with an audible grinding of teeth, the full orchestra plays the theme in a richly harmonized guise. Then uncertainty steals back in.[38]

The theme is, in each instance, undercut and disrupted. Thus we have the image of thwarted representational content—blocked transcendence, escape, fulfillment, etc. The

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[37] Žižek, *Less Than Nothing*, 606.

[38] Alex Ross, *The Rest is Noise,* 131.

crucial point being that the movement's subject, therefore, cannot be about any

suggested arrival or *telos*, but rather, *can be nothing but the representational as such*

being thwarted.

In the fourth movement, we incur a wholly different kind of failure. The movement

begins with the presentation of thematic material which suggests itself as amenable to

some triumphant treatment across the finale. Instead, "the finale thins out as it goes

along, as if random pages of the orchestral parts have blown off the music stands. This

is music facing extinction."[39] Žižek, countering Burnett James' account of the finale's

psychological "cry of infinite loneliness," describes the fourth movement as follows:

> what effectively happens in the last part of the finale of Sibelius' fourth is
> something much more uncanny than the standard expressionist rendering
> of the utterly isolated individual's scream heard by no one in the void of an
> empty wasteland. We rather witness a kind of musical cancer or virus
> triggering the gradual progressive decomposition of the very musical
> texture—as if the very foundation, the "stuff" of (musical) reality, loses its
> consistency; as if, to use another poetic metaphor, the world we live in is
> gradually losing its color, its depth, its definite shape, its most fundamental
> ontological consistency.[40]

The music itself falls apart; its dissolution is its only content, and thus points towards no

hidden or transcendent signified.

Between the two failures, those of the third and fourth movements, there is

nothing but the abyss of our (and what we may perceive to be Sibelius') modernist

gaze. In the gap opened up between the movements, we identify the formal structure of

each movement as the work's only content; the musical subject is nothing but its own

capacity to veer towards non-existence. Thus Adorno's and Downe's diametrical

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[39] Ibid.

[40] Žižek, *Less Than Nothing*, 607.

106

opposition regarding Sibelius' historical standing is reconciled when we view the opposition as itself being the content. Or to say it differently, Adorno's difference with Downes is Sibelius' difference with himself, the structural encoding of his own incomplete modernist attempts. Žižek maintains that this dissociation continued in search of an impossible/ideal composition, "the one which would 'sublate' the tension between 'absolute music' (symphonies) and 'programatic music' (tone poems)," and resulted in the Seventh Symphony appearing as a representational 'tone poem' and Tapiola appearing as an abstract spiritual journey.[41] Once one veers toward its other, the synthesis Sibelius sought is revealed as "a priori impossible, the failure is structural, and Sibelius, to retain his artistic integrity, had to remain silent."[42] Thus the Eighth Symphony never appears. Oscillation between two irreconcilable prerogatives (abstract sonic forms versus representational content) was ultimately unsustainable and Sibelius barely composed for the last thirty years of his life. Such structural failure is itself the modernist core of Sibelius' no-part of modernism.

Immediately, Sibelius' Fifth symphony makes some sense, in its regressive move towards reifying notions of spiritual transcendence through tonality; the Fifth provides a counterweight to the incomplete modernist yearning evident in the Fourth. As the 1920s approached, with Schoenberg and Stravinsky on the ascent (planting the seeds of modernist and postmodernist prerogatives across the 20th century), Sibelius remained the consummate outsider. Hepokoski remarks, "for each composer who survived into the second decade of the century, the withdrawal phase commonly involved a reflection

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[41] Ibid., 605.

[42] Ibid.

on the nature of a grand but rapidly obsolescing musical language. We are thus presented with a charged dialectic of figure and ground that ought not to be resolved too hastily."[43] Sibelius, however, more than Strauss, Elgar, or others, saw the "obsolescing musical language" and proposed something unique: that in its stead we incur nothing more than the appearance of obsolescing, the very process of musical convention being stripped away. And then in the Fifth, the Real disappearance of tonality is shown to have not disappeared in reality, in how we remain able to listen tonally, and in fact project tonality upon the objects of atonality.

Žižek is, of course, not alone here in his rehabilitation of Sibelius' distinct brand of modernism. Many more contemporary modernist composers, such as Brian Ferneyhough, Tristain Murail, Gèrard Grisey, Peter Maxwell Davies, and Kaija Saariaho, cite Sibelius as being a significant influence.[44] However, one composer's endorsement of Sibelius' is particularly interesting. In discussing the singularity of Morton Feldman's compositional style, Alex Ross finds Sibelius to be a suitable point of reference, affirming that Feldman too stood "apart from his time. No twentieth-century composer, with the possible exception of Sibelius in his last years, achieved such imperturbable separateness; and no wonder Feldman fell in love with Sibelius's Fourth and Fifth symphonies."[45] Ross thus completes a relation he had set up earlier when closing his discussion on Sibelius, wherein he provided the following Feldman anecdote: "in 1984, Feldman gave a lecture at the relentlessly up-to-date Summer Courses for New Music in Darmstadt, Germany. 'The people who you think are radicals

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[43] Hepokoski, *Sibelius*, 8.

[44] Alex Ross, *The Rest is Noise,* 139.

[45] Ibid., 367.

might really be conservatives,' Feldman said on that occasion. 'The people who you think are conservative might really be radical.' And he began to hum the Sibelius Fifth."[46]

In light of the ontological disintegration that unfolds across the finale of Sibelius' Fourth Symphony, Feldman's support of Sibelius is perhaps understandable as more than mere personal affinity. The connection between the two resides in each marking a distinction between the ontology of sonic objects (or, materials) and the virtuality of some representational 'beyond' (content). Is this not the precise distinction underlying Julian Anderson's proposition that "the whole of Feldman's *Coptic Light* could be seen as an illustration of Hepokoski's definition of rotational forms in Sibelius as a set of varied restatements around a central material, the last of which links up with the harmonic area of the opening"?[47] Again, the manipulations enacted upon the materials are themselves the only content; it is variation for variation's sake. Music, its very pretense to represent anything (expressive or impressive), has been subtracted. Wilfrid Meller describes Feldman thusly: "music seems to have vanished almost to the point of extinction; yet the little that is left is, like all Feldman's work, of exquisite musicality; and it certainly presents the American obsession with emptiness completely absolved from fear."[48] Here, the distinction between 'emptiness' and 'fear' is nothing other than music's ontological priority over epistemological considerations regarding some representational content. Like sex divorced from its procreative function, the direct manipulation of

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[46] Ibid., 139-140.

[47] Julian Anderson, "Sibelius and Contemporary Music," in *The Cambridge Companion to Sibelius,* ed. Daniel M. Grimley, Cambridge Companions to Music (Cambridge: Cambridge University Press), 216.

[48] as quoted in Alex Ross, *The Rest is Noise,* 365.

sound, cut off from any representational content, is "posited as an end-in-itself, caught

in the vicious cycle of repetitive insistence which cannot ever be fully satisfied."[49] Žižek

identifies this distinction as a difference between place and term, a difference that:

> opens up the possibility (or, rather, structural necessity) of an empty place
> lacking any element to fill it in; for this place to occur, it must itself be
> "marked" as empty, in other words, within it, form and content are
> mediated. This place is not simply empty or without content, emptiness is
> its content (or, to put it in structuralist jargon, absence—of content—is
> itself present in it). We thus get two emptinesses: direct pre-symbolic
> emptiness and emptiness marked as such within the symbolic space; or,
> in terms of music, we get two silences, direct silence and marked silence,
> a silence heard as such: the "sound of silence." In the old days of the
> jukebox, some diners offered a simple solution for those guests who
> preferred silence to the noise music: the machine would contain a disc
> with nothing recorded on it lasting the length of an average song, so the
> customer who wanted peace just had to slip in the appropriate coins and
> select the silent disc—a nice structural mechanism for "marking" silence
> itself as present; after the empty disc was selected, not only was there no
> longer music playing, but, in a way, silence itself was playing.[50]

Thus both Feldman and his predecessor, Sibelius (of the Fourth Symphony), must be

understood as providing a direct engagement with the immanent presence of place

itself, as emptied out, as cleared of all substantive and functional content beyond its

being empty. What results is a place that is unstable, akin to a quantum vacuum—a

silence filled with nothing but the mediation of material contingency, of sound's being as

always possibly being-other. Accordingly, we must ask to define this "marked" empty

place, "an object whose status is purely virtual, with no positive consistency of its own,

only a positivization of a lack in the symbolic order."[51] We may call it music—a term

which now describes the facticity of an empty appearing rather than a term the

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[49] Žižek, *Less Than Nothing*, 602.

[50] Ibid.

[51] Ibid., 598.

significance of which precedes any appearance. It is what emerges in the vacuum as the object-cause of our sonorous desire, the Lacanian objet a, Meller's identification of Feldman's persistently "exquisite musicality," in the face of music's extinction.

The Cage-Event

Of course, there's an elephant in the room; his name is John Cage and it is imperative that we turn our attention in his direction. The 'silent' jukebox record that appears in Žižek's elucidation of the Lacanian *object a* makes an appearance amid Cage's personal papers; he saved a *New York Post* article from January 16, 1952, which describes the juke-box fueled Student Union at the University of Detroit: "the place was swinging way out to one of those new sides called 'Three minutes of Silence.' That's it—silence. The student puts his dime in and he takes his choice, either the 104 jump records on that big flashy juke box or on one of the three that play absolutely nothing, nothing but silence."[52] Of course Cage composed *4'33"* in 1952, but his ideas about music and silence appear to have emerged even earlier, around 1946. Cage's compositional work and thought has completely reframed any consideration of a musical silence, as being, in fact, full of sound, and thus has forced us to consider a host of direct engagements between music and the philosophical treatment of its (empty) subject.

While the amount of scholarly material on Cage is daunting (not to mention all he left us directly), perhaps we may re-approach some questions posed by the Cage-Event by seeking recourse in our newfound consideration of absolute, necessary contingency. There are three somewhat diffuse and overlapping points of consideration regarding

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[52] as quoted in Kyle Gann, *No Such Thing as Silence: John Cage's 4'33"* (New Haven: Yale University Press, 2010), *133.*

Cage's importance relative to the discussion at hand. Each is perhaps best expressed as a dialectic: first, the tension between any propositional music appearing as mere sounds and not all mere sounds appearing musical; second, the leveraging of empiricism against transcendental idealism; and third, the distinction between chance and contingency (a discussion we will reserve for Chapter 5). We will now seek to uncover the priority of the first two.

It is my contention that any discussion of Cage, regarding both his thought and work, is best initiated by interrogating a particular instance of such output rather than by reaching for example along the way. Or, perhaps even better, we might initiate a discussion by placing particular instances of his thought and work in dialectical relation (tension) with each other. Following our above-stated aim, to reassess the Cage-Event in consideration of developing a theory of a music that is ontologically incomplete, we may target the minimal difference between Cage's thought-composition *Silent Prayer* and his subsequent actual composition *4'33"* as our point of entry.

Silent Prayer's Difference

In a lecture delivered at Vassar College on February 28, 1948, Cage shared for the first time his intention "to compose a piece of uninterrupted silence and sell it to the Muzak Co. It will be 3 or 4½ minutes long—these being the standard lengths of 'canned' music, and its title will be 'Silent Prayer.' It will open with a single idea which I will attempt to make as seductive as the color and shape or fragrance of a flower. The ending will approach imperceptibility."[53] Beyond simply stating his intention to confront head-on the spurious notion that silence is antithetical to Music, Cage is generous here.

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[53] as quoted in Gann, *No Such Thing as Silence, 126.*

He outlines what a 'silent' listening experience might be like by describing its imagined

subjective representation, its flower-like opening and imperceptible close. His

description is deemed by Kyle Gann to be confusing, and thus distinguishes *Silent*

Prayer from *4'33"*, for "how can a silent piece open with any idea at all?"[54] To follow

Gann, and uphold that such a description is inherently confusing, would merely confirm

that any difference between *Silent Prayer* and *4'33"* is a purely epistemological

difference—a gap in our knowledge regarding silence; our perspective on the

hypothetical (potentially idealized) silence of *Silent Prayer* (1948) is seen through the

lens of the more 'advanced' notion of impossible silence on display in *4'33"* (1952). The

epistemological shift occurs, of course, as a result of Cage's visit (sometime around

1950) to the anechoic chamber at Harvard University, which was "a room insulated with

acoustically absorptive material to suppress echoes and outside noises."[55] Kenneth

Silverman describes the impression it left on Cage in the following way:

> He often told the story of what happened to him in that theoretically silent
> room. He heard two sounds, one high and one low. He asked the sound
> engineer why, since the chamber absorbed sounds, he hard heard any.
> As Cage recounted the puzzling episode, the engineer replied: "The high
> one was your nervous system in operation. The low one was your blood in
> circulation." In the "Lecture on Something" he gave at the Artists Club,
> Cage summed up axiomatically what he had learned at Harvard:
>
>   no silence exists   that is not pregnant
>
> with sound[56]

Cage conceived of *Silent Prayer* before he considered silence as an impossibility.

Accordingly, our confusion regarding Cage's above description of the hypothetical Silent

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[54] Ibid.

[55] Kenneth Silverman, *Begin Again: A Biography of John Cage* (New York: Alfred A. Knopf, 2010), 117.

[56] Ibid. The odd formatting reflects how Silverman formatted Cage's text.

Prayer must reflect Cage's own confusion on the true nature of silence in 1948, a confusion that he sets straight by 1952. Therefore, while it is an interesting side-note, *Silent Prayer* is dispatched as a mere cursory prefiguration of the greatness to follow.

In fact, this is precisely how Gann proceeds. Citing William Brooks, Gann aims to show how *Silent Prayer* was an awkward first stab at the compositional treatment of silence, an ill-informed conjecture that was necessarily rectified in consideration of *4'33"* and its historical success (infamy):

> As Brooks says, "*Silent Prayer* was problematic on two counts. First, the 'silence' would certainly not be silent. Noises would intrude; the experience would be imperfect; the listener would be distracted. And second, like any expressive music, it might not actually convey Cage's intentions; it might be more likely to amuse or irritate than to sober and quiet the mind. The question was: was it the first failure that gave rise to the second? If one could truly experience 'silence,' would the mind be quieted?"[10] Cage never performed *Silent Prayer*. The piece does not exist; its description is self-contradictory. In order to reach *4'33"* from Silent Prayer, Cage needed to go through experiences that would lead from attempting to listen to nothing to redefining silence as being not nothing, but something.[57]

Cage's description of *Silent Prayer* is only self-contradictory if we maintain that literal 'silence' is what a listener should perceive, which is precisely where Gann (and Brooks) miss the mark. What happens if, instead, we take Cage at face value? To return to his words, he says, "[the piece] will open with a single idea which I will attempt to make as seductive as… a flower." He is subjectively representing the *idea-of-silence* rather than silence directly. This distinction is crucial, because it reveals that the *actual silence* cannot be under consideration. Rather, the *facticity* of its notional appearance is under consideration. Cage is imaginatively describing (because, following Meillassoux it cannot be deduced) the fact that we can think silence. There is nothing contradictory

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[57] Gann, *No Such Thing as Silence,* 127.

about Cage's description. We therefore cannot simply invalidate the compositional merit of *Silent Prayer* on the basis that Cage's knowledge shifted regarding the appearance of actual silence.

Rather than being a reflection of Cage's confusion, the description of *Silent Prayer's* effect is a window into how Cage's movement from *Silent Prayer* to *4'33"* is not merely epistemological; it marks an ontological difference concerning the object itself. We must now ask: what is at stake in this difference between the idea-of-silence and actual silence, as it concerns both *Silent Prayer* and *4'33"*? To ask such a question involves reconsidering *Silent Prayer* as a path not taken, one that is (perhaps) no-longer invalidated in light of the necessity with which *4'33"* appears.

The performance context of *4'33"*

To address the ontological difference between the two works, let us begin by considering the context in which each is presented. Regarding silence actually being something in *4'33"*, an important distinction must be made immediately, one that is illustrative of the 'positivization' at the core of *4'33"*: the context of its premier was a singular occasion necessarily different from subsequent (now conventional) concert hall performances.

The premier performance of *4'33"* took place in the late evening of August 29, 1952 in the Maverick Concert Hall near Woodstock, New York. The hall itself "opens in the back through four double doors onto additional rows of wooden benches in the open air. There are about as many seats outside as in."[58] This particular hall is a remarkable place for a propositional music to become revealed as nothing but incidental sounds.

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[58] Gann, *No Such Thing as Silence*, 1.

115

Opening the concert hall to the incidental sounds of nature ensures that there will be a filling in of material—there will be clear, salient objects of perception to help positivize the lack of non-incidental sound. Recounting the night of the premier, Cage said: "You could hear the wind stirring outside during the first movement. During the second, raindrops began pattering the roof, and during the third the people themselves made all kinds of interesting sounds as they talked or walked out."[59] In this situation, Cage ensured the pregnancy of silence.

While interpretations of the piece range from its being "deliberate provocation" to a Zen-inspired artistic prayer (certainly not unwarranted in light of the proposed title, *Silent Prayer*, four years earlier when he first proposed a 'silent' intervention), "to Cage it seemed at least from what he wrote about it, to have been an act of framing, of enclosing environmental and unintended sounds in a moment of attention in order to open the mind to the fact that all sounds are music."[60] Cage meant to dissolve a distinction of 'kind', an ontological distinction between unintended (incidental) sound and a propositional music, and to show that any mere sound (intended or not), if listened to, equals a propositional music; they are an identity.

The identity (attending to mere sound equals a propositional music) cannot, however, be objectively or universally maintained. We can only describe the facticity with which mere sounds may appear as a propositional music *for us* as individuals. Herein lies the difference between the first Maverick Hall performance of *4'33"* (or the first performance for any given listener) and subsequent performances: in the first, the

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[59] Ibid., 4.

[60] Gann, *No Such Thing as Silence*, 10-11.

phenomenal presence of mere sound *may or may not* become a propositional music for any given individual who chooses to listen and who projects a subjective intentionality onto the mere sound. As a result, the individual no longer hears mere sound, but rather, she listens to reflexive sound and confronts her own ability to decide upon a propositional music. Subsequent performances proceed differently: the relation between mere sound and a propositional music appear inverted, becoming a propositional music in search of mere sound. Or in other words, for a first performance, the identity (that attending to mere sound equals a propositional music) is decided upon (discovered?) by considering the facticity of incidental sound's insistent appearance within the framed impossibility of actual silence. Whereas for subsequent performances, the propositional notion of attending to mere sound itself presupposes any aural appearance.[61]

We should acknowledge that *4'33"* is more than just those mere sounds that happen to occur across any given performance; *4'33"* is also the necessity with which the sounds that occur are a propositional music. Accordingly, *4'33"* appears as a necessary extension of our *a priori* understanding of Music. Douglas Kahn elucidates such necessity by drawing a distinction between the impossibility of actual silence and the sociality of "silencing":

> in every performance I've attended the silence has been broken by the audience and become[s] ironically noisy.
>
> It should be noted that each performance was held in a concert setting, where any muttering or clearing one's throat, let alone heckling, was a breach of decorum. Thus, there was already in place in these settings, as in other settings for Western art music, a culturally specific

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[61] While there have undoubtedly been other performances of *4'33"* in (quasi-)outdoor settings, my point is to distinguish between any given listener's first experience of the work relative to subsequent performances, regardless of the setting. That Cage chose the Maverick Hall for the first performance does not ruin the work for all future listeners. However, that the idea of the work may precede its immanent taking of place is an inversion that should not be overlooked.

mandate to be silent, a mandate regulating the behavior that precedes and accompanies musical performance. As with prayer, which has not always been silent, concertgoers were at one time more boisterous; this association was not lost on Luigi Russolo, who remarked on "the cretinous religious emotion of the Buddha-like listeners, drunk with repeating for the thousandth time their more or less acquired and snobbish ecstasy." *4'33"*, by tacitly instructing the performer to remain quiet in all respects, muted the site of centralized and privileged utterance, disrupted the unspoken audience code to remain unspoken, transposed the performance onto the audience members both in their utterances and in the acts of shifting perception toward other sounds, and legitimated bad behavior that in any number of other settings (including musical ones) would have been perfectly acceptable. *4'33"* achieved this involution through the act of silencing the performer. That is, Cagean silence followed and was dependent on a silencing. Indeed, it can also be understood that he extended the decorum of silencing by extending the silence imposed on the audience to the performer, asking the audience to continue to be obedient listeners and not to engage in the utterances that would distract them from shifting their perception toward other sounds. Extending the musical silencing, then, set into motion the process by which the realm of musical sounds would itself be extended.[62]

As Brandon LaBelle claims, Kahn sees this tension between silence and social 'silencing' as the work's core contradiction: "while 'letting sounds be themselves' Cage paradoxically relocates them inside a rubric of preferential silence and subsequently refers back to a musical language governed by taste and aesthetics far from the social, thereby falling short if not contradicting his intended ambition."[63] LaBelle acknowledges this contradiction, but opts to simply reframe it as:

> an extremely productive lens through which a work like *4'33"* gains momentum. It seems important here to underscore the very contextual situation of *4'33"*, for the work was self-consciously 'written' so as to converse with music through its performance in a concert setting. That is to say, the work *aims* for music, as cultural practice and as context.[64]

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[62] Douglas Kahn, *Noise, Water, Meat: A History of Sound in the Arts* (Cambridge, MA: The MIT Press, 1999),165-166.

[63] Brandon LaBelle, *Background Noise: Perspectives on Sound Art* (New York: Continuum, 2006), 14-15.

[64] Ibid., 15.

If we shift our understanding and acknowledge that Music is an object of consideration that presupposes any listening, *4'33"* is no longer contradictory. In other words, *4'33"* is only self-contradictory if the object of consideration is 'sounds themselves' (mere sound). Once we reveal that the true object of *4'33"* is Music itself (as being comprised of mere sound), the contradiction becomes a productive paradox. Again, we incur Žižek's notion of parallax, whereby a shift in epistemological perspective is concomitant with an ontological shift in the thing itself. Not only can mere sounds become a propositional music (by attending to the impossibility of hearing silence) and thus be listened to in relation to the larger discourses of Music, but Music itself becomes nothing but one's attention to mere sound.

If we follow LaBelle, then we must submit ourselves to the full weight of the consequences that follow; we must acknowledge the capacity of subsequent performances (and interpretations) to change the object of perception that arises in consideration of *4'33"* from silence proper to 'silencing' itself. If the notion of Music appears *a priori,* presupposing any attempt at actual silence, then such an inversion forces all mere sounds that appear for any given individual across those four minutes and thirty-three seconds to be listened to, as they provide the material upon which one projects his or her own Musical intention. Accordingly, any appearance of incidental sound simply reaffirms a distinctly Cagean propositional music, since it was he who instituted the Musical silencing. Despite LaBelle's point, Kahn appears quite aware of Music being the focus of *4'33"*: "[Cage] not only *filled music up*; he left no sonorous (or potentially sonorous) place outside music and left no more means to materially

regenerate music. He opened music up into an emancipatory endgame."[65] The identity between mere sound and a propositional music is thus revealed as a paradox: an intentional Music of unintended (incidental) sounds.

The paradox of *4'33,* as outlined above, emerges as a result of Cage's treatment of the contextualization cues of a conventional Musical performance. The notion of attending a concert where non-incidental sound will occur serves as an 'empty' frame. Furthermore, there is a score for *4'33"*, one that was by all accounts meticulously composed according to chance procedures (the concatenation of indeterminate durations of silence); it is in three movements and it is to be performed in a serious manner as a work for solo piano (the stalwart instrument of Western classical Music). The appearance of any sound is pre-conditioned by the contextualization cues (both implicit and explicit) that demand that Music is always-already operative. Therefore, the contingency with which any sound is heard and listened to is secondary to the notion that presupposes hearing or listening: Music is not just revealed as sound, but any sound fills in a pre-existing, empty Music. The frame of *4'33"* retains priority over that which may appear in the frame. 4'33" is the example of Music essentialism, par excellence.

Rethinking 'sounds themselves'

Following Badiou, we now recognize the Cage-Event: Music is just mere sounds—as Cage often said, 'sounds themselves'. It is important to clarify what Cage means by saying this. 'Sounds themselves' does not mean vibrational sound as the Kantian *Ding an Sich*, its inaccessible noumenal notion. Rather, Cage means vibrational

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[65] Kahn, *Noise, Water, Meat,* 164.

sound's obverse: the irreducible facticity of its phenomenal presence *for us*. The facticity

of "sounds themselves" is only describable. However, that which is describable remains

subject to ontological determination. For Badiou, ontological determination means that

sounds are mathematizable (does this notion not underly taxonomic prerogatives in

Cage's compositions, such as *Williams Mix*, much less the empiricism of chance

operations?). But, in consideration of *4'33"*, what about the notion of Music

presupposing any such determination? What about the frame that enframes the frame

in reality? Considering 4'33", once we recognize the priority of the frame of concert hall

performance (the codes that dictate that the audience must listen) over its contents,

Badiou reminds us that we must confront:

> the vast question of that which subtracts itself from ontological
> determination, the question of that which is not being qua being. For the
> law of subtraction is implacable: if real ontology is set out as mathematics
> by eluding the norm of the One, it is also necessary, lest one allow this
> norm to re-establish itself at a global level, that there be a point at which
> the ontological (i.e. mathematical) field is de-totalized or caught in an
> impasse.[66]

Badiou calls this point the Event. Thus, we ask, "What subtracts the sheer 'what

happens' from the general determinations of 'what is'?"[67] Or, to couch the same

question in more appropriate terms regarding Cage's *4'33"*, what subtracts the sheer

necessity of Music from the general determinations of what sounds there are? Simply

put, everything hinges on listening itself, the frame of intention in which the appearance

of mere sound appears as Music.

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[66] Alain Badiou, *Theoretical Writings*, ed. and trans. Ray Brassier and Alberto Toscano (London: Continuum, 2004), 98.

[67] Ibid.

Listening is positioned as the decisive cut between the facticity of mere sound's

appearance and its sounding musical. In conversation with Daniel Charles, Cage

provides us with a phenomenology of listening under the guise of 'stellar constellations':

> I can accept the relationship between a diversity of elements, as we do
> when we look at the stars, discover a group of stars and baptize it 'The Big
> Bear'. Then I make an object out of it. I am no longer dealing with the
> entity itself, seen as having elements or separate parts, I have before me
> a fixed object which I may cause to vary precisely because I know in
> advance that I will find it identical to itself. From this point of view, I am
> practicing what Schoenberg said: variation is a form, an extreme case of
> repetition. But you can also see how it is possible for me to get out of this
> circle of variation and repetition. By returning to reality, to that particular
> entity, to that constellation which is not yet completely a constellation. It is
> not yet an object! […] What makes the constellation into an object is the
> relationship I impose on its components.[68]

Listening is presented as nothing other than this process of traversing the two poles,

between constellation (Music) and its constituent stars (mere sounds). To couch the

logic on display in the above excerpt in theoretical terms, we begin (again) with silence:

if "no silence exists that is not pregnant with sound," then that is to say, there is nothing

but mere sound, or further, Music is nothing but mere sound that one listens to,

attending to the facticity of its phenomenal appearance. Thus, the object of Music is a

purely illusory object, an object that is nothing but the result of the subject's own

(repetitive) self-positing, à la Schoenberg. In the midst of such illusory Musical

appearances/variations, Cage aims to accept the pure facticity of mere sound's

appearance, stars without the intentionality of shape. Here is where Cage resides (at

least compositionally) and wherefrom he ceases to proceed.[69] However, we must

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[68] John Cage and Daniel Charles, *For the Birds: John Cage in Conversation with Daniel Charles*, ed. Tom Gora and John Cage (London: Marion Boyars, 1981), 79.

[69] see ibid., 93. In an exchange with Daniel Charles on the tension between Being and Nothingness Cage summarizes his understanding of a Buckminster Fuller text, in the following way: "We believe that we can slip as in a continuity from one sound to the next, from one thought to the next. In reality, we fall down

continue the line of questioning he initiated: to say that there is nothing but our capacity

to *listen* to the insistent presence of mere sound is, first, to affirm that Music is wholly

insubstantial, a covering up of a pure void; Music is nothing but the appearance of *living*

sound. Second (and this is the crucial step), we must concede that mere sound is not all

there is. The sound-object itself retains the capacity to *be* different. The terms we have

been using to describe different notions of sound reflect that neither sound nor the

notion of Music is ontologically complete. As a result, we must seriously question

Cage's above stated prerogative to "return to reality." The reality of mere sound's

appearance is not reality as such, only partial reality. We cannot seek recourse in

"returning to reality" precisely because reality itself is never wholly itself—sound is non-

All. Sound itself, its noumenal notion, whether that be vibrational sound, incidental

sound, or even non-incidental sound, is wrapped up in the listener's 'gaze', its very

decidability, in the same way that Cage identifies the constellation as "not yet

completely a constellation ... not yet an object." There is an indiscernible nothingness

that intervenes, forcing the issue that what kind of sound one hears or listens to must be

decided upon. As a result, Cage's logical mis-step is to overlook how the stars (mere

sounds) themselves are of an incomplete reality, before he ever projects their

constellation. The incompleteness of reality itself is the ontological consequence of

reflexivity: "the reality I see is never 'whole' – not because a large part of it eludes me,

but because it contains a stain, a blind spot, which indicates my inclusion in it."[70] Thus

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and we don't even realize it! We live, but living means crossing through the world of *relationships* or representations. Yet, we never see ourselves in the act of crossing that world!" So Cage was clearly aware of the gaze itself getting caught up in what the world is. However, this awareness doesn't appear to have folded back on his practice, in consideration of the *a priori* determination of music, or to say it differently, the Musical necessity of Cage's music.

[70] Slavoj Žižek, *The Parallax View* (Cambridge, MA: MIT Press, 2006), 17.

the gaze of the observer/listener gets caught-up in the (sound) object itself, the very fact of its self-presentation.

So how might our consideration of the context of performance regarding the hypothesized *Silent Prayer* help establish a different path for composition and take into account the ontological incompleteness of sonic reality? If, following Kahn's assessment, *4'33"* opened Music up into an emancipatory endgame, then what remains for us to consider? The answer, quite simply, is to open up the ontological consideration of sound to an emancipatory endgame independent of any Musical necessity. If Music is just one's capacity to listen to mere sound, what happens when we subtract the Musical necessity to listen? Could some sounds still be considered in relation to the notion of Music, while other sounds aren't? After *4'33"*, Music is potentially any sound. But we haven't fully explored the inverse. We haven't fully considered how, or under what range of conditions, a mere sound may become listened to as being Musical. It remains for us to ask the following: how can sound removed from the *a priori* consideration of Music become a potential music, a speculative music that arises in the midst of all this incomplete sonic reality? This is *Silent Prayer's* difference, a difference that only emerges retroactively after passing through *4'33"* between Music as mere sound and mere sound appearing Musical. To consider this difference is a properly speculative reformulation of the problematic imposed on us by 4'33". To return to Žižek's clear identification of the speculative position quoted at the beginning of the chapter, "the question is not 'How, if at all, can we pass from appearance to reality?" but "How can something like appearance arise in the midst of reality?"[71] Similarly, referring back to

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[71] Žižek, *Less Than Nothing*, 144-145.

Cage's consideration of constellation, we ask not how can we 'return to reality,' to the stars themselves?, but rather, "how can something like a constellation (Music) arise in the midst of all these stars (mere sounds)?

The appearance of 'living' sound

In light of Meillassoux's project, of grounding the existence of external reality in radical ontological contingency, the above question cannot be dismissed by adopting a transcendental perspective, by qualifying Music and all sound as subjective representations alike, each only appearing *for us* and not *in-itself*. Such a transcendental perspective is, however, exactly what supports the Cagean possibility of music being everywhere, simply because we hear sound everywhere. Cage's adoption of this perspective is clearly on display when he says: "[the world] 'presents itself'; that means that it is not there, existing as an object. The world, the real is not an object. It is a process."[72] Here, he means: the world is the process of its own self-presentation. Thus, "an inanimate being has as much life as a living being. A sound is alive."[73] Such a claim reinforces a transcendental idealism that recalls not only Zen Buddhism, but Fichte, specifically as it relates to Fichte's notion of Anstoss, which Žižek defines as:

> formally homologous to the Lacanian objet a: like a magnetic field, it is the focus of the I's positing activity, the point around which this activity circulates, yet it is in itself entirely insubstantial, since it is created-posited, generated, by the very process which reacts to it and deals with it. It is like the old joke about the conscript who pleaded insanity in order to avoid military service: his "symptom" was to compulsively examine every paper within reach and exclaim, "That's not it!" When examined by the military psychiatrists, he does the same, so the psychiatrists finally gave him a paper confirming his release from military service. The conscript reaches

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[72] Cage, *For the Birds*, 80.

[73] Ibid., 88.

for it, examines it, and exclaims: "That's it!" Here, also, the search itself generates its object.[74]

Such is the formal structure of Cage's notion of the world-as-process, and (by extension) the world-as-musical. A vibrational sound is "alive," insofar as a desire for life appears in it for me. "*Anstoss* thus designates the moment of the 'run-in,' the hazardous knock, the encounter with the Real in the midst of the ideality of the absolute I: there is no subject without *Anstoss*, without the collision with an element of irreducible facticity and contingency—the I is supposed to encounter within itself something foreign.'"[75] *Anstoss*, the Lacanian *objet a*, that which is in the object more than the object itself, is, again, positivized as being Music; it is the object-cause of our sonorous desire; it is what is 'alive' about vibrational sound. And for Cage it is strictly transcendental, or beyond us; it indicates the external limitation of the listener's finite perspective, the I's self-positing activity.

However, Meillassoux shows us that sound is not only the facticity of its appearance for us; vibrational sound really is out there in the Great Outdoors, and its being out there is purely contingent. In consideration of vibrational sound, how can we begin to understand the ontology of living sound, or that which is 'alive' in sound (following Cage)? First, we must ask: is the facticity of the appearance of living sound wholly transcendental; that is, does it jar the listener (self-positing I) from outside (beyond her finite perspective)? Or, is it tied to the immanence of the encounter? Is it an obstacle that the listener presents for herself in order to overcome it in reaching for objectivity? Žižek's solution is, of course, the full acceptance of the gap torn open

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[74] Žižek, *Less Than Nothing*, 151.

[75] Ibid., 150.

126

between the two: "absolute simultaneity/overlapping of self-positing and obstacle."[76] The

appearance of living sound is to be distinguished "as the obverse of the activity of self

positing[....], that which incites the I [(listener-subject)] to endless self-positing, the only

non-posited element."[77] Living sound, under the condition of Cage's 'no-silence-that-is-

not-pregnant', is a positivization of the excessive negativity that marks listening itself, its

insubstantial reality, its "endless self-positing."

Is such self-positing negativity not exactly what Jean-Luc Nancy describes, when

he says the following?:

> To be listening will always, then, be to be straining toward or in an
> approach to the self….
>
>   Approach to the self: neither to a proper self (I), nor to the self of an
> other, but to the form or structure of self as such, that is to say, to the
> form, structure, and movement of an infinite referral [renvoi], since it refers
> to something (itself) that is nothing outside of the referral. When one is
> listening, one is on the lookout for a subject, something (itself) that
> identifies itself by resonating from self to self, in itself and for itself, hence
> outside of itself….[78]

To listen is nothing but the process of (infinite) internal and external referral. Should

composition attempt to proceed through (rather than retreat from) the endgame

imposed by 4'33", we must adopt a 'speculative' view of what it means to listen (rather

than a mere transcendental view), which is to say: to listen so as to encounter oneself

as a listener retroactively. The listener does not presuppose the process of listening.

Accordingly, Žižek would recognize Nancy's observation as deeply Hegelian in nature.

Nancy's description is an aural-conditioned reaffirmation that "the Self to which [the

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[76] Žižek, *Less Than Nothing*, 152.

[77] Ibid.

[78] Jean-Luc Nancy, *Listening,* trans. Charlotte Mandell (New York: Fordham University Press, 2007), 9.

listening] spirit returns is produced in the very movement of this return," not unlike a 'nation', which "exists only insofar as its members take themselves to be members of this nation and act accordingly; it has absolutely no content, no substantial consistence, outside this activity."[79] To listen is thus to encounter the listener who recognizes herself in the call to listen; it is to encounter oneself as nothing but the very process of aural mediation between internal thought and what the external conditions are. Hearing, in contrast to listening, is simply metaphysical; it is to fully assume (take it on faith) that what we hear is just out there, in some actual way.

The Frame Enframing the Frame in Reality

Before proceeding forward and considering *Silent Prayer's* overlooked (at least by Cage) path, and the consequences of such a path, we should formulate in a concise way the speculative position regarding the 'framed' silence of *4'33"*. For the audience attending a concert of *4'33"*, each member steps into a framed reality, a frame that is:

> always-already redoubled: the frame within 'reality' is always linked to another frame enframing 'reality' itself. Once introduced, the gap between reality and appearance is thus immediately complicated, reflected-into-itself: once we get a glimpse, through the Frame, of the Other Dimension, reality itself turns into appearance. [(Is this not the precise, founding gesture of 4'33"?)] In other words, things do not appear, they appear to appear. This is why the negation of a negation does not bring us to a simple flat affirmation: once things (start to) appear, they not only appear as what they are not, creating an illusion [(Music)]; they can also appear to just appear, concealing the fact that they are what they appear to be [(i.e, incidental sounds)].[80]

Again, we identify the extent of Cage's transcendental perspective. Cage is more than aware of the re-doubled frame, for such a re-doubling is precisely the intervention of *4'33"* (in its first deployment), and yet the appearance of appearing is always (for him)

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[79] Žižek, *Less Than Nothing*, 186-187.

[80] Žižek, *Parallax View,* 29-30.

an illusion, a necessary illusion of Music revealed as mere sound. Cage shares this

sentiment when he considers "art as life."[81] However, we must not forget the missing

last step: the possibility that mere sounds can "appear to just appear," and conceal the

fact that they do not constitute a propositional music. We have thus uncovered a

different kind of contingency: the contingency with which Music appears necessary. This

is also the missing half of Meillassoux's project: necessity itself is also contingent—

what we may call *contingent necessity*.

　　We may therefore consider *Silent Prayer* in the following three ways: first, as an

intervention that constructs a lack of vibrational sound, second, as a frame for listening

to (and potentially) accepting the mere sounds that happen to occur across the work's

duration, and third, as being nothing but the appearance of mere sound, as not being a

frame at all. It is the third consideration that marks *Silent Prayer's* difference from *4'33"*

and reflects the contingent necessity of the relation between hearing and Music.

　　In *Silent Prayer*, the notion of Music does not presuppose an encounter with

mere sound, as it does in the case of *4'33"*. Instead, mere sound is made subject to the

possibility of its being wholly other, of being living sound (being music's shadowy

double, filling in theorized, unknowable realities), without removing the possibility that

mere sound just appears (is perceived). By allowing for this possibility through our

transformation and construction of vibrational sound, composition may pass through the

epistemological limitation that prevents us from knowing the effect of the propositional

music we compose. The mere sound that would occur within the frame of *Silent Prayer*

would not necessarily be heard or even attended to as a propositional music. *Silent*

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[81] see Cage, *For the Birds*, 87.

Prayer, instead, embraces the possibility of a speculative music, one that is wholly

decidable regarding the necessity with which it appears in relation to Music at all.

The Speculative Path

Considering that *Silent Prayer* was never realized, the precise conditions of its

performance are unknowable. However, we can still continue the thought experiment

and potentially update it a bit by taking into account the contemporary, cosmopolitan

soundscape as the intervention's possible backdrop.

The Performance Context of *Silent Prayer*

In his consideration of music in the Mall of America, Johnathan Sterne describes

sound's insistent presence:

> at the Mall of America (Bloomington, Minnesota), beneath the crash of a
> roller coaster, the chatter of shoppers and the shuffle of feet, one hears
> music everywhere. Every space in the Mall is hardwired for sound…. The
> Mall of America both presumes in its very structure and requires as part of
> its maintenance a continuous, nuanced, and highly orchestrated flow of
> music to all its parts. It is as if a sonorial circulation system keeps the mall
> alive."[82]

Mere sound's insistent presence implies the "life" signified by its presence. In fact, when

one imagines one's own presence in such an environment, any music is probably taken

for granted in this context and is heard as non-incidental sound.

In Cage's description of *Silent Prayer*, he explicitly stated that the 'pre-recorded'

silent track would be sold to the MUZAK company for programming in such a public

(and ostensibly commercial) way. Fast forward sixty years, and "MUZAK in fact remains

the predominant service in the industry" (of 'programmed music').[83] Programmed music

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[82] Jonathan Sterne, "Sounds like the Mall of America: Programmed Music and the Architectonics of
Commercial Space," *Ethnomusicology* 41, no. 1 (Winter 1997): 22-23.

[83] Ibid., 24.

is where commercial stores buy a subscription to a service such as MUZAK and in return get to stream music to fill their stores—music that has been selected (from the pre-selected popular musics available) in order to comport most directly with the stylistic features valued by a target clientele. This situation is either a travesty for Music (its well-founded, historical mandate) or a fantastic opportunity. The former position is, of course, the least radical of the two. However, the 'travesty' here should actually be identified as a loss of musical 'authenticity' (such as, "quiet jazz arrangements like Madonna's "Like a Virgin" or Nirvana's "All Apologies" with a piano or saxophone playing the vocal melody") resulting in the deterritorialization of Music in order to 'territorialize' the Mall.[84] As such, a reconciliation between the two may be considered on the basis that such 'travesty' is, in fact, the founding gesture of 'opportunity'. A subtraction from the newly produced territory of Mall-music, viz. a 'silent' speculative music, is a negation of a negation, a literal subtraction of vibrational sound from Mall-music's functional subtraction of authenticity from Music, an intervention that does not bring us back to the same territory, that of Music.

If we consider what Cage's intervention would accomplish in such a contemporary context, what might we learn? In the Mall of America, music is not merely a necessary consideration of the space, it is assumedly so. MUZAK provides a mask to cover any conflicting feelings about the Mall itself—its empty, vacuous function as a place for shopping. The mask has become such a part of our experience of all commercial spaces that we rarely think to attend to the non-incidental sounds we hear. The ubiquity of non-incidental sound (background music) is precisely what enables us to

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[84] Ibid., 31.

think about how a silent intervention might disrupt our aural experience of a Banana Republic for instance. And yet, and here's the critical point, the apparent absence of background music is *not* necessarily a musical intervention, a propositional music itself. The contingency of necessity regarding any relation between Cage's intervention and Music is undercut in the case of *Silent Prayer.* The intervention only retains the possibility of being a propositional music. For those who would recognize their own capacity to listen to the incidental sounds of the Mall, by attending to the facticity of aural appearances, may encounter living sound without the *a priori* consideration of Music. It is in this sense that *Silent Prayer* may be considered a speculative music, for Cage's proposed intervention retains the possibility of being no music at all. This is the good news, so what about the bad?

The bad news is this: John Cage must disappear too, along with any Musical necessity.[85] There is no *a priori* conditioning of the site (discursively) to help explicate the meaning of *Silent Prayer's* intervention. There is no idea present in the intervention (its material subtraction of vibrational sound) that survives an encounter with multiple potential listeners and the multiplicity of aural appearances. A speculative music is nothing but the immanent possibility for living sound to appear when we question our background presuppositions about the given aural situation, *what it is.* The situation, if listened to, may be reassessed such that any ontological presupposition faces the possibility of its own annihilation. Such a speculative music is the radical fulfillment of the modernist approach we find in the Sibelius-Feldman tangency. Furthermore, the

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[85] This is really only bad news for us—those who continue to maintain (or perhaps more aptly, construct) Cage's significance. Cage himself seemed to welcome such disappearance, a notion that is reflected by both his desire to compose *less* music (per the famous anecdote about his visit with a psychiatrist) and by Conlon Nancarrow's insight that (much like Nancarrow himself) Cage "just want[ed] to be left alone." See Gann, *No Such Thing as Silence,* 132.

extension of this (possible) extinction/annihilation of presuppositions can be seen as a further withdrawal, a withdrawal concerning the necessity of the frame in reality being a frame at all, by revealing the contingency with which the frame is decided upon (by revealing the frame enframing the frame in reality). These are the coordinates of Babbitt's incomplete withdrawal: a reluctance and reticence to unhinge the artist from the work, the composer from the piece. Such an unhinging is precisely the decisive gesture inherent to any staging of *Silent Prayer*. Accordingly, we must identify *Silent Prayer*, though a mere compositional thought-experiment, as a truly speculative approach to composition. *The only truly speculative piece of music is one that retains the possibility of being no music at all*.

The withdrawal of necessity, is of course not itself a new idea in composition. As Cage understood, the *musique d'ameublement* of Satie is an attempt to realize this precise compositional gesture. However, accomplishing such withdrawal has proven to be a rather intransigent obstacle; in each instance (Satie, Cage, Babbitt), it seems to reify, rather than operate against, the priority of intersubjective consensus. This is precisely because the context of withdrawal becomes the distinctive feature of the (*a priori*) compositional work. It is the appearance of distinction itself (as the gesture of withdrawal) that co-opts any assertion of Truth outside of concensus. To follow the Satie example, the radical notion of *musique d'ameublement* is most commonly subsumed into normative musical discourse by citing a Milhaud anecdote from an experimental performance at the Galérie Barbazange in 1920:

> In order that the music might seem to come from all sides at once we
> posted the clarinets in three different corners of the theatre, the pianist in
> the fourth, and the trombone in a box on the first floor. A programme note
> warned the audience that it was not to pay any more attention to the

133

ritornelles that would be played during the intervals than to the candelabra, the seats, or the balcony. Contrary to our expectations, however, as soon as the music started up the audience began streaming back to their seats. It was no use for Satie to shout: "Go on talking! Walk-about! Don't Listen!" They listened without speaking. The whole effect was spoilt. . . . Satie had not bargained for the charm of his own music.[86]

Thus we see how a program note was used to try and condition the already performative context of the work's deployment. Satie himself attempted to manage the audience reaction to the 'non-music'. And his subsequent failure becomes affirmed as the utter success of his necessary and substantial propositional music—he "had not bargained for the charm of his own music." The propositional music remains decidedly his (Satie's); the audience always-already was an audience to *something*, and therefore his radical intervention under the guise of a *nothing* was itself retroactively deemed to be the (necessary) distinctive compositional gesture. The failure of nothing, the negation of Satie's negation of Musical convention, results in an intervention that is too substantial to overlook. The audience fills in the gap, and in the case of Satie, it is Satie himself ("his own music") that takes priority over the nothingness of the listening subject. Again, this is *Silent Prayer's* difference: Cage himself would not exist relative to any actual staging of *Silent Prayer.* Cage could not operate as a positive surrogate for the nothingness that would face the listener who recognizes herself in the call of silenced commercial music; the object of aural experience itself would appear to be different for no reason whatsoever.

Contingent Necessity

The real resides in the gap between appearances, not in the artist's recourse to reality. Thus, we have two incompletenesses, that of Music and that of vibrational sound

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[86] as quoted in Gann, *No Such Thing as Silence*, 76.

itself. The structure of such incompleteness is the very nothingness associated with the object itself, its blind-spot indicating the listener's inclusion in reality. What we initially took as an inability to know the totality of the object of aural perception is revealed as an ontological gap in the object itself in relation to the subject's inclusion in it.

In consideration of this notion of ontological incompleteness, we must extend Meillassoux's project, that is, assert that radical ontological contingency is itself incomplete. This is precisely the criticism that both Žižek and John van Houdt level against Meillassoux, and identify as a deeply Hegelian point. As Houdt explains, asking who is the subject of enunciation regarding statements about the in-itself (or, sound's properties without a listener):

> immediately invokes the figure of Hegel as the post-Kantian figure who, like Meillassoux, attempted to think the 'absolute' by overcoming the correlationist subject, while also bringing contingency to the center of his system. But Hegel went a step further by explicitly maintaining a doctrine of the subject produced from within the process of overcoming correlationism.[87]

Thus in Hegel, an external "objective" perspective remains impossible, precisely because any perspective remains immanent to the reality it aims to describe. Again, we incur the problem of reflexivity.

Meillassoux acknowledges the role that observation plays in consideration of the object itself, but he also points out an important difference between objectivist and subjectivist priority (showing how an objective stance cannot simply be subsumed by a transcendental perspective):

> Certainly, the presence of an observer may eventually affect the effectuation of a physical law, as is the case for some of the laws of

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[87] John van Houdt, "The Necessity of Contingency or Contingent Necessity: Meillassoux, Hegel, and the Subject," *Cosmos and History: The Journal of Natural and Social Philosophy* 7, no. 1 (2011): 130.

quantum physics—but the very fact that an observer can influence the law is itself a property of the law which is not supposed to depend upon the existence of an observer.[88]

The law of quantum physics that Meillassoux is referring to here concerns the breakdown of the wave function. As Frank Wilczek describes, a subatomic particle "does not have a definite position. It has a spread of possible positions [(superposition)], described by its wave function. We sometimes speak of "wavicles" instead of particles, to emphasize that fundamental aspect of quantum theory."[89] As Karen Barad further describes, "measurement resolves indeterminacy. … When we observe a system, it ceases to be in a superposition."[90] Observation is caught up in the thing itself, which is not a limit on our knowledge of the thing. Rather, this issue is ontological; it concerns where the thing is. The notion of observational resolution holds in not just *physical space*, but *discursive space* as well. In terms of the products of composition, the inability of any one observational position to accurately capture the significance (meaning) of a particular musical appearance is not an indication of insufficient or limited knowledge. Rather, our inability to know what the music *is* in any complete sense *means* the music *is* itself incomplete; the music could be different for no reason at all. This does not just mean that the composer could have written a different piece; it means that the piece the composer wrote is not just the One piece it appears to be *for me*.

If Meillassoux provides us with the means of considering the object itself, its primary properties, as being absolutely contingent, then Hegel shows us how such

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[88] Meillassoux, *After Finitude*, 114.

[89] Wilczek, *Lightness*, 152-153.

[90] Karen Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (Durham, NC: Duke University Press, 2007) 280.

contingency is always re-doubled in consideration of the observer's position. (Again, this

is Žižek's notion of parallax.) In Meillassoux's defense, the physical laws themselves are

not invalidated because they are influenced by observation (that is merely a tenant of

the law), but following Žižek's and Houdt's reading of Hegel we must consider the

contingency of such observation. Žižek formulates this tension nicely by accentuating

the limitation is ontological and not merely epistemological by enlisting Bertolt Brecht:

> For Brecht, the background of a stage should ideally be empty, white,
> signaling that, behind what we see and experience, there is no secret
> Origin or Ground. This in no way implies that reality is transparent to us,
> that we "know all"; of course there are infinite blanks, but the point is that
> these blanks are just that, blanks, things we simply do not know, not a
> substantial "deeper" reality.[91]

In consideration of any music, we encounter the tension between the two frames/stages

of performance: framed sound and the frame enframing that reality. The indeterminate

conditions of the first are subject to determination regarding our access via the second.

The mere sound whose (discursive) position is coordinate-less retains the possibility of

becoming placed through listening, or even further, the "contingency [of mere sound]

engenders or posits its immanent necessity"[92]—to be heard in relation to Music or just

incidental sound.

The arrival of a possible *determination of indeterminate aural apprearances* is a

profoundly interesting compositional issue. So far, throughout our discussion of Cage,

we have neglected some core issues at stake in his compositional practice, specifically

the development of musical indeterminacy through the deployment of chance

procedures as a compositional methodology. Now that we are armed with a fuller

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[91] Žižek, *Less Than Nothing*, 635.

[92] Ibid.

understanding of necessary contingency *and* contingent necessity, we may re-approach

the issue of cause-effect relationships as they appear in consideration of aural

experience. And furthermore, we must think of new ways to transform or construct

vibrational sound by providing a model for a speculative compositional practice.

CHAPTER 5
A MODEL FOR COMPOSING ONTOLOGICALLY INCOMPLETE MUSIC

The Territory of Speculative Compositional Affordance

Following Cage's hypothesized example of a speculative music vis-à-vis Silent

Prayer, it is imperative to consider and propose a model of speculative compositional

practice. Accordingly, the goal across the remainder of this text is to circumscribe the

territory of speculative compositional intervention, to address the practical and

pragmatic considerations that arise faced with the following paradox: I maintain a desire

to compose music, while I fully acknowledge that the base-condition of any aural

appearance is its capacity to be no music at all. Therefore, as a 'speculative' composer,

my musical task is the following: to provide a space for listening to emerge, whereby the

would-be listener is only a listener insofar as she retroactively posits her own

presuppositions regarding the activity of listening in which she is involved. As mentioned

in Chapter 4, just as the nation is only a nation insofar as its members believe

themselves to be members of the nation, music, similarly does not exist in any

substantial sense. What we call "music" is only-ever a capacity to retroactively posit the

presuppositions regarding the facticity of sound's appearance. Thus, it is the

composer's job to find ways to empirically address the (empty) place in which a person

may consider music's contingent, incomplete existence relative to her limited

perspective, rather than merely aim to surprise the a priori listener with what sounds are

possible within the confines of a pre-existing music.

Contingency and Chance

Our first step toward outlining the means of 'speculative' compositional

intervention is to (re)consider what is indeterminate about indeterminate music. The

word indeterminate refers to a disruption of any cause and effect relationships regarding the determination of particular sounds appearing within the context of a musical work. Philosophically speaking, indeterminacy is the rejection of the Principle of Sufficient Reason or the notion that for whatever there is, there must be a reason for it to be the way it is. For Cage, to pursue an indeterminate music meant that, procedurally, intention (cause) had to be separated from specification (effect). To compose indeterminate music, the composer does not directly cause either a specific sound or a specific 'silence' to occur, to be effectuated. To refer to our previous use of Cage's example of stars and their constellation, in indeterminate music the constellation is not specified as the consistent object of attention. There is nothing but stars that reflect their own 'chance'-determined distribution.

We must realize how the notion of musical indeterminacy operates internal to the frame of a composition. While sound may appear to us as indeterminate (existing without cause or intention), the frame of composition in which sound is sensed is itself not precluded from being necessary, from necessarily being a composition. Thus the necessity of a composition's framed reality is not viewed as being indeterminate. Or to put it differently, the incidental sounds we hear, and attend to as living sound, are determined *a priori* to be of a propositional music. We incur a propositional music that is less indeterminate than something that is not proposed (to exist in relation to Music). The music is thus determinate insofar as a composer (such as Cage) caused the compositional frame to exist; this remains the case even if the incidental sounds themselves, which appear in the frame, are understood to be devoid of any determinate relation.

140

Cage composed by relying on chance procedures. As Cage himself conceded, "any one of my indeterminate pieces, if recorded, becomes an object at the moment when you listen to it knowing that you can listen to it again. You listen again and the object surges forth."[1] Thus, as Daniel Charles clarifies, "at that moment, there is no difference between a determinate and an indeterminate work." To which Cage responds, "No, with the exception that, in the case of the indeterminate work, I'm not the one who put the logic into the score." Here, Cage overlooks or chooses to ignore how the necessity of there being a score remains both obvious and consistent. For Cage, the score supplies the necessary frame within which incidental sound appears. While the appearance of incidental sound within the frame is indeterminate, the intransigence of the frame also ensures (determines) that any appearance be considered in relation to the *a priori* notion of Music. Incidental sound remains in discourse with Music.

Chance as a form of empiricism

Cage famously often used the *I Ching* to actualize sound's appearance within the context of his music. He asked musically appropriate questions and the *I Ching* provided answers according to the outcome of successive coin flips. As Kenneth Silverman describes:

> To consult the *I Ching* about some personal question, one throws three coins six times. The six sequences of heads and tails are taken to represent a stack of six broken and/or unbroken lines, indicating one of the sixty-four hexagrams. Its accompanying text suggests an answer to the question. The final pages of the volume Cage received from [Christian] Wolff contained a graphic index of hexagrams—four columns depicting all sixty-four figures. … It occurred to [Cage] that he could think of the

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[1] John Cage and Daniel Charles. *For the Birds: John Cage in Conversation with Daniel Charles*, ed. Tom Gora and John Cage (London: Marion Boyars, 1981), 79.

hexagrams as corresponding to cells…; he could select the sequence of sonic materials by throwing coins and consulting the *I Ching*.[2]

Cage uses the *I Ching* as a selection algorithm, whereby certain outcomes are actualized based on pure chance. Cage thus retains control over mapping musical parameters to the list of potential outcomes. These mappings are, in effect, the 'questions' he asks the *I Ching*.

We must therefore consider Cage's chance procedures as yielding an indeterminate music only insofar as it concerns the framed reality of incidental sound and not the frame enframing such reality. Within the framed (scored) reality of a Cage composition we identify chance procedures as a form of empiricism. Chance, according to Cage is the logic of the natural world, and thus to employ chance is to more directly describe that which is natural about sound's appearance for us. Here, notice again, the codicil: for us. Chance is our means of empirically describing the facticity of sound's appearance, but our (pre-Meillassouxian) understanding remains cutoff from knowing the logic that governs the occurrence of vibrational sound or sound as a thing-in-itself.

Contingency and virtuality as un-totalizable

It is important to distinguish between the empiricism of Cagean chance and the virtuality of Meillassouxian contingency if we are to consider the full weight of indeterminate aural experience. Meillassoux provides us with concise definitions in an attempt to answer a fundamental question regarding the appearance of cause and effect relationships in general, under the condition of radical ontological contingency: if things that are, including natural laws themselves, have no reason to be as they are, i.e be consistent, then "why do they not change at each and every instant?" Meillassoux

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[2] Kenneth Silverman, *Begin Again: A Biography of John Cage* (New York: Alfred A. Knopf, 2010) 101.

proposes an answer to the question in a way that, for our musical purposes, helps draw

a clear and useful distinction between chance operations and the logic of contingency:

> if the duration of laws does not rest upon any necessity, it must be a
> function of successive 'dice rolls', falling each time in favor of their
> continuation or their abolition. From this point of view their manifest
> perennially becomes a probabilistic aberration. … To demonstrate why
> laws, if they can change, have not done so frequently, thus comes down
> to disqualifying the legitimacy of probabilistic reasoning when the latter is
> applied to the laws of nature themselves, rather than to events subject to
> those laws.[3]

The mere appearance of consistent cause and effect relationships seem to contradict

the absolute contingency of being, an unbridled capacity-to-be-other. Thus it is

probabilistic reasoning itself that must be shown to be inoperative regarding the laws

that govern material reality.

Meillassoux undercuts probabilistic reasoning (following Badiou, with whom he

studied) by employing the logic of Cantorian sets of infinities. As Meillassoux states:

"the Cantorian revolution consists in having demonstrated that infinities can be

differentiated, that is, that one can think the equality or inequality of two infinities."[4] In

consideration of differentiated sets of infinite possibilities, of ever greater infinities

governing the temporality of change, a totality of possibility is no longer pre-given to the

'dice-roll'. Or in other words, the set of possible outcomes is not pre-constituted; it is un-

totalizable. It is thus possible to assert that "current constants might remain the same

whilst being devoid of necessity, since the notion of possible change—and even chaotic

change, change devoid of all reason—can be separated from that of frequent change:

laws which are contingent, but stable beyond all probability, thereby become

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[3] Quentin Meillassoux, "Potentiality and Virtuality," in *The Speculative Turn: Continental Realism and Materialism*, ed. Levi Bryant et al. (Melbourne: re.press, 2011), 227.

[4] Ibid., 229.

conceivable."[5] Thus an important distinction arises between the notion of contingency

and chance, namely that contingency is un-totalizable, while chance operates under the

conditions of a pre-given set of possible outcomes. The difference between the

totalizability/un-totalizability of those non-actualized cases provides a space for

considering the difference between chance and contingency. Meillassoux thus

formalizes the difference between chance and contingency by defining each in relation

to the term that circumscribes the non-actualized, lingering possibilities of occurrence

('potentiality' and 'virtuality', respectively):

> Potentialities are the non-actualized cases of an indexed set of
> possibilities under the condition of a given law (whether aleatory or not).
> Chance is every actualization of a potentiality for which there is no
> univocal instance of determination on the basis of the initial given
> conditions. Therefore I will call contingency the property of an indexed set
> of cases (not of a case belonging to an indexed set) of not itself being a
> case of a set of sets of cases; and virtuality the property of every set of
> cases of emerging within a becoming which is not dominated by any pre-
> constituted totality of possibilities.[6]

Basically, chance is totalizable (and thus computable) while contingency is not. The

matrix in Table 5-1, articulates the dimensions of this distinction using the terms put

forth by Meillassoux.

Table 5-1. Matrix of indeterminate outcomes and possibilities.

	Totalizable	Un-totalizable
Actualized	Chance	Contingency
Non-actualized	Potentiality	Virtuality

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[5] Ibid., 230.

[6] Ibid., 231-232.

Cage is, of course, not quite so strict in his deployment of 'chance'; he deploys

the term across circumstances pertaining to the totalizable as well as those pertaining to

the un-totalizable. The friction between chance and contingency is on full display in the

following exchange between Cage and Daniel Charles:

> D.C.: Why chance?
>
> J.C.: We talked about silence as the entirety of unintended sounds. Interchanging sound and silence was to depend on chance.
>
> D.C.: Yes but, ultimately, nothing was really contingent on you any more. You withdrew your piece from the game. People have often criticized you for that, since strictly speaking, you stopped being the composer. Yet, wasn't there some mystification in that profession of irresponsibility?
>
> J.C.: But if the work I was doing in this state of irresponsibility was accepted by someone else, by somebody who had commissioned the work and who had a need for it, that would mean that it had become perfectly possible without demeaning anyone's honor at all to trust in chance—isn't that so?[7]

In this exchange, chance is presented as the (natural) logic underpinning the facticity of

sound's appearance (in relation to silence), while the word "contingent" shows up in

Charles' observation that the results of such chance determinations yield a music that

was no longer contingent upon Cage himself having composed it. The virtuality of

infinite possibility regarding an individual's subjective access to composed sound is

presented as being contingent (this is what we have discussed previously as contingent

necessity), while the sonic potentialities extant within the frame reflect a logic of chance-

determination. Individual access of, and even Cage's agency over, the frame in which

sound appears is marked as purely contingent (presumably upon intention), yet what

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[7] Cage, *For the Birds*, 42.

sounds actually appear within the frame are a matter of either chance or contingency, depending upon the means by which the materials are specified.

For a work such as the *Freeman Etudes*, chance takes priority inside the frame if we consider the in-no-way-meager but nevertheless finite set of choices reflected across each parameter of musical notation. Each notational mark reflects a choice. And each choice reflects Cage's own delimitation or totalization of possibility: first regarding the physical actuation of sound on the violin, and second concerning the ontology of the notational system. Thus, a set of potentialities (both physical and notational) is prioritized, despite a notable disregard for performative limitation, that is, despite the performer's limited bandwidth to mediate the physical and the notational.

Comparatively things are a bit more complex for a work like *4'33"*. The determination of durations of 'silence' are a matter of chance (dice rolls mapped to *I-Ching* outcomes), yet the 'musical' sounds that appear within the frame are purely contingent; the 'musical' sounds could be anything whatsoever (crickets, rain, wind, HVAC systems, a plane crash, etc.).

In identifying the difference between chance and contingency, we establish a distinction of compositional agency. I, as a composer following Cage, can control (determine) the use of chance operations to specify musical structures, forms, and materials. However, I cannot fully (totally) account for pure, radical contingency regarding what actually occurs. Any occurrence, either internal to the frame or regarding the frame itself, is in reality devoid of any reason (even probabilistic logic) whatsoever. Following this insight, the proper *speculative* question becomes: how, then, in light of unfettered ontological indeterminacy, can determinate relations appear? Or further, how

must we (re)think the relationship between the appearance of consistent, predictable outcomes and radical contingency?

How Contingency Appears

One of the most interesting and practical outcomes of Meillassoux's distinction between chance and contingency concerns how contingency actually appears. Up to this point, we've only considered contingency as a pure, unbridled capacity-to-be-other. Yet, we must ask "how does this capacity-to-be-other become manifest"? This question is, of course, deeply problematic because it concerns the appearance of that which governs (absolutely) the facticity of appearances. Therefore, as Meillassoux recognizes, we must:

> discover in our grasp of facticity the veritable intellectual intuition of the absolute. 'Intuition', because it is actually in what is that we discover a contingency with no limit other than itself; 'intellectual' because this contingency is neither visible nor perceptible in things and only thought is capable of accessing it, just as it accesses the chaos that underlies the apparent continuity of phenomena.[8]

Absolute contingency is found within the facticity of the correlation between thought and being, within our very *intuition* that subjective representations *may only be described*. Contingency does not appear itself; we discover absolute contingency when we intellectualize our intuition about what appears. Meillassoux's distinction between the totalization of potentialities internal to aleatory logic (chance operations) and the un-totalizability (the virtuality) of being other provides the means to intellectually re-orient our intuitive understanding of the apparent consistency of natural laws.

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[8] Quentin Meillassoux, *After Finitude: An Essay on the Necessity of Contingency* (London: Continuum, 2008), 82. (emphasis added)

Internal to a dice-game, it is highly probable that outcomes of successive dice-rolls change frequently. Yet, the distinction between chance and contingency unties our notion of chaos from the necessity of frequent change precisely because there is no reasoning behind when or how things change; change is un-totalizable and thus absolutely unpredictable. The appearance of consistency is therefore not an aberration, a strike against absolute contingency, but rather its fullest and most tenuous expression. The consistency that emerges across each moment's apparent maintenance of natural laws, reaffirms, again and again, the contingency of any determinate relations.

Continuing with the analogy of a dice-game, we should not be astonished that a six-sided die, when rolled, consistently yields the same case over and over. Žižek, interpreting the consequences of Meillassouxian contingency, reaffirms that any such astonishment regarding the consistency of chance-determined outcomes:

> relies on a possible totalization of possibilities/probabilities, with regard to which the uniformity is improbable: if there is no standard, nothing is more improbable than anything else. This is also why the 'astonishment' on which the Strong Anthropic Principle in cosmology counts is false: we start from human life, which could have evolved only within a set of very precise preconditions, and then, moving backwards, we cannot but be astonished at how our universe was furnished with precisely the right set of characteristics for the emergence of life—just a slightly different chemical composition, density, etc. would have made life impossible …. This 'astonishment' again relies on the probabilistic reasoning which presupposes a preexisting totality of possibilities.[9]

Thus, being consistent is just as 'probable' as being anything else; regardless of any potential outcome, the possibility remains that a seventh case could emerge at any moment in the six-sided dice-game. The virtuality prefiguring any contingent outcome

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[9] Slavoj Žižek, "Is it Still Possible to be a Hegelian Today," in *The Speculative Turn: Continental Realism and Materialism*, ed. Levi Bryant et al. (Melbourne: re.press, 2011)*,* 216.

reframes any 'miraculous' occurrence as being not the product of some metaphysical,

Divine intervention, but rather, as being a sign of the inexistence of the Divine; it is

"proof that nature is non-All, not 'covered' by any transcendent Order or Power which

regulates it. A 'miracle' (whose formal definition is the emergence of something not

covered by the existing causal network) is thus converted into materialist concept."[10]

The composer's use of chance operations is, therefore, not sufficient as a means of

reflecting the contingent being of things, namely of vibrational sound and its

phenomenal appearance to us.

Insofar as composers seek to reflect ways of hearing the world in relation to what

the world actually is, the acceptance of chance-determined sonic outcomes is itself

incomplete in realizing a speculative music that is not fully constituted, a music that is

not the totality of its vibrational sounds. Thus the composer cannot seek recourse solely

in deterministic models, nor solely in chance operations; both approaches proceed

based on the totalization of possible outcomes. Instead, the composer must seek to

create the empty, un-totalizable place wherein materialist 'miracles' may appear. Such

an approach stands in contrast to the more conventional notion of attempting to signify

a particular intended 'miracle'—that is, which One meaning—should appear. This is to

say, our un-totalizable approach concerns the ontology of any possible aural

appearance, while the more conventional route seeks to address an epistemology

governing music's necessary appearance.

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[10] Ibid.

An Allegorical Example

Before I offer my particular solution to the composition of ontologically incomplete (speculative) music, some examples of art that accomplish this task will prove useful. First, Lacan gives us an allegorical example of an ontologically incomplete art. As part of his Seminar IX (*The Four Fundamental Concepts of Psychoanalysis*), Lacan provides a capstone to his discussion concerning the priority of the 'gaze' and the 'eye' by recounting the story of Zeuxis and Parrhasios, two classical painters tasked with creating the most 'realistic' wall-painting, or fresco:

> In the classical tale of Zeuxis and Parrhasios, Zeuxis has the advantage of having made grapes that attracted the birds. The stress is placed not on the fact that these grapes were in any way perfect grapes, but on the fact that even the eye of the birds was taken in by them. This is proved by the fact that his friend Parrhasios triumphs over him for having painted on the wall a veil, a veil so lifelike that Zeuxis, turning towards him said, Well, and now show us what you have painted behind it. By this he showed that what was at issue was certainly deceiving the eye (tromper l'œil). A triumph of the gaze over the eye.[11]

Through Lacan's account of this tale, we encounter the precise difference between two representations of reality: first, in the case of Zeuxis' grapes, reality is considered wholly constituted, and second, in the case of Parrhasios' veil, reality is itself incomplete. The lack of content regarding the veil, its very emptiness, forces the viewer to confront her own gaze. It is the gaze that deceives the eye through its insubstantial cut into reality. The priority of the gaze undermines the notion of a fully constituted objective reality that is wholly substantial. Again, we are reminded of the Brecht example from Chapter 4 concerning the (ideally) white background for theater: behind the white background

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[11] Jacques Lacan, *The Seminar of Jacques Lacan, Book XI: The Four Fundamental Concepts of Psychoanalysis*, ed. Jacques-Alain Miller, trans. Alan Sheridan (New York: W.W. Norton & Company, 1981), 103.

there is no deeper, substantial reality—not because we cannot know all of reality, but rather, because reality itself is not complete, it is not fully constituted.[12] This, too, is the case with Parrhasios' veil; there is no subjacent reality when we attempt to pull back the veil.

Identifying Some 'Real' Examples

Is Max Neuhaus' Times Square not a contemporary sonic manifestation of Parrhasios' triumph? Neuhaus does not present us with the 'real' sounds of Times Square, rather, he seeks to cover them up, to create an endless sonority that may not be heard as an artistic intervention at all. Furthermore, the sonority generated by the Times Square installation is un-totalizable; it necessarily changes based on the physical, material conditions of the site in which it is placed. People who walk over the subway ventilation shafts from which the sound emanates physically impede and potentially reflect the acoustic signal; changing temperatures, wind-patterns, and atmospheric pressure all effect the sound—the list could go on ad infinitum. This notion of contextual change stands in strict contrast to concert hall music (including my own *Windows Left Open*, despite the dialectical opposition it poses between 'natural' and 'algorithmically-determined' sound). *Times Square* is different; not only do contextual factors change the material reality of the work in relation to its taking of place, but they do so in a precisely Badiouian way: *Times Square* undergoes the "trial of its subtraction" from any necessary Musical consideration. Neuhaus subtracted his work from the conventional desire of both composers and audience members alike to listen in relation to Music. Any encounter with *Times Square* marks the possibility for mere sound to

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[12] see Slavoj Žižek, *Less Than Nothing: Hegel and the Shadow of Dialectical Materialism* (London: Verso, 2012), 635.

appear as *living sound* devoid of any necessity beyond the contingency of the encounter. For a composition performed in a concert hall, the sounds that appear do so in relation to our *a priori* consideration of Music, in relation to our desire for living sound to be produced and reach its fullest, most transcendent expression as an ideal representation of a wholly complete music.

In light of this difference between the contingency of *Times Square's* materiality and the idealism of conventional concert hall works, is speculative music (an ontologically incomplete music) precluded from arising in the concert hall? Perhaps so, but if we assert that it isn't *impossible* per se, a speculative music would surely prove to be more challenging to realize in a concert hall rather than outside it simply because of our *a priori* knowledge of the concert hall's function. Like those who perhaps stood in consideration of Parrhasios veil, we expect upon entering a concert hall to hear music. The 'musical' veil is therefore conditioned by what the concert hall already is (both materially and discursively).

As a 'speculative' composer approaching the concert hall as a place for music, I must realize that whatever I produce in an additive, substantial way necessarily appears in relation to Music. So how does a composer re-address the concert hall insubstantially? The speculative composer must provide the conditions for living sound to be discovered not because of the place of its taking of place, but despite it. Our identification of living sound must only retain the possibility of being music, a possibility that is itself purely contingent. Here is where we must instantly mark a difference, or diverge, from Cage.

4'33" can be read as Cage's response to the above question/task (to compose the most realistic music for concert hall). His propositional answer was to reveal how the concert hall itself is sufficient in constituting a totality of sound against which we may apply the term 'music'. In consideration of the allegorical analogy found in Zeuxis and Parrhasios' competition, *4'33"* is akin to revealing the wall itself as entirely sufficient in constituting a Real painting. Perhaps even more accurately, *4'33"* is akin to determining the dimensions of a frame through chance operations and then chiseling its negative space out of the wall and revealing the 'real' world behind it.

Here, the building cuts of Gordon Matta-Clark come to mind. Matta-Clark's interventions into abandoned architectural structures in the 1970s reflect the precise gesture described in the analogy between *4'33"* and Parrhasios' veil. In a number of works, including *A W-hole House* (1973), *Splitting* (1974), *Day's End* (1975), *Conical Intersect* (1975), and *Office Baroque* (1977), Matta-Clark cut away (subtracted) material forms from pre-existing architectural constructions and situated furnishings to reveal intersecting spaces within the space and structure of the building. Matta-Clark's interventions allowed for the mediation and interpenetration of different spaces—of different interior spaces as well the notion of interior and exterior space. Insofar as the remaining architectural elements serve to frame the reality of things beyond the architectural, Matta-Clark's treatment of architecture is homologous to Cage's treatment of Music; in *4'33"* the remaining vestiges of Music (the score, performer, instrument, concert hall), now silenced or precluded from the making of sound, serve to contextualize incidental sound, including performance.

But what happens when we strip away even the ground (the material reality) supporting a gesture of pure subtraction? We get a different notion of subtraction—we incur a subtraction that is always-already *there*. In fact, Robert Irwin, in his piece for the 1976 Venice Biennale, points toward a wholly insubstantial notion of subtraction by reducing the materiality of any frame to its bare minimum.

Irwin was asked to contribute a small work as part of the American entry for the Venice Biennale in 1976. After having several proposals rejected for fear of negatively impacting the main show, Irwin was pushed outdoors, outside the gallery space, and further told that he no longer had a budget with which to work. Irwin describes his subsequent intervention in the following way:

> So I'm outside in the patio area… kind of looking around trying to figure out what I could possibly do, and I'm sitting on a bench, watching these leaves fall between these four trees. Kind of nice little bosk of just four trees. … So I'm sitting out there, I've been kicked outdoors, we've got no money, and the whole thing has taken on a comic opera sort of quality. So I'm sitting there watching these leaves fall down and it's—actually it's a really beautiful sort of composition. And I get this idea. So I go to the hardware store and I buy these four great big nails, you know, and a piece of string. And I put the four nails in the ground and I put the string around the nails. And I tell Hugh, 'There's your piece.'[13]

If Irwin had determined the placement of the nails and proportions of string systematically, according to chance procedures, this piece would have been directly analogous to Cage's 4'33". Regardless, both works seem to toy with Badiou's assertion that, "in order for the process of a [artistic] truth to begin, something must happen. As Mallarmé would put it, it is necessary that we be not in a predicament where nothing

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[13] as quoted in Lawrence Weschler, *Seeing is Forgetting the Name of the Thing One Sees: Over Thirty Years of Conversations with Robert Irwin* (Berkeley: University of California Press, 2008), 273-274.

takes place but the place."[14] While technically the intent-ful distinction between reality and a framed reality is the constitutive gesture of each piece, it is an epistemological dead-end; once we come to know the *framed* place qua *generic place* (that is, as just plain old reality), art becomes wholly *unnecessary.*

After the brinksmanship of 4'33", Cage continued to use chance procedures as a methodology for composition, though he never again stared so directly into the void of a music that retains the possibility of being nothing at all. To reiterate, it is a commonly held view (a view that Cage himself seems to have held) that 4'33" was an 'endgame'. Across the remainder of his life Cage composed indeterminate music, but veered progressively towards more explicit musical realizations of games of chance. This is to say that Cage, over time, retreated from the absolute contingency of material reality into further applications of chance procedures internal to the necessary frame of Musical performance. By contrast, Robert Irwin moved beyond the brinksmanship of his work for the Venice Biennale not by retreating into further refinements of a methodology for necessary art, but rather, by turning in the opposite direction: he stepped through the frame and began questioning its contingent being from a position in reality.

Robert Irwin as a Model for a Speculative Art Practice

The first index that reflects Robert Irwin's 'speculative' investigation actually appears prior to his experiment in Venice in his dot paintings of the mid 1960s. In fact, these paintings appear in relation to Cage when we consider Robert Rauchenberg's White Paintings (1951) as a point of tangency between the two. The White Paintings, which consist of seven (rather tall and thin) panels of white paint on canvas, are often

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[14] Alain Badiou, *Theoretical Writings*, ed. and trans. Ray Brassier and Alberto Toscano (London: Continuum, 2004), 115.

discussed in relation to 4'33" (even from the perspective of the visual arts). Cage

himself stated that after witnessing Rauschenberg's investment in pictorial emptiness,

the temptation to craft a sonic corollary eventually became too great to bear.[15] In

consideration of the White Paintings, which were left as intentionally blank as possible,

Robert Irwin's dot paintings offer us a different approach.

The dot paintings were made on nearly square (82.5" x 84.5") canvases

stretched over wooden frames that balloon outward ever so slightly (no more than 2

inches).[16] Irwin prepared the surface of the canvas with lead-based white paint. As Irwin

himself describes:

> Then I put on the dots, starting with very strong red dots, as rich as
> possible but only about the size of map pins, put them on very carefully,
> about one every quarter inch or so, such that they seemed neither too
> mechanically nor too crudely applied—either way they would have thereby
> drawn attention to themselves as patterns—concentrating them toward the
> center and then dispersing them less and less densely, missing one or two
> here and there, as they moved out toward the edge. Then I took the exact
> opposite color and put a green dot between every single pair of red dots,
> doing the same thing out to the edge, stopping the green maybe just a
> little before the red so that there was a slight halation of the two colors on
> the edge. But in the center they essentially canceled each other out, so
> that you didn't see either green or red but rather the energy generated by
> the interaction between the two.[17]

Irwin's process of dot placement was thus extremely deterministic. Even as the dots thin

out along the edges of the canvas, the process of thinning followed the simple logic of

an intuitive coin flip regarding where and when to skip a dot. In a sense, this is like

binary painting: two complementary colors applied systematically, whereby the

presence or absence of any given dot is correlative to its distance from center, following

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[15] Kenneth Silverman, *Begin Again: A Biography of John Cage*, 117-118.

[16] Weschler, *Seeing is Forgetting,* 93.

[17] Ibid., 91.

some probabilistic weighting of 'on' versus 'off'. What is miraculous about these

particular works is the contingency of the gestalt, of each canvas being a painting at all

when considered by a viewer. Lawrence Weschler describes a particularly fascinating

anecdote that serves to show how the paintings themselves were incomplete in their

being objects of art:

> The Philadelphia Museum of Art owns one of these paintings, and I was
> standing before it one afternoon when a couple walked into the room. The
> young woman, gesturing with a sweep of her arm, sighed in mock
> exasperation, "See, this is what I mean." Her friend smiled knowingly
> (although it was clear that her comment did not arise within the context of
> any particular conversation they were having but rather tapped an ongoing
> aesthetic frustration), and the two moved quickly on. They had literally not
> seen a thing—one does not, one cannot in that amount of time. She was
> just sick and tired of having museum walls cluttered with empty white
> canvases.[18]

For the above woman who dismissed the work as nothing but a white canvas, the

painting was no painting at all. Yet, and here is the difference of approach from

Rauchenberg/Cage, the emptiness of content (or, more specifically, emptiness as the

painting's only content) is not all there is; it is the tenuous illusion of emptiness that

emerges in the midst of the material composition of dots. Accordingly, Weschler offers

us a different account of the effect these paintings may instill:

> William Wilson, the Los Angeles Times art critic, on first encountering
> these canvases in 1966, reported that 'the paintings blush,' and that verb
> perfectly captures the experience in all its temporality. A mute white
> canvas suddenly changes its aspect—there is a moment of tart disclosure
> […]—and we in turn blush back.[19]

Robert Irwin's dot paintings are therefore a contemporary, gallery-bound manifestation

of Parrhasios' fresco veil; each painting's reality, its being a painting at all, is in itself

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[18] Ibid., 94-95.

[19] Ibid., 95.

incomplete; the deterministic placing of dots require an insubstantial nothingness to intercede, to reflect the gaze's triumph over the eye.

Irwin's 'Speculative' Phenomenology

Though Robert Irwin is historically contextualized as a key figure in the Light and Space movement of the 1960s and '70s, the priority of perception that weaves together his myriad of works is not the only narrative that emerges when we look back upon his output.[20] The dot paintings serve as the first instance of a prerogative that extends beyond an investigation of the purely perceptual. I identify this prerogative as an investigation into the incompleteness of the artwork's material reality.

Irwin has, of course, time and time again argued against the priority of the fully-constituted object in aesthetic theory. However, Irwin often subsumes that which is nonobjective about aesthetic experience under phenomenological notions regarding the primacy of perception. This is potentially problematic because modern phenomenology (as it appears in the writings of Heidegger and Merleau-Ponty) is wholly transcendental, and reflects a strong-correlationist perspective. However, Irwin's particular consideration of that which is 'phenomenological' about art is adept and penetrating, and ultimately, speculative.

In his 1985 text, *Being and Circumstance: Notes Toward a Conditional Art*, inquiry into 'nonobjective' art is presented as an open line of investigation, the practical consequences of which have yet to be fully resolved, let alone be permitted to

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[20] Irwin is, of course, not the first artist to focus on pure perception as a primary consideration, nor would he assert to be. In fact, Yves Klein's *International Blue* and Ad Reinhardt's *Black Paintings* came earlier than even Irwin's late 'line' paintings of the early 60s. However, as Irwin argues, those artist were confronting perception as an intellectual and theoretical concept rather than as a matter of intuition. Irwin has always sought to present his work as being more inline with Russian constructivism—artists such as Kasimir Malevich, for whom perception becomes a territory of "pure feeling." See Weschler, *Seeing is Forgetting,* 79.

reconfigure society at large.[21] That society itself may be reconfigured in reality already

suggests that that which is nonobjective is not necessarily wholly subjective.

Nonobjective does not mean subjective; Irwin is very careful to avoid saying that he is

pursuing a *subjectivist* art. Regarding the non-object, we again incur a pure nothingness

from which we subtract the (metaphysical) object (that which is a whole, fully-formed,

totality in itself). We thus arrive at a something that is less than nothing, a less than

nothing that can only be maintained in relation to what actually exists (reality itself).

Therefore, a nonobjective art is certainly a reinvestment in the (secondary) qualities of

appearance, those that are given to us phenomenologically, but Irwin remains a bit torn.

Irwin's reticence to fully debase reality comes across in his more materialist (rather than

idealist) account of the problems posed by reflexivity: "you cannot correctly call any

human action either creative or free if the individual does not participate directly in the

setting, and intending, of his or her own meaning."[22] Thus reflexivity is not presented as

an epistemological limitation, but rather, it is shown to be the base-condition for

creativity/freedom, of (positively) being anything at all. The 'setting' and 'intending' of

creative action presupposes the subject's emergence from within reality; material and

discursive emplacement presuppose any appearance.

      There is a reality that persists precisely because we find ourselves in it. For Irwin,

it is a reality that is perceptually grounded in change: "change is the most basic

condition (physic) of our universe. In its dynamic, change (alongside time and space)

constitutes a given in all things, and is indeed what we are talking about when we speak

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[21] Robert Irwin, *Being and Circumstance: Notes Toward a Conditional Art,* ed. Lawrence Weschler (Larkspur Landing, CA: The Lapis Press, 1985), 13.

[22] Ibid., 17.

of the phenomenal in perception."[23] Irwin's account of change is presented as an absolute that is the product of his intellectualization of intuitive, perceptual experience within reality. As Irwin states further, "the phenomenal can be located in the dynamics of change in the world…[;] the phenomenal, as we can know it, exists in the dynamics of our perceiving (experiencing) the nature of the world about us and of our being in it."[24] Thus Irwin's 'change' is formally homologous to Meillassouxian 'contingency'. The absolute of change (a radical capacity-to-be-other) is revealed as a direct consequence of the facticity of the correlation between thinking and being, through appearance itself. It is an absolute that is not derived outside of the correlationist circle (which for Irwin stands as our phenomenological finitude), but rather as a direct consequence of it.

Since, for Irwin, our phenomenological perception in relation to the environments in which we persist are always at play (change), the question then becomes the following: in any given Irwin piece, what takes priority?— the eye or the gaze? What is at stake in drawing this distinction is precisely the 'reality' of the perceiving subject. It is akin to asking, does the subject pre-exist the encounter with the work as it is situated in reality? If we answer in the affirmative, we adopt a purely transcendental, post-Kantian perspective that undercuts our above 'speculative' considerations. But, if our answer is no, then we must see *how the subject of Irwin's art is nothing but the process of retroactively positing its own presuppositions*. Accordingly, this is to say that the subject emerges only insofar as it encounters itself as the object of perception given its confrontation with (being implicated in) the artwork's incomplete materiality;

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[23] Ibid, 9.

[24] Ibid, 23.

apperception neither pre-exists nor survives its encounter with the conditional (read: contingent) object. It is in this way, following the second paradigm, where we can claim Irwin to be properly speculative.

Where Irwin shows us the triumph of the gaze, by way of the object's material incompleteness, he differentiates himself from other phenomenologically-driven artists including James Turrell, Richard Serra, Bruce Nauman, etc. Take for example a quick comparison of Richard Serra's *Tilted Arc* (1981) and Robert Irwin's *Black on White* (2011). Both works were/are situated in public spaces juxtaposed with architectural elements. Even further, both works stand in contrast to the existent architectural and public space. *Tilted Arc* was a massive, substantial steel form (120 feet long, 12 feet high) bisecting the open square of Federal Plaza in New York City, while *Black on White* consists of a smooth 40,000 pound slab of black granite bisecting the entrance hall of the Getty Center in Los Angeles. *Black on White* presents both a formal and coloristic contrast to the context of its presentation. The critical difference between the two concerns each work's relationship not to perception, but to its material interaction with both viewer and site. *Tilted Arc* was necessarily presented as a material and phenomenological obstacle, requiring pedestrians and viewers alike to physically re-negotiate their own position relative to the work. As Miwon Kwon describes, "Some regarded the sculpture as plain, ugly, brutal, without any artistic merit whatsoever. Some found its presence on the plaza physically and psychologically oppressive."[25] Conversely, *Black on White*, only retains the possibility of imposition. It is not necessarily an obstacle, in a way that ensures that it is also not necessarily a work of

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[25] Miwon Kwon, *One Place After Another: Site-Specific Art and Locational Identity,* (Cambridge, MA: MIT Press, 2002), 78.

art; it only retains the possibility for further (self-)contemplation regarding the status of its non-objective being given the facticity of the contrast between it and its surroundings. *Black on White* is a non-object, which is not to say that it has no materiality, but rather that its materiality is not-All it is. As a work of art, it is radically incomplete; it must be decided upon in light of the indiscernability of its material form and the context in which it appears.

Irwin and Place

The difference between *Tilted Arc* and *Black on White* is ultimately a difference between *site-specific* art and *site-conditioned* art, respectively. While Serra's work had a specific site, it was not responsive to the possibility that its relation to that site (and those who pass through it) could change.[26] As Irwin himself states, regarding the notion of site-specificity in relation to Serra's work, "our process of recognition and understanding of the 'work of art' is still keyed (referenced) to the oeuvre of the artist. …A Richard Serra is always recognizable as, first and foremost, a Richard Serra."[27] That *Tilted Art necessarily* appears in relation to Art, even if it is specific to a non-Art site of reception, is what marks its difference from Irwin's site-conditioned work.[28] In *Black on White*, the relation/differential between (material) object and site embraces an ontological capacity-to-be-other; a change regarding one's perspective on the site may

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[26] *Tilted Arc's* formal imperviousness to change was ultimately ironic, as it was so disliked that it was (famously) removed.

[27] Irwin, *Being and Circumstance*, 27.

[28] The notion of Art's necessary appearance also serves to distinguish Irwin's remaining two categories of (sculptural) artwork, site-dominant and site-adjusted, from a site-conditioned approach. Like the site-specific art of Serra, both site-dominant and site-adjusted works are presupposed (upon encounter) to exist in relation to Art. Site-conditioned work must be considered in its *possible* relation to Art.

affect what *Black on White* actually is. Any such effect is the base *condition* of the work being anything at all.

It is imperative to note that not all of Irwin's works proceed in such a speculative manner. There are many Irwin pieces, both before and after his gesture of 'framing' at the Venice Biennale in 1976, that are explicitly presented as necessarily being art; this is to say, works whereby the eye takes priority over the gaze. However, across those instances in which we find Irwin's art to be an engagement with the contingency of being anything at all (contingent necessity), the *a priori* function of any given site is not necessarily a limitation. Rather, the site, and that which pre-exists it (namely, the place), may be addressed in ways that belie our *a priori* knowledge of its function. Again, the point here is that by addressing, conditioning, or balancing the contingent nature of the work itself—what it is from one moment to the next—epistemological limitation becomes revealed as the work's own ontological incompleteness.

Ontological incompleteness and the non-art place

Two further instances of Irwin's work serve to highlight a flexible relationship to site. First, we may consider his 1978 proposal, *Tilted Planes*, for Ohio State University. The site for the proposal was the "Oval Mall" which Irwin describes as:

> the active focal point of the campus, its most distinguished place. A nice natural confrontation brought on by the real complexity of criss-crossing paths. …While the initial layout of its crossing paths and resulting planes of grass may have had a formal geometry in mind, with the passage of time students have walked in a overlapping informal geometry which now provides the Oval Mall, like architecture, with a richness of variety and surprise.[29]

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[29] Ibid, *Being and Circumstance*, 41-43.

163

It is specifically these 'criss-crossing' paths that Irwin targeted as the pre-given structure

for his proposed intervention. Furthermore, Irwin was intrigued by the hourly flood of

students who traverse the Oval Mall, "going in so many directions that their crossings

seem to lose all 'rhyme or reason'—and the entire Oval takes on the spatial-temporal

qualities of a serious existential landscape."[30] Thus at the outset, Irwin identifies the

existence of the landscape itself and its function as continually being called into

question. The paths themselves are contingent upon use, a use that is not consistent,

but rather, is indeterminate; the Mall's geometry exists according to no apparent

cause/effect determinations. In consideration of all this contingent reality (the paths

really could go anywhere, or nowhere), Irwin proposes the following intervention:

> What I suggested was that they take the existing planes of grass—some
> of them, about a fourth—and tile them slightly in various directions. From
> one to the next it might go from zero to 18 inches, then a path, then from
> 18 to 30 inches, path, then back from 30 to 18, path and on down. The
> planes would just be tilted very slightly. Zero to 18 inches might happen
> over 100 feet. You'd shore up the sides by using Cor-Ten steel, because
> Cor-Ten looks brown and almost earthlike. We wouldn't be making an
> issue of the physical structure at all. The grass would still be grass, just
> tilted. That was all.[31]

This proposal thus responds to the contingent nature of the pre-given place, but offers a

(minimal) modification that eschews the "predicament where nothing takes place but the

place."[32] As Irwin himself states, "the intellectual connotation that it was about art was

just about as minimal as I've ever gotten it, and yet it still did something."[33] And yet,

what it did was a purely contingent phenomenon. One can easily imagine students

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[30] Ibid., 43.

[31] as quoted in Weschler, *Seeing is Forgetting,* 202.

[32] Badiou, *Theoretical Writings*, 115.

[33] Wescher, *Seeing is Forgetting*, 202.

(even freshmen) walking along the paths without attending to or even noticing the subtle variations in topology that arise across the Mall. The proposed intervention's material existence is thus incomplete in and of itself; it is not necessarily anything, let alone art.

It is imperative to understand that the contingency of the art object poses no threat to Irwin's legitimacy as an artist or the significance of the work itself. Though the Ohio State University proposal died in the Dean's office, Irwin maintains that it, "would have been a perfectly integrated figure/ground sculpture. The Dean's question, 'Where's the sculpture?' proves my point."[34] The possibility of it being nothing, a possibility that reflects the purely contingent necessity with which *Tilted Planes* appears as sculpture at all, only reinforces a material capacity-to-be-other and the un-totalizable decidability governing what is.

Ontological incompleteness and the place for art

While *Tilted Planes* provides an example of an ontologically-incomplete art arising in relation to a non-art place, we must ultimately address the question of whether such a 'speculative' result can be maintained in the context of the place for art, namely a gallery, museum, or concert hall setting. Thus our second example should appear in relation to a conventional context for art, addressing the context itself, the place itself.

Again, Irwin provides us with a model in *Scrim Veil—Black Rectangle—Natural Light* (1977). While Irwin's dot paintings address the 'reality' of a viewer's confrontation with canvas, as a form for art, *Scrim Veil* cuts open the minimal difference between the contingent object of art and the place for art. The work was part of a retrospective show of Irwin's work held at the Whitney Museum in New York. In an empty room on the

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[34] Irwin, *Being and Circumstance*, 43.

fourth floor of the museum, Irwin acted to shift the viewer's perception with a minimum

of material intervention. Lawrence Weschler describes his own experience of the room

thusly:

> As the elevator doors eased open onto the vast, empty room on the fourth
> floor of the Whitney, you were immediately in the thick of it, the thin of it.
> For a fragile moment, all your expectations were suspended, and the
> world itself seeped in. Already as you walked out of the elevator, you were
> triangulating, calibrating, trying to get a fix, to mend the tear in the fabric of
> your mundane anticipations. But even as you were doing so, you were
> newly aware of the way in which that is something you do all the time.
> …The only light was the natural light of day streaming in from that large,
> peculiar window over to the side and spreading the length of the
> hauntingly sheer scrim that, suspended from the ceiling down to eye level,
> bisecting the room longitudinally. Also at eye level, a thin black line skirted
> the walls of the room, describing a huge rectangle and then flashing out
> along the base of the bisecting scrim. The pristine scrim was by turns
> uttlerly transparent and then utterly opaque, both at the same time…. As
> you walked around the space, under the scrim, into the corners, along the
> walls, the room itself seemed to stand up and hum.[35]

Weschler's account marks an encounter with the work that is a true *event*, its

miraculous phenomenal appearance reconstitutes the known configuration (all possible

anticipations) regarding aesthetic effect. But what is truly remarkable about the work is

that, in and of itself, it did not necessitate any such determination. In fact, based on the

variance of other accounts of the work, it becomes clear that any *one* determination

regarding that room on the fourth floor is insufficient, incomplete. As Weschler

acknowledges, "Yet, some people did not get it at all. The elevator doors slid open; they

peered out, stepped back in, pushed the button, and were gone."[36] It is precisely this

(drastic) discrepancy between subjective accounts, reflecting the work's fluctuating

semblances, that indicates the triumph of the gaze over the eye.

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[35] Weschler, *Seeing is Forgetting,* 185.

[36] Ibid.

Irwin himself was fully aware of the capacity of others to overlook the piece entirely. Talking to Weschler the morning after the show's opening, he said:

> A lot of people just say, 'Oh, its an empty room. The question then, of course, is emptied of what? What they do is come into this room with expectations and deal with whatever it is they think the room is supposed to be occupied by. What they are indicating by saying that it's an empty room is that all the things going on in that room, all that physicality in that room, somehow does not exist for them.[37]

Irwin clearly identifies the priority of gaze over the eye, concerning one's relation to the work. Yet, Irwin backs away from the speculative implications of gaze regarding the works incomplete ontology, when he continues by saying: "actually the room is not empty at all."[38] Irwin thus remains guarded against a more speculative understanding of viewers' divergent responses to the room. However, it is precisely the fact that the divergent responses concern what *is* or *isn't* in the room itself (its suspect materiality) which marks a notable difference from any conversation pertaining to one's purported understanding of what the room means. The divergent successes/failures are ontological and reflect the work's material incompleteness, rather than reflecting viewers' limited knowledge about what the work means.

Irwin's reticence to fully embrace a theoretically speculative path, despite it becoming manifest across both his work and writing, was (thankfully) not a reticence that extended into his artistic practice. In fact, such theoretical reticence may in fact be attributable to Irwin's mounting unease with pre-existing places for art:

> For years already, Irwin had harbored doubts about the compromise of working in museums, because, in effect, all that happened in such situations was an expansion of the frame—from the canvas to the entire

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[37] Weschler, *Seeing is Forgetting,* 185-187.

[38] Ibid.

room, or even the entire museum—without a truly fundamental suspension of the posture of focus or frame itself.[39]

Thus Irwin identified the Great Outdoors, in all of its abject contingency, as the only place to call into question the necessary status of the frame in reality. For Irwin, despite the ontological implications (of incompleteness) that arise in consideration of *Scrim Veil*, any framed reality that appears within the confines of the museum still appears as being in relation to Art. Despite Irwin's own uncertainty, we should nevertheless identify how *Scrim Veil* seriously questions (even if it does not fully suspend) "the posture of focus or frame itself." The frame, while perhaps not dissolved completely, is revealed to be contingent, ontologically incomplete.

The Model and Music

The examples of and possibilities for ontologically incomplete art evidenced across Irwin's career are vast. The model he offers us is not grounded in aural perception, but nevertheless it can be considered from within the field of music composition. Between the exploratory example of Max Neuhaus' *Times Square* in Chapter 3 and our more thorough treatment of the conditions for a speculative and ontologically-incomplete art across this Chapter, the practice of composition is now primed for direct experimentation.

Our speculative approach to composition can be summarized in the following way: within the frame of a musical composition, form, structure, and material are never wholly deterministic or indeterministic (as a matter of chance), which means that both the appearance of consistent outcomes and probabilistic (chance) procedures are contingent and can change for no reason whatsoever. Thus, internal to the framed

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[39] Ibid., 189.

reality of composition, knowledge regarding any content or what is *actually* meaningful about sound is necessarily limited. However, this limitation on knowledge does not reflect our inability to *know* the work (or any other object for that matter), but rather, it is an indication that the work's objective existence *itself* is incomplete.

Our recognition of ontological incompleteness is an opportunity for compositional practice. Rather than attempting to further specify how her composition may signify a particular something—to be interpreted by others—the composer may instead intervene into the pre-given place of reception, augment the vibrational sound of the place, and accept that any significance attached to the intervention (ascription of a perceptual difference to "music") *is only a condition of one's being there and not a requirement*. The place in which the composer intervenes can be any place, though a stricter set of epistemological limitations emerges when it is a place that is *a priori* understood to exist in relation to Music. For all appearances of *living* sound there is a frame enframing the reality of the place in which we find ourselves to be listeners. If a *minimal difference* (between the phenomenal presence of sound and its noumenal notion) is introduced as a being of the place (of our subjective *taking of place*), living sound may appear for no reason whatsoever. The appearance of living sound, for no reason at all, *means* (beyond any unrestricted, possible interpretation) that the place itself, its objective reality, is incomplete in being a fully constituted reality at all. Such a speculative approach remains a largely unexplored opportunity for composers.

CHAPTER 6
CONVERGENCE: APPLYING THE MODEL

A Particular Speculative Music

To wade into the waters of a 'speculative' music is daunting. For a composer

trained in various established idioms reflecting the known configuration of musical

appearances, it is difficult to consider a music that is not dependent on one's knowledge

of how, why, or even if music exists. As introduced in Chapter 1, most composers have

been trained to consider misinterpretation as a threat to compositional success. Any

semiotic breakdown regarding esthesic access to the work potentially undermines that

work's content, its ability to mean anything. Our problem is deepened when we consider

that any such misinterpretation, or misalignment between poietic and esthesic

prerogatives, is not only possible, but inevitable. Thus the composer's job, traditionally,

is to minimize the variety of possible misinterpretations, to clarify with every greater

precision compositional intention (even if unintended sound is the intention).

Our speculative approach inverts this problem and reveals it to be not merely an

epistemological limitation, but rather an incompleteness concerning the material reality

of that which appears. The great threat, misinterpretation, is thus ontologized: sound is

not just interpreted differently by way of subjective access, but is objectively incomplete

as being anything in itself. Our limited perspective, the aural finitude regarding our

relation to the physical, material world around us, is a reflection of our being in an

acoustic reality (of vibrational sound) before it ever aurally appears for us. There *is*

nothing but the material reality of vibrational sound. This nothingness reaffirms that

vibrational sound *is not all there is*; vibrational sound (or any assemblage thereof) is

incomplete, ontologically un-totalizable—precisely because it 'miraculously' appears *for us*.

From within the contingent and thus un-totalizable acoustic reality that we find ourselves in, how does the composer begin to intervene? How does the composer (*as a material Being in reality*) condition the possible *circumstances* for reality to appear to itself (other material Beings) as an aural experience? This is the properly speculative compositional question. Many different composers can potentially seek to answer this question in many different ways. I propose a particular way, one that has proven useful for myself thus far and continues to raise interesting questions. I will now seek to derive its relevance to the speculative consideration of music.

Indeterminate versus Determinate Appearance

To reiterate Badiou's point again: for art to take place something has to happen; material reality itself is not sufficient. Which is to say, we can't have the situation where nothing happens but the place. This is a good thing. Otherwise, the composer's job would be superfluous, and thus, truly meaningless. Ultimately, this is to say that something must intervene (happen) in the domain of aural appearances. So precisely what must happen?

For a moment, let us disregard materiality (acoustics) and consider the notion of a consistent aural appearance (such as a bird voicing the same pitched call at regular intervals for a seemingly interminable duration). Contingent necessity demands that any such consistent appearance is itself always subject to radical transformation, of becoming radically different for no reason whatsoever (the bird's call changes in some un-totalizable way or even stops being a call at all). Furthermore, if we adopt the opposite perspective, that of a chaotic aural appearance (such as the sounds of 1000

birds each with different calls), contingency still demands that such appearance could be radically different (the chaos of bird-songs is the sound of an aviary). Thus, both the aural appearance of indeterminate chaos and the appearance of determinate consistency are wholly contingent.

The necessary contingency of sonic materials and the contingent necessity governing aural appearances are both operative irregardless of any particular material or given appearance. The relevance of this appears in light of the following desire: if the composer is to intervene, then *how* (by what methodology) does she seek to specify both the materials that exist within the frame and the frame's contingent existence? Should compositional agency take the form of ever-greater specification of determinate relations? Or, should such agency proceed as an abdication of intentionality, a deferral to indeterminate chance procedures? The properly speculative answer is, of course, both—in a manner that is fully overlapping, yet never solely (completely) one or the other. My contention is that the composer should proceed in a way that modulates any ontological appearance in a way that presents nothing but the gap torn open between the two.

Modulating the Semblances

To refer back to our discussion in the previous chapter of Robert Irwin's *Scrim Veil—Black Rectangle—Natural Light* (1977), we identified how the relations between the work's materials yielded drastically different notions of what the work was in itself. Scrim Veil was neither wholly a piece of art, nor was it nothing at all.[1] It was incomplete,

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[1] Of course, *Scrim Veil* has necessarily become a work of art given our perspective today. But, this necessity is nevertheless contingent, it is a product of the work having been decided upon—what we have been calling 'contingent necessity'. This process in no way undermines the immediate 'decidability'

precisely because its appearance shifted between the two (or three, or however many) different accounts of what it was.

Our proposed response to the task of composing speculative music, as being a music that is neither wholly consistent in its presentation of sound, nor chaotic, is thus a direct reflection of the following prerogative: to modulate the work's semblances. Thus the question remains, how may consistency overlap with chaos? How may we move between the two, without either taking priority?

The Temporality of Change

We find our answer in the following way: by seeking recourse in the temporality of musical change. Change is perceived as a differential of appearances across some duration of time. In music, sounds generally appear to change through time. The differences that arise between sounds from one moment to the next can be described in mathematical ways. We have stated (in Chapter 5) that contingency itself is not computable precisely because it is un-totalizable. Thus, even though mathematics provides us with the distinction between contingency and chance, our ability to control (intervene in) contingent processes is never fully possible; it is incomplete precisely because contingency is an absolute. Therefore, our only agency over the modulation of semblances regarding the frame of composition comes in the form of that which is totalizable and thus computable. (Even so, we must still concede that our apparent agency is itself contingent.)

It is therefore left to us to devise a particular dice-game, one that marks the apparent change of sounds through time as never wholly determined (consistent), nor

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of its original presentation, or that, as being anything at all, it could have (materially) been radically different.

completely indeterminate (random/chaotic). My particular solution to this problem (proposed dice-game) is to *deterministically change the die that we use to indeterminately change the appearance of sound.* This might seem absurdly simple, but it is an entirely sufficient means to modulate the outward appearance of what the sounds are across time in a manner that yields a wide (though not un-totalizable) set of possibilities. To generate a wide range of possibilities is desirable only insofar as the appearance of sound forces a would-be listener to question what that aural appearance is at any given moment.

Convergence of Set

We can consider the aforementioned dice-game in a theoretical way by maintaining an analogy with a real/physical die. Subsequently, I will describe some details of my own software implementation of this behavior.

Given a particular die, we identify a number of pre-given cases or potentialities corresponding to the faces of the die. When we roll the die a particular case is selected according to an (assumedly) uniform probability of selection, whereby all potential cases have equal chance of being selected. Let us arbitrarily say that we have a six-sided die, so we have six potential cases. Each case is associated with numeric values: 1, 2, 3, 4, 5, and 6, respectively. The proposed game unfolds in the following way:

1.   Determine a numeric *step value* (SV) that is equal to 1 divided by some integer that is greater than or equal to 1 (for instance, 1/10 = 0.1)*.*

2.   Roll the die to determine a *selected case* (SC).

3.   Record the *associated value* (AV) of the SC and store it as the *target value* (TV) for each of the die's potential cases.

4.   Roll the die to determine a SC.

5.   Apply the AV of the SC determined in step 4 to a parameter of sound generation.

174

6.   Update the AV in one of the following two ways:

    i)   if the TV is greater than the AV, then add the SV to the AV.

    ii) if the TV is less than the AV, then subtract the SV from the AV.

7.   Change the die so that the numeric result of the previous step will be the new AV for the SC on any future rolls.

8.   Go to step 4.

This procedure results in a very specific behavior. The die is initially governed by

chance—the equal probability of selecting different cases (which we may refer to

orthographically as: one, two, three, four, five and six). Each case is associated with

different integer values (which we may define numerically as 1, 2, 3, 4, 5, and 6,

respectively). However, after successive rolls, the value associated with each case

progresses toward a consistent value outcome, the product of our first roll or the *target*

value (TV). The more we play the game, the more the values converge toward the TV—

until finally all associated values (AVs) are the same; the associated value equals the

TV for all cases. To provide an example using the aforementioned die, lets say we roll

the die and select five. We then set 5 as our TV. We then roll again and select six and

then apply 6 to some parameter controlling sound generation. We then update 6 by

subtracting (following step 6-ii) 0.1 from 6, which gives us 5.9. We then change the die

so that the die's sixth face (case six) has an associated value of 5.9. As we continue to

roll, we select cases at random (by chance) and in each instance update the values

associated with the selected case and then change the die accordingly. Eventually,

cases one through six all have an associated value of 5. At this point, any die-roll will

yield a consistent outcome even though that very outcome was itself determined by

chance. See Figure 6-1 for a graphical representation of value outcomes determined by

250 iterations of this exact dice-game.

If we stop here, our game is over (or it otherwise goes on for an infinite amount of

time yielding the same result: 5). However, once we have *converged* we may then invert

the process described in step 6 (adding or subtracting the *step value* to/from the target

value), and begin to *diverge* back towards the original values. Accordingly, rather than

updating the selected case's value as a means of approaching consistency, we update

it in the other direction and approach randomness. See Figure 6-2 for a graphical

representation of divergence within the bounds of the dice-game described in the

preceding paragraph.

ConvergentArray: an implementation of set convergence in software

In software, the game is played using data structures rather than dice; an array of

indexed values may function as a die. Our array constitutes a pre-given set of

differentiated values—a set being a finite configuration of potentialities subject to

probabilistic logic. To roll our die in software, we randomly select a value at a given

index, which will replace the term *case* for the remainder of this section.

In the SuperCollider[2] programming environment, I implemented a Class

Extension called "ConvergentArray" that functions like the die described above, with a

few notable modifications/extensions. (See Object 1 for the SuperCollider

implementation of ConvergentArray).

Statistical Feedback Modification: The ConvergentArray object implements a

statistical feedback model governing the selection of any given index in order to ensure

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[2] SuperCollider is an audio programming environment developed by James McCartney. The software is open source and available online at the following address: http://supercollider.sourceforge.net/

the appearance of randomness. This model is a direct implementation of the dissonant

counterpoint algorithm described by Larry Polansky, Alex Barnett, and Michael Winter in

2010.[3] (See Object 2 for a SuperCollider implementation of the dissonant counterpoint

algorithm). True randomness, even computational pseudo-randomness, is notoriously

bumpy. For our purposes, the appearance of randomness is the priority, so I have taken

pains to smooth it out: the outcomes of previous selections (history) are taken into

account such that more recently selected indices are less likely to be selected and less

recently selected indices are more likely to be selected. Statistical feedback biases the

algorithm toward the exhaustion of the set of indices, if not series and pattern,

depending on how the biasing is biased (how previously selected indices increase in

their probability of selection across successive rolls).

Growth Function Modification: In the SuperCollider implementation, I further

extended control over the rate and shape of convergence. The rate of convergence

concerns the number of iterations (die-rolls) until all *associated values* equal the *target*

value. The rate of convergence is controlled by a numerical argument that we may call

the *number of steps.* The number of steps is a constant passed to each instance of

ConvergentArray upon instantiation[4] that determines how many incremental additions or

subtractions (steps) must occur for each initial associated value to reach the target

value; fewer steps makes for faster, more abrupt convergence.

The number of steps is a critical value for computing not just the rate of

convergence, but also the shape of convergence. The shape of convergence concerns

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[3] see Larry Polansky, et al., "A Few More Words About James Tenney: Dissonant Counterpoint and Statistical Feedback," *Journal of Mathematics and Music* 5, no. 3 (2011).

[4] Instantiation refers to the creation of an instance of a pre-defined class or object. Here, the term signifies the creation of an instance of the ConvergentArray class.

the adjustability of the increment or *step value* added to, or subtracted from, the value at

a given index (associated value). To refer back to our dice-game analogy, we should

consider step 1 in greater detail. In step 1 we calculated a step value of 0.1 in the

following way: we divided 1 (which is the smallest difference between any two values in

the set of all associated values) by some integer greater than or equal to 1, for which we

arbitrarily chose 10. In fact, 10 served as an arbitrary value for the number of steps to

reach the target value. We may, therefore, formalize our calculation in step 1 by

providing the following generalized equation for the step value (v_s):

$$v_s = \frac{1}{N}$$

where N is a constant representing the total number of steps to reach a target value that

is ±1 from the initial associated value of a given index.

In step 6 of our dice game analogy, where we update the associated value of the

selected index in the direction of the target value, v_s does not change; only its sign

changes (as a matter of addition or subtraction) relative to the target value. We may,

therefore, consider the above equation as a parameter of the *growth function* that

specifies how all associated values are to be updated. The growth function described by

our dice-game analogy can be written in the following way:

$$f(x_i) = n_i \times \frac{1}{N} \times \left(\frac{T - x_i}{|T - x_i|} \right) + x_i$$

where x_i is the initial associated value of index i, T is a constant representing the target

value, and n_i is the number of times index i has been selected where $0 \leq n_i \leq N(|T -$

$x_i|)$. Essentially, we multiply the v_s by the number of times the given index has been

selected (n_i). This product (either positive or negative, depending on whether T is

greater than or less than x_i) is added to the value at index i (x_i). The growth function may be simplified thusly:

$$f(x_i) = \frac{n_i(T - x_i)}{N(|T - x_i|)} + x_i$$

We should notice here how the constant N does not ensure that the target value is reached in N number of steps for all associated values (x_i). In fact, N is only the actual number of steps when $T - x_i$ = -1, 1. If T = 5 and x_i = 3, then index i would need to be selected 20 times for x_i to reach T if we maintain that N = 10. To exert more control over the rate of convergence for the set of *all* associated values, we must change the growth function such that x_i for all i converge to T in N number of steps.

In the SuperCollider implementation, the growth function is changed accordingly; v_s varies proportionally with the difference between T and x_i, such that the number of times that i must be selected (n_i) for any associated value (x_i) to reach the target value (T) equals N for all i. In other words, any given index will have converged once n_i equals N. Accordingly, n_i, while necessarily greater than 0, is now bound on the upper end by N. This new growth function, the one that I have implemented in SuperCollider, looks like this:

$$f(x_i) = \frac{n_i{}^\alpha(T - x_i)}{N^\alpha} + x_i$$

where N is any integer, T is any rational number, and n_i is any integer between 0 and N inclusive. This function ensures that N establishes a universal rate of convergence, which we may define at the outset. The shape of convergence is described by the curvature of the growth function; $f(x_i)$ approaches T at a rate that is inflected by an exponential factor (α). A linear path towards convergence is defined by a power of 1

($\alpha = 1$), while some power greater than 1 defines an exponential path, and a power that is a fraction of 1 defines a logarithmic path. See Figures 6-3, 6-4, and 6-5 for graphs depicting outcome values generated using ConvergentArray with an exponential factor (α) of 1, 2, and 0.5, respectively. An array of integer values 1, 2, 3, 4, 5, 6 was used in order to provide a basis for growth function comparison with the preceding graphical representations of the dice-game analogy. All graphs converge to the value 5. This value was set artificially in order to further facilitate comparison.

Additional Modifications: It is also important to note that the ConvergentArray algorithm operates upon sets of rational numbers. Furthermore, decimals may be rounded upon output from the growth function according to a user-specified *quantization level* that is defined upon instantiation. In this way, computation proceeds with full decimal precision while allowing the user to determine if the resultant values need to be more or less exact.

All of the features implemented in the CovergentArray SuperCollider class also function in reverse, as a means to diverge the given value set. By simply counting backwards (from N to 0) the number of times a particular index is selected (n_i), a converged value set can be shown to diverge by using the same growth function. Accordingly, an infinite number of iterations (of converging and then diverging) may ensue, and an infinite number of computational modifications may be brought to bear on the parameters governing such behavior. Figure 6-6 provides a graph of a divergent trajectory and may be considered an inversion of the convergent trajectory shown in Figure 6-3.

Based on the behavior of the algorithm and the modifications discussed here, our ability to control a variety of parameters raise many questions about 'how', 'when', and 'within what bounds' we move to mathematically converge and diverge value sets. It is through our consideration of how the growth function changes values applied to sound synthesis that we encounter a multidimensional territory of possible change.

Object 6-1. ConvergentArray SuperCollider class as a text file (.txt file 3KB).

Object 6-2. SFRand SuperCollider class as a text file (.txt file 3KB).

Using ConvergentArray to control sound synthesis parameters

Once implemented, ConvergentArray is primed to modulate the parameters of sound synthesis in a way that is neither completely predictable, nor wholly chaotic. The way that I have sought to implement such functionality is to instantiate a new array for each defined parameter governing sound synthesis. Take for example the generation of a simple sine-tone. Immediately we may want to control the sine-tone's frequency and its amplitude. My response to this situation is to instantiate two ConvergentArrays; one governs the frequency of the sine-tone, the other the amplitude. Each parameter is thereby left to converge and diverge according to its own set of values, number of steps, and growth function exponent. Furthermore, each ConvergentArray may be updated with a new set of values independently. (This is usually best to do at a point of full convergence or full divergence.)

If we imagine a sample-based instrument or instruments with dozens of parameters, with each parameter being modulated according to a ConvergentArray, the set of possible appearances of the resultant sound is vast. However, if all the ConvergentArrays are operating entirely independently, chaos remains supreme. If only the ConvergentArray governing a sound's amplitude remains consistent, while twenty

other parameters vary indeterminately, the notion of consistency is itself perceptually indiscernible. Again, our goal is not merely to present chaotic change, but rather, to modulate the semblance of all sound being generated. So I have found it most effective to ensure that all parameters (or at least a high percentage of them) have converged before allowing them to diverge, and similarly, that they all should diverge before allowing them to converge. We can think of this as a gate in the algorithmically generative system that blocks all ConvergentArrays from proceeding (reversing course) until all parameters have fully realized their tasked trajectory. This ensures against disruptions in the gestalt appearance of sound as a result of ConvergentArrays falling drastically out of phase with each other.

As a result of convergent/divergent processes, aural appearances may shift in seemingly infinite ways—and not just as a matter of indeterminate selection, but rather, as the seemingly miraculous emergence and disappearance of some *telos.* As outcomes veer toward and then away from consistency (i.e. $f(x_i)$ yields T for all i), we are left with nothing but a sense of directionality that is itself wholly unpredictable and that forever seems to be lagging behind what the sounds (numerical values) are at any given moment.

Convergence in Action

Since 2009 I have implemented the ConvergentArray algorithm (as well as other convergent processes) in a number of works. However, it is only recently that I have realized how the placement of such works drastically affects what that work is. I have presented several musical experiments that use convergence of set as a principle, governing concept in concert hall settings. However, when this propositional music is presented in obvious relation to Music, it leads to nothing but misunderstanding. I have

taken great pain to write out detailed program notes that mathematically describe what is going on in my pieces or (at the very least) how different sound synthesis parameters are correlated. But such efforts (my attempts to condition the context of presentation and reception) hardly serve to reframe listener's divergent considerations when faced with my music.

However, when I thought to begin conditioning my work based on the context of its presentation (that is, addressing it ontologically rather than epistemologically), any lack of understanding regarding sound and how it was being generated no longer posed a threat. Instead, it became an opportunity to radically re-address vibrational sound's contingent status as being in relation to Music at all.

The 'Convergence' Exhibition

On September 13th, 2013, I opened a gallery exhibition featuring four new works at Stetson University's Hand Art Center in DeLand, FL. The exhibition, which featured several other works by two other faculty artists, was titled "Convergence."

Each of my four works consisted of visual and aural elements. Yet it was precisely the division between the visual and the aural in each work that functioned as leverage against any adherence to its ontological completeness. I will now briefly describe two of these works (which feature the use of ConvergentArrays) and provide some insight regarding viewer/listener reactions to each. In both of these works ConvergentArrays were used to change the appearance of sound by vacillating between consistency and chaos.

Because the position of each work in the gallery was an important consideration, Appendix B provides documents depicting the floor plan of the Hand Art Center and the positioning of each work. In the discussion of each work, I describe how a visitor

encounters the work in the context of the gallery. Please refer to Objects 6-3 and 6-4 for

the SuperCollider code used to generate the audio for *Mildly Sympathetic*

Conversationalist and *Given the Materials at Hand*, respectively.

Object 6-3. Mildly Sympathetic Conversationalist zipped archive containing six text files
        (.zip file 23KB).

Object 6-4. *Given the Materials at Hand* zipped archive containing four text files (.zip file
        20KB).

Piece Number One: *Mildly Sympathetic Conversationalist*

   Experiential description: As visitors to the Hand Art Center (HAC) enter the

exhibition space and proceed past the reception area, one of the first things they see is

an acoustic guitar resting on a stand atop a white pedestal. Above the guitar are two

microphones in a stereo configuration with cables attached running down the guitar

stand and disappearing behind the pedestal. Rather than facing the front door of the

gallery, the guitar is positioned against the right wall of a long entrance corridor and

faces the opposing wall (to the visitor's left). Visitors must move around the guitar,

approaching the work from its right side, in order to stand in front of the guitar's sound

hole. This movement on the part of the visitor often generates a slight bit of sound—the

sound of footsteps and perhaps the shuffling of clothing. The sound produced by the

visitor is picked up by the microphones and serves as input to a real-time generative

sound system.

   As visitors move around the guitar to face it two things occur (not necessarily in

the following order) which make the visitor acutely aware that the guitar is not just a

guitar. First, the visitor may realize that the guitar may produce sound in response to the

sound the visitor makes by physically moving around the object, approaching it, or even

talking/vocalizing within some proximity to it. The input gain of the microphone source is

turned up rather high, so the object is sensitive to even small changes in sound intensity. The sound that the guitar produces resembles (is a semblance of) the timbre of a guitar. However the sound the visitor hears is also more complex; it seems to stretch the bounds of its causal source, an acoustic guitar, by appearing at times more electronic or synthetic. Also, the more visitors engage with the guitar, by making incidental or even non-incidental sound within its vicinity, the more the guitar responds by producing its own sound. Yet, the guitar's response changes over time. Long, pure tones with consistent pitch may ring for some time and eventually fade out into silence. The guitar may even seem non-responsive, but then (for apparently no reason whatsoever) the guitar will react more chaotically. Furthermore, for those who listen, the intonation of the guitar's response will appear to change as correlated with a change in the abruptness of its articulation. The guitar is sometimes consistent in its pitch and harmonicity of articulation, while at other times, the sound produced is radically divergent. It is also important to note that the visitor will most likely notice that the sound generated by the guitar is not coming out of independent speakers placed relative to the guitar. The sound emanates from the guitar itself, apparently directly from its resonant body.[5]

Second, the visitor will notice a flat computer monitor on a stand placed to the left side of the guitar. The guitar is not just a guitar, nor is it a guitar that is just vocalizing in response to some input audio signal; it is a guitar that writes what appears to be musical notation in real-time on the computer monitor. The monitor presents a grand staff on

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[5] The guitar does, in fact, serve as the resonating body for all electroacoustic sounds being generated. This is accomplished by using two tactile transducers (HiWave HIAX25C10-8/HS 8-ohm exciter) mounted to the back of the soundboard. Each transducer is powered by a 7-watt mono amplifier.

which colored note-heads (without specified duration) appear in correspondence with the sounds being generated by the guitar (see Figure 6-7).

Functional description: The guitar's status as a static, whole, or fully-constituted art object is thus undermined by its own relation to the context of presentation and modalities of visitor access. The guitar is not completely anything—it is not a physical art object, nor a piece of music in and of itself. It is not solely an electroacoustic interactive toy, nor is it a device for musical transcription, and so on. Any one *functional* determination regarding its being is revealed to be unavoidably incomplete. The work is titled and a (purposefully vague) instruction appears on the gallery pedestal as well, which reads: "Touching Allowed." It is presented as necessarily being in relation to Art given its gallery setting, but the work undermines that very same necessity, by presenting an ontologically fractured nonobjective art. It is not 'really' for our *visual* consideration, nor is it 'really' a piece of concert music or an instrument to perform upon; it is, in reality, incomplete.

Assessment of visitor reaction: At the exhibition opening, visitors appeared to be most drawn to the guitar out of the four works I presented, though visitors seemed reticent to fully engage with it in a tactile way. Visitors would often reach out to touch the strings, arbitrarily strumming or plucking them, but not a single person picked up the guitar off of its stand. It was not fully an instrument to be played like an instrument of Music (which it nevertheless clearly was, on some level). I also noticed that predominately younger (undergraduate-aged) students were most intrigued by it, while older, more senior professionals associated with the University steered clear of it. I have had several people mention to me since the opening that they found the guitar piece

186

intriguing specifically because they needed to figure out what it's responses were. See Figures 6-8 and 6-9 for photographs of the work.

Piece Number Two: *Given the Materials at Hand*

Experiential description: As a visitor walks further into the gallery, she passes between two entries into other gallery spaces and comes to the end of a hallway with a recessed closed doorway to the right and an open traffic area to the left. Six panels are hanging on the opposing wall at the end of the hallway, such that the hallway appears to frame them.

The panels are large rectangles hanging nearly level and extend from the wall about four or five inches. They are about two feet by five feet and covered with a beige lightweight, almost sheer fabric. Each of the panels has text written on it covering up the majority of its surface. The text is black and appears to be hand-written—upon closer inspection, it looks painted. As the visitor steps into the space in front of the panels to read them, she notices the words do not follow any syntactic rules. Some words make sense in relation to each other, but most words do not. As she begins to consider the text across the panels, she may realize many words appear to repeat, and some of them are specific or suggest literary interpretation, like "microexpressions," "constellation," and "hue-streams." Furthermore, some punctuation marks appear to be attached to particular words, since they appear following the same word across the panels.

While in the open space and in front of the panels, a visitor might begin to hear sounds of high-pitched percussive material, some string instruments, and even piano. The sounds might be rather loud, or perhaps soft. They might also be noisy and chaotic, but if the visitor waits in the space for several minutes, they may shift towards a slower

regularity. If the visitor moves into another room to consider other work and then comes back, then the sounds might be wholly different, perhaps fast regular repetitions of only a particular piano chord. If the visitor waits again, then the sounds may shift toward slow muted guitar glissandi between nine and ten particular pitches, and then drift off from there. If a visitor attends to localizing the sound, she will realize it is coming from behind her while she is facing the panels.

As the visitor approaches the work, the source of sound is not obvious since the speakers producing the sound are tucked just around the corner of each side of the hallway from which she approaches; visually, the panels are the work's only focus. Once the visitor steps into the space at the end of the hallway, she may identify the presence of sound and turn around (to face back down the hallway). Once she turns around, she will see two speakers—one on either side of the wall that frames the hallway space. Each speaker is placed on gallery pedestals and positioned so the sound is focused towards the center of the space between the panels and the speakers.

A visitor might alternately approach the work from the left side of the panels, since there is an open traffic space in that direction. In this scenario, a visitor walks into the space between the speakers and the panels (speakers on the visitor's right and the panels on the left) and has two options: turn left and read the panels, or continue walking through the hallway, turn right, and notice the speakers. If this visitor notices the speakers, she might then search for the appearance of sound; she might think to listen.

Functional description: The panels do not just provide a rectangular surface for the text, they are acoustically absorptive panels, made from 4-inch thick, 8-pound mineral wool. Thus, sound reflections are supressed as the visitor considers the panels.

The visitor must choose to turn around to hear more precisely the sonic component of the work, because the sound itself does not appear to emanate from the panels; it is explicitly distinct.

The visitor who returns to a consideration of the text appearing on the panels may then begin to seek to identify pattern governing the repetition of words across the panels. Moving from left to right across the panels, the same words appear in different sequences but syntax does not seem to be more or less preserved in consideration of one panel versus another in the first five panels. In panel six (the last on the right) all of the same words appear, but in an order that is syntactically correct (i.e. readable). In Appendix C the text is provided for each panel as well as a short description of how the text was generated.

Regarding the whole work, the visitor is ultimately presented with three elements, each of which interferes with the other two. First, the sound is only coming from behind the visitor who visually notices and attends to the panels. Second, the text appears meaningless (devoid of content), but in consideration of its repetitious presentation/variation across the six panels, suggests pattern—though it is a pattern that is not obvious. Third, the panels themselves might initially appear as though they are traditional art-objects, perhaps with a canvas surface, while closer inspection reveals that they are not; being made of acoustically absorptive material covered in a thin, breathable fabric, the panels appear to have been intended to oppose the sound. The work as a whole does not seem to be entirely knowable. Rather, as a result of the divergent appearances of the work's various components, visitors encounter their own inability to address it as being whole; the work is perceived as nothing but a series of

irreducible gaps between its components. A visitor's inability to *know* what the work means, its presupposed *singular* meaning, comes as a result of the visitor's own inability to perceive what it actually *is.* The absence of singular meaning is thus not a mark of our finitude, but of the ontological incompleteness concerning the work *being* any consistent thing.

Assessment of visitor reaction: Visitors seemed to react to the piece in a number of ways. One common reaction was for visitors to find difficulty identifying or associating the sound materials as part of the piece at all; they were simply not noticed. Sound may have gone unnoticed by any particular visitor for two reasons. First, the generative sound processes may have (in reality) *converged* toward silence (an amplitude of zero). Second, the visitor may have simply failed to consider sound as being a functional component of the work. In the first case the apparent absence of sound being part of the work is a failure to hear, while in the second the absence of sound reflects a failure to listen (again, the difference between the eye and the gaze).

Often visitors approached the text and attempted to read it by starting from the furthest left panel, slowly working their way down and across. In most cases, the visitor gave up attempting to parse the text between panels two and three (counting from the left). At this point, the visitor either walked away or stepped back in an attempt to assess the panels in their entirety. To position herself to be able to see all the panels in their entirety, the visitor also steps into the 'sweet' spot regarding the stereo image of the generative sound material (while still facing away from the speakers). Visitors often remained fixated on the text, trying to draw connections between word repetitions

190

across the panels, and only turned around to face the speakers at the point when they began to leave the work by proceeding back down the hallway.

No one "figured out" the pattern governing the text, but many tried. Nor were visitors, upon their failure to find *the* pattern, supplied with any confirmation of its existence. Some people identified the consistency and regularity of the sound at times, but also made sure to note that it changed and was at times chaotic. Many people seemed to confront their own frustration regarding the text's illogical (and then, on the sixth panel, logical) appearance. A few people considered the sounds a reflection of the inscrutable pattern governing the text. See Figures 6-10 and 6-11 for pictures of the work in the Hand Art Center gallery.

Final Thoughts

According to the priorities I have laid out across the entirety of this text, the exhibition was (for me) a success. My own compositional priorities rely on a capacity for my work to be entirely overlooked, to necessarily be misunderstood in its being a complete work at all, and yet to nevertheless retain the possibility to appear in relation to Music for no reason at all. It is the mere possibility of music that should be considered in light of all the reality we find ourselves in. The place in which we listen is always changing. The sounds that we hear are always changing. No one acoustic signal or sonic appearance is impervious to such contingency, the contingency of the place and our taking of it.

The capacity to listen (and not just hear) is miraculous in and of itself (is this not precisely what Cage taught us?). Yet, we should ask, with what necessity do we listen? In what places do we listen? Again, we may only find our own contingent capacity to listen differently.

Music should be shown to arise despite the concert hall, not because of it. Such a *speculative* prerogative in no way undermines the intentional musical explorations of others, but rather, ultimately seeks to confront the *hard problem* in its musical guise: what forces us to pick ourselves up by our own bootstraps, to become a listener by retroactively positing the presuppositions of listening? To investigate this question and to mark such an investigation through material intervention is to propose a speculative music. This is our task.
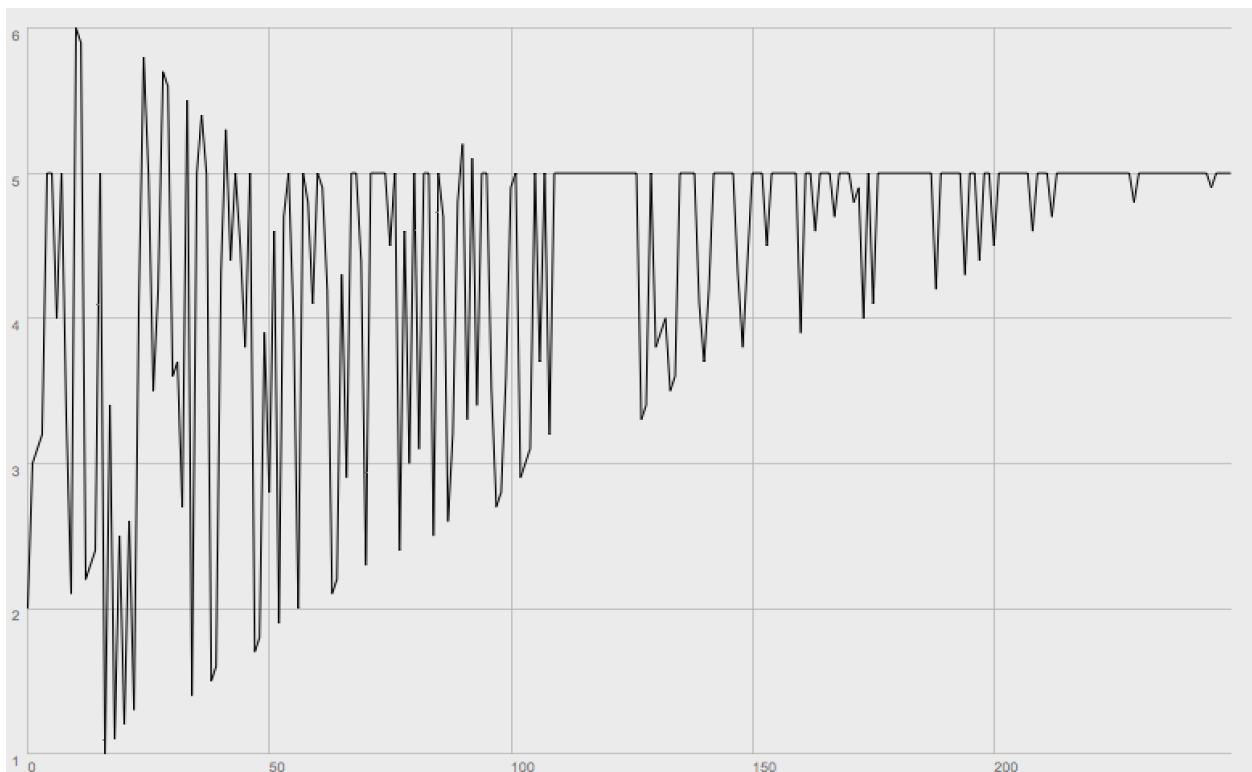
Figure 6-1. Convergent dice-game: associated value outcomes for 250 dice-rolls.
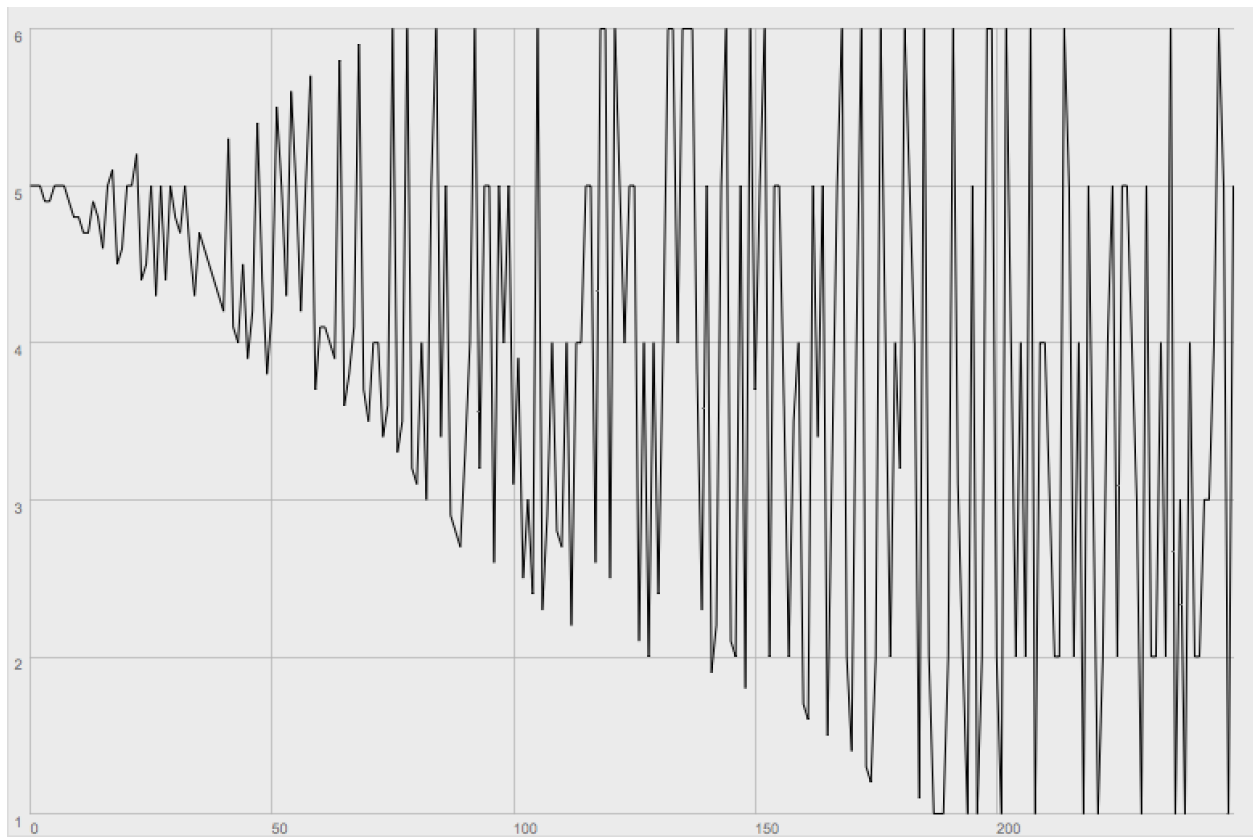
Figure 6-2. Divergent dice-game: associated value outcomes for 250 die-rolls.
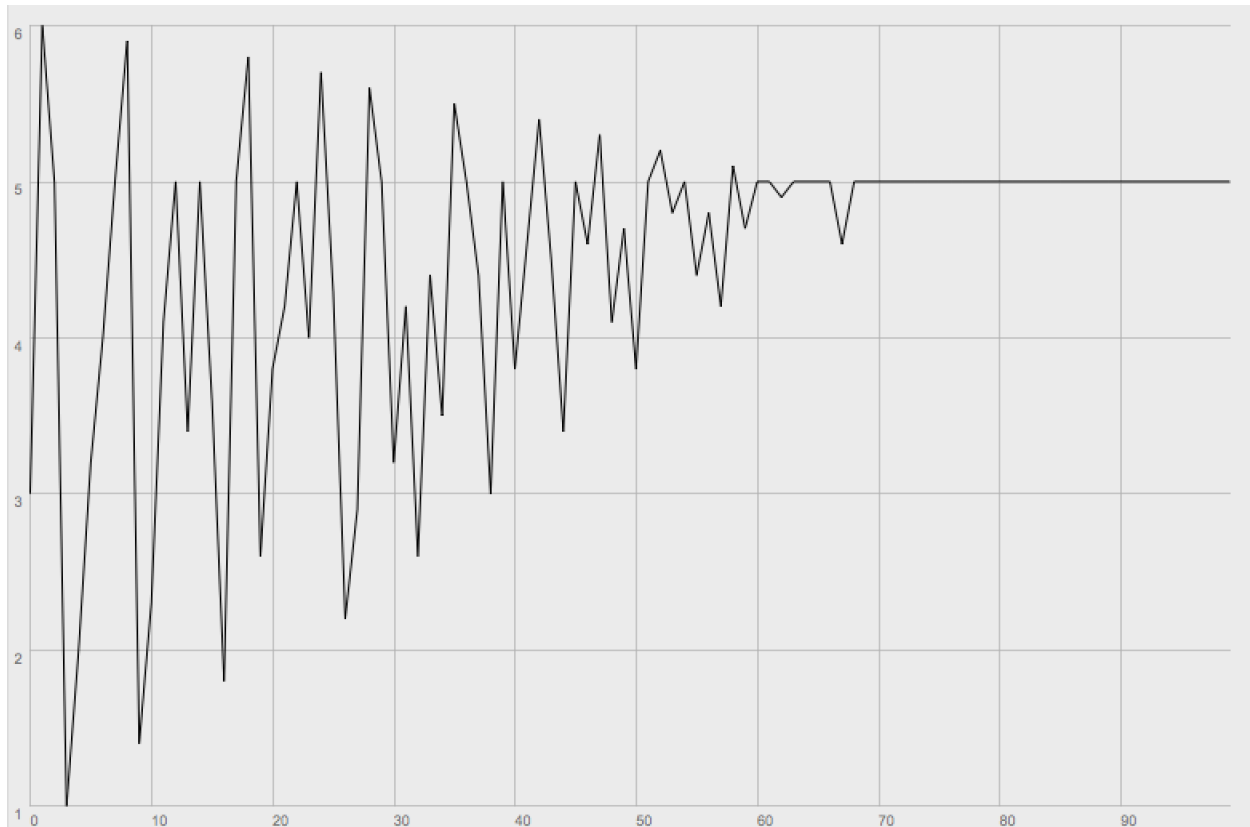
Figure 6-3. ConvergentArray: values [1, 2, 3, 4, 5, 6] converging across 100 iterations ($N = 10$, $\alpha = 1$, quantization level: 0.1).
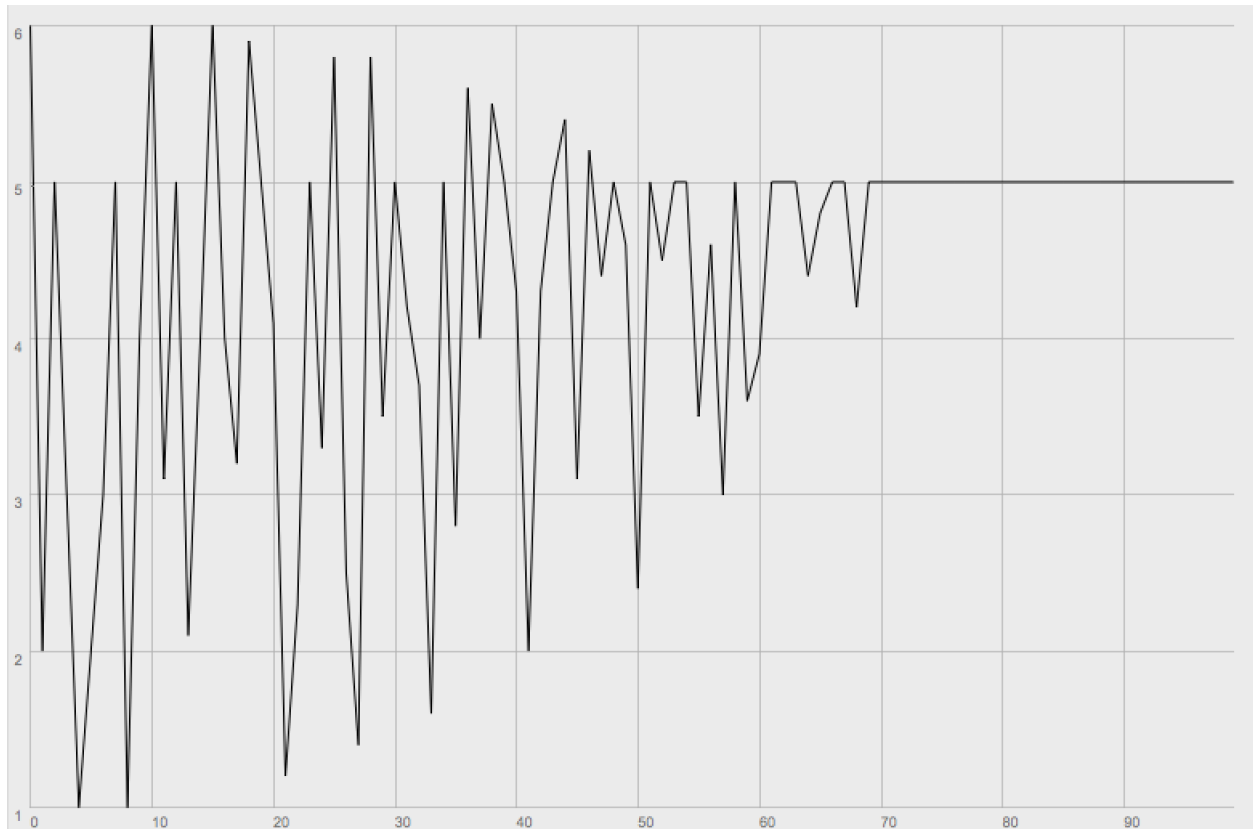
Figure 6-4. ConvergentArray: values [1, 2, 3, 4, 5, 6] converging across 100 iterations ($N = 10$, $\alpha = 2$, quantization level: 0.1).
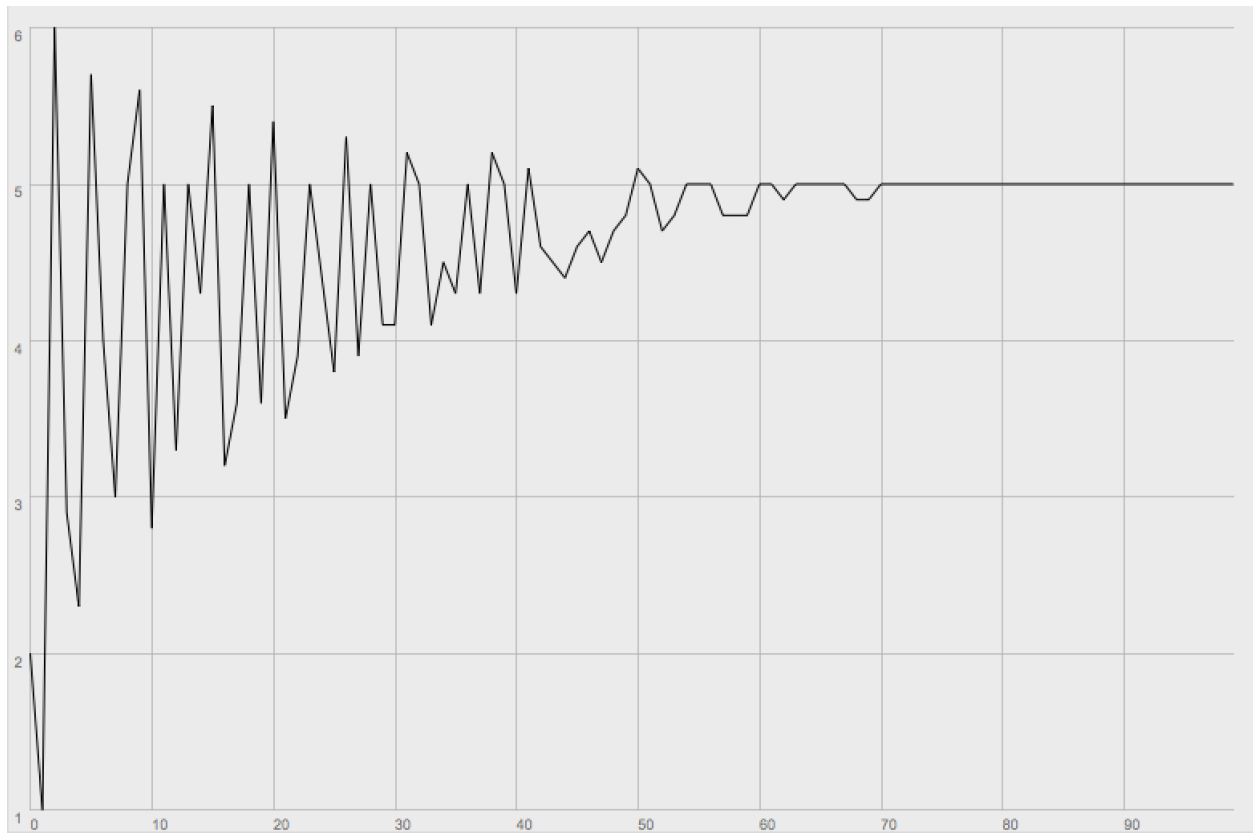
Figure 6-5. ConvergentArray: values [1, 2, 3, 4, 5, 6] converging across 100 iterations
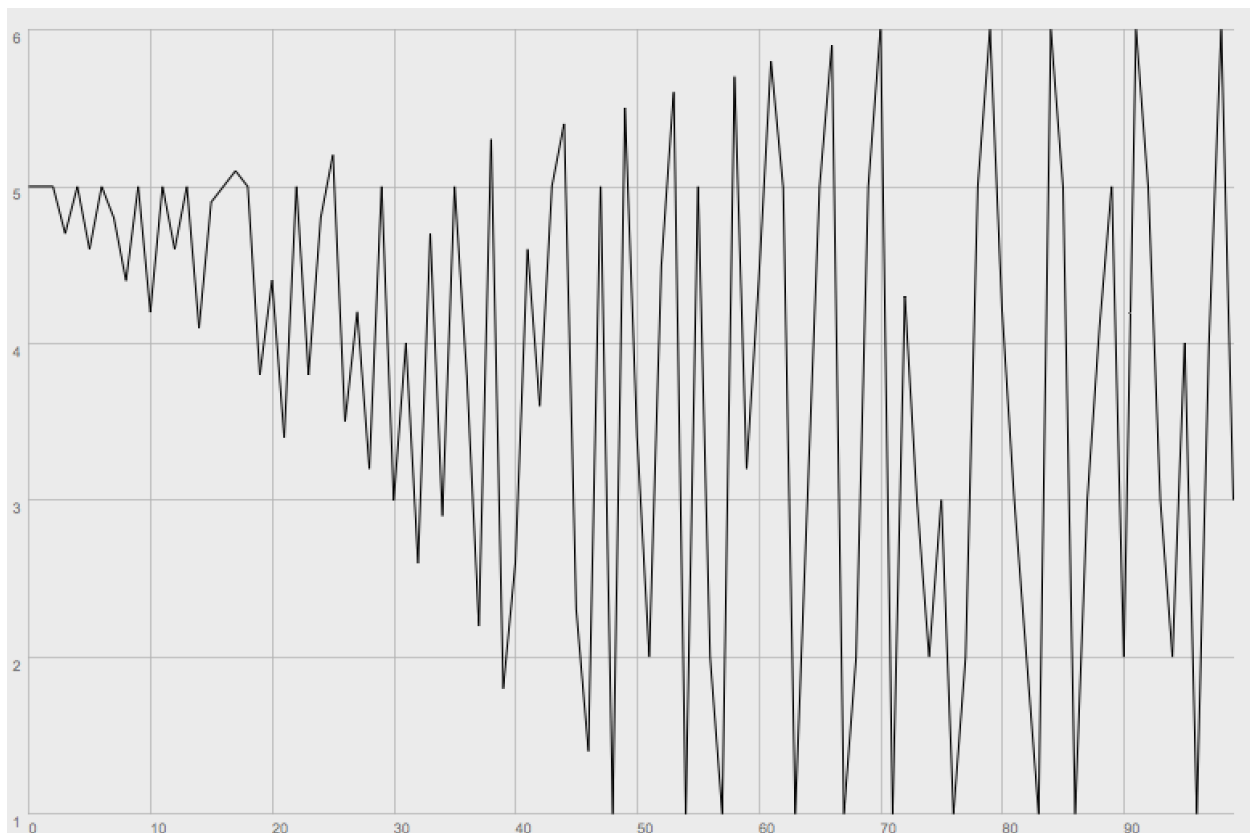($N = 10$, $\alpha = 0.5$, quantization level: 0.1).

Figure 6-6. ConvergentArray: values [1, 2, 3, 4, 5, 6] diverging across 100 iterations (N = 10, α = 0.5, quantization level: 0.1).
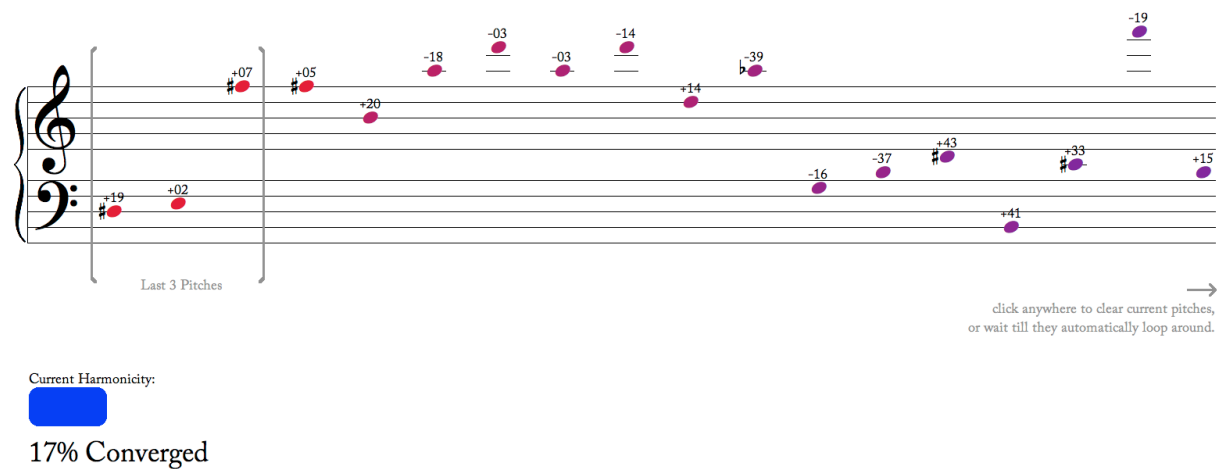

Figure 6-7. Screenshot of real-time notation generated by *Mildly Sympathetic Conversationalist.*

Figure 6-8. *Mildly Sympathetic Conversationalist*, viewed from front-right. (Photo courtesy of author, Sean Peuquet)

Figure 6-9. *Mildly Sympathetic Conversationalist*, viewed from front-left. (Photo courtesy of author, Sean Peuquet)

Figure 6-10. *Given the Materials at Hand*, viewed from corridor entrance. (Photo courtesy of author, Sean Peuquet)
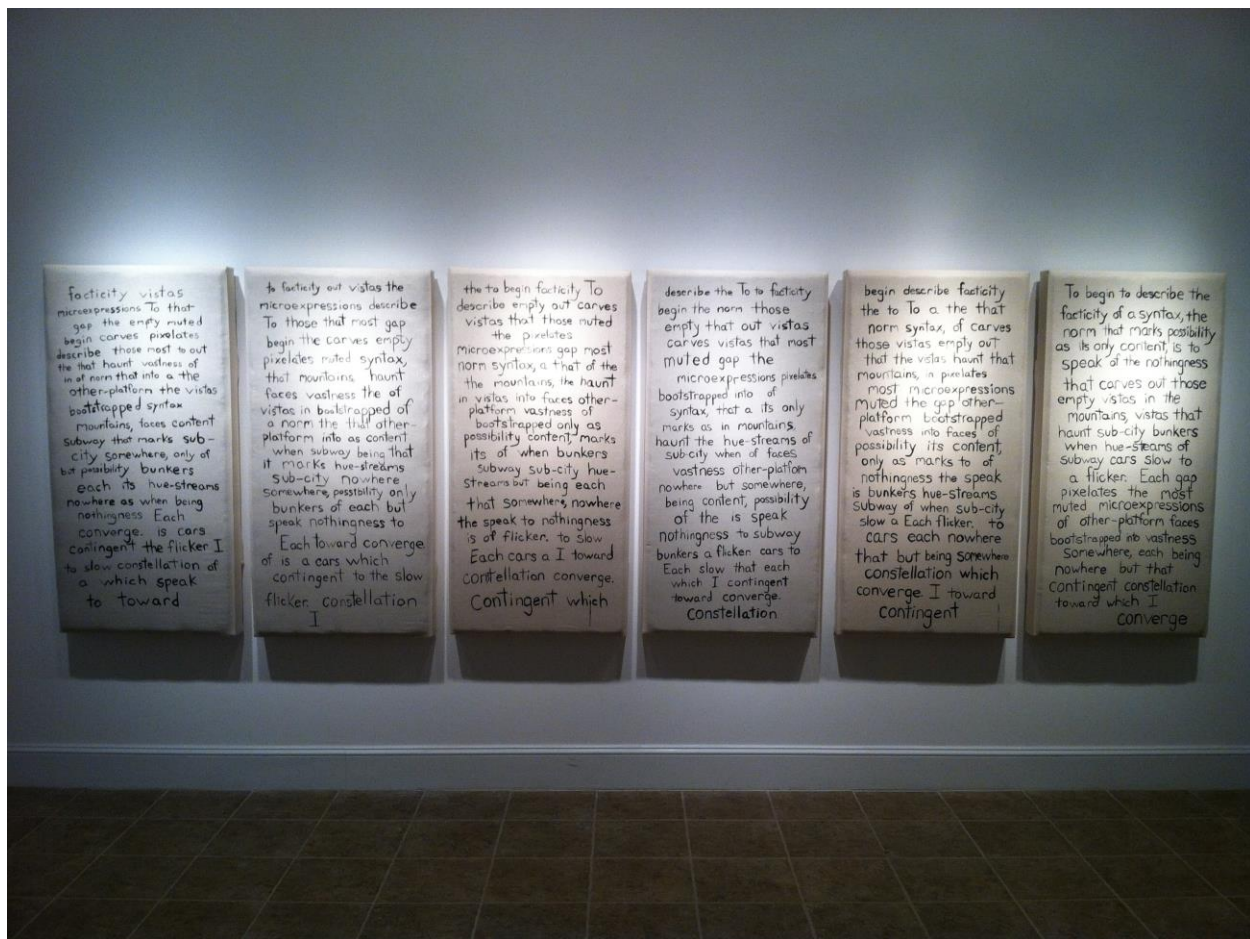
Figure 6-11. *Given the Materials at Hand*, viewed from directly in front. (Photo courtesy of author, Sean Peuquet)

APPENDIX A
MUSICAL SCORE FOR *WINDOWS LEFT OPEN*

Windows Left Open

for microtonal ensemble and electronics

Sean Peuquet

2010

Conceptual Notes:

Generative Pitch Structure

The piece sets the pristine character of algorithmically generated material against the backdrop of a nature preserve soundscape (Florida's Payne's Prairie), the combination of which serves to inform the performance of live musicians. The expanding palette of just-intoned pitches are derived from scales generated by successive branching from the harmonics of a given frequency (fundamental) for each section. The harmonics of each section's fundamental are introduced sequentially as potential reference frequencies (tonics), which when multiplied against members of an expanding set of just-intoned ratios (increasing in complexity), generates a number of just-intoned diatonic scales. Therefore, scales are related to one another only on the basis that each tonic is a member of the same harmonic set. Within each of the piece's five sections, scales branch off of the harmonics of the fundamental in a non-deterministic way. Tonics for each scale, and the particular collection of scale degrees, are sequenced using a random selection algorithm with statistical feedback in order to vary the juxtaposition of both scales and scale degrees, cutting down on direct repetitions.

Placing Material in Time

Each section can be understood as a canon, wherein voices enter according to some temporal offset. Each voice explores a unique scale (built off of a particular harmonic of the given fundamental for the section, as described above). Note durations within each voice are also selected randomly, using statistical feedback. Durations are chosen from a set of proportional values relative to an underlying tempo for the section. Durations are chosen until a specified metrical block of time is filled precisely. Between successive voices within a section, this metrical block is zeroed out, and its size increased by adding a constant value. Voices, once introduced, repeat for a while, and then stop. The number of repetitions is inversely correlated with the voice's temporal offset. This process results in the accumulation of material and its subsequent slow decay across the section.

Soundscape as Confound

Attending to algorithmic process is however not the piece's aesthetic focus. Five soundscapes (one for each section) recorded at different places in the Payne's Prairie Nature Preserve are also heard, and provide a backdrop for the computationally derived instrumental sounds. By layering/juxtaposing the algorithmic material with soundscape recordings, a disjunct emerges. This disjunct becomes the main focus of the work, a gap between harmonicity and inharmonicity that live performers must bridge. In this way, the electronics are not proffered as an accompaniment to live performance, but rather, a sufficiently interesting and nuanced musical supposition intended to elicit a meaningful musical engagement on the part of the performers.

An Argument for Performance

In live performance, a small chamber ensemble of two or more instruments capable of playing microtonal pitches mediate the disjunct between algorithmically derived instrumental sounds and the background soundscapes. For each section of the piece, the score presents musicians with the sequence of voices, and the sequence of pitches within each voice, they will hear in the electronics. Musicians then listen to the electronics and choose how and when to match pitch, playing softly when they are confident about their intonation, and loudly when they are less confident. By attempting to match pitch, while improvising articulation, rhythm, and dynamics "in tune" with how they hear the electronics and each other, performers begin to place themselves somewhere between the indeterminate characteristics of a soundscape and the computational, harmonic purity of the algorithmic processes. Through performer interaction with the electronics (listening and voicing) the algorithmic material becomes infused with a degree of dynamism, performability, and presence that would otherwise be absent.

Live performance marks a point of tangency between how we hear the world and how we model it. It should be reflective of a deep reciprocity between listening and voicing. *Windows Left Open* presents such a tangency directly, allowing the reciprocity inherent in our aural engagement with the world to come to the fore. In this way, performer musicality becomes contextualized as a larger exploration of "natural" phenomena. By leaving performers to engage with the piece's sound world on their own accord through microtonal pitch matching and aural feedback, the nuance of performance itself highlights a reasonableness for juxtaposing soundscape and algorithm. Through our awareness and sensitivity to performative provision, response, and imprecision, us listeners begin to take a few tentative steps towards situating ourselves somewhere between the two.

Performance Instructions:

Instrument Considerations

The ensemble should be comprised of instruments capable of playing microtonal pitches. While the ensemble may have any number of instruments, two or greater, the dynamic level of the ensemble and the electronics should be balanced. Relatively small ensembles between two and eight instruments are ideal.

This score functions for all instruments. The range of pitches notated fall within the range of the ensemble, not the range of particular instruments. When encountering a pitch that falls outside the range of a particular instrument, simply ignore it, choosing not to play that pitch. Choosing to play octave transpositions are acceptable, but only by one octave above or below the notated pitch. Octave transpositions should be used sparingly on a note by note basis (don't transpose an entire collection of pitches); reserve them for particular pitches. All pitches are notated at sounding pitch.

This all said, string instruments work well (including guitars). Trombones are fine but, depending on the other instruments, cause some difficulty in trying to maintain an equal dynamic level across the ensemble.

Form

The notated score (opposite page) is broken into five sections. These five sections correspond to the sections audible in the electronic part, which are separated by brief silence (2 seconds or so). For each of the five sections (each of which is a canon), the score shows the onset sequence of particular voices heard in the electronics. A vertical dashed line and some extra horizontal staff space is provided between notated pitches to indicate the arrival of a new voice. These lines do not mark measures and do not exist strictly in time. Rather, they define the pitch collection for a particular voice. The pitch collection is then presented according to the order in which each pitch is heard in the electronics. The onset of each unique voice is therefore understood to be delayed in time from the previous voice. In the electronics, once a voice is introduced it then repeats independently for a while (with different timbres and articulations), and eventually stops. Within each canon/section, the order in which voices stop is the same as the order in which they enter (the first voice to enter is the first to stop).

Pitch-Matching

The notated score is a reference for all of the pitches that are heard in the electronics part. Each performer must listen to the electronics and decide when and how to play his or her instrument, each time trying to match a particular microtonal pitch. Notated pitches should not be read strictly in time, but rather, as collections comprising a number of possible pitches one might hear, attune to, and then play. In this way, reading the score is to search for an aural engagement with the electronics. Not all pitches need to be played by a given instrument, nor should they be. Instead, performers should try hard to play pitches that no one else can play, considering the range of each of the instruments in the ensemble. This is particularly true of lower register pitches, of which there are relatively few. Feel free to look ahead, anticipating upcoming pitch collections, or linger behind, continuing to articulate a pitch that has recently passed in the electronics.

Dynamics

Performers should individually adjust dynamics on a note by note basis according to their degree of confidence in intonation. Dynamics should be related to pitch confidence, such that:

  for the most confident pitches, play *ppp*
  for the least confident pitches, play *f*

This seems counterintuitive, but sounding "wrong" (imprecise intonation) should be perceived as a confident action. The piece isn't about being "right," its about finding "right." Being assuredly wrong and then gently correcting will result in listeners perceiving a much more confident/intentional performance.

Articulation

Articulate freely, so long as a high level of pitch precision is still discernible, and remains the focus. Articulation should demonstrate a degree of aural sensitivity to the electronic part as well. Glissando/bend freely, with the aim of achieving higher pitch precision. Vary articulation as a means of playing with timbre. Articulation should be differentiated enough such that listeners are intrigued by relative harmonic and inharmonic contrasts without loosing focus on the fact that pitch-matching is the goal, and drives the performance of the work. When comfortable with the pitch-matching component of the piece, allow for the sounds of the background soundscape to influence articulation as well. Don't over-articulate; be sensitive to the timing of sounds heard in the electronics. Choose to articulate notes sparingly, at times indulging in small flourishes/clusters of activity and then pausing to wait/listen. Again, not all notated pitches should be played; pick and choose.

Ending note about improvisatory aspects

Obviously, there are some things the score specifies, and some things it does not. Namely, the notated score makes pitch and form a priority while treating instrumentation, dynamics, articulation, rhythm (choosing *when* to articulate notes) as rather fuzzy. This fuzziness is delegated to the performers, who must make (musical) decisions within the boundaries of directed improvisation outlined above. In this way performers bring a great deal to this piece, not only in terms of technical proficiency on their instrument, but also in terms of their own individual musicality.

As an ensemble of semi-improvisors, it therefore becomes important to reach another level of listening, one that lies beyond the precepts of the score. It becomes important to listen to each other too. Mimicry, contrast, response, etc. are all viable modes of interaction between players attending to each other as well as the same aural canvas which frames their interaction. Ideally, an ensemble performing this piece reaches this level of attention and sensitivity.

Windows Left Open

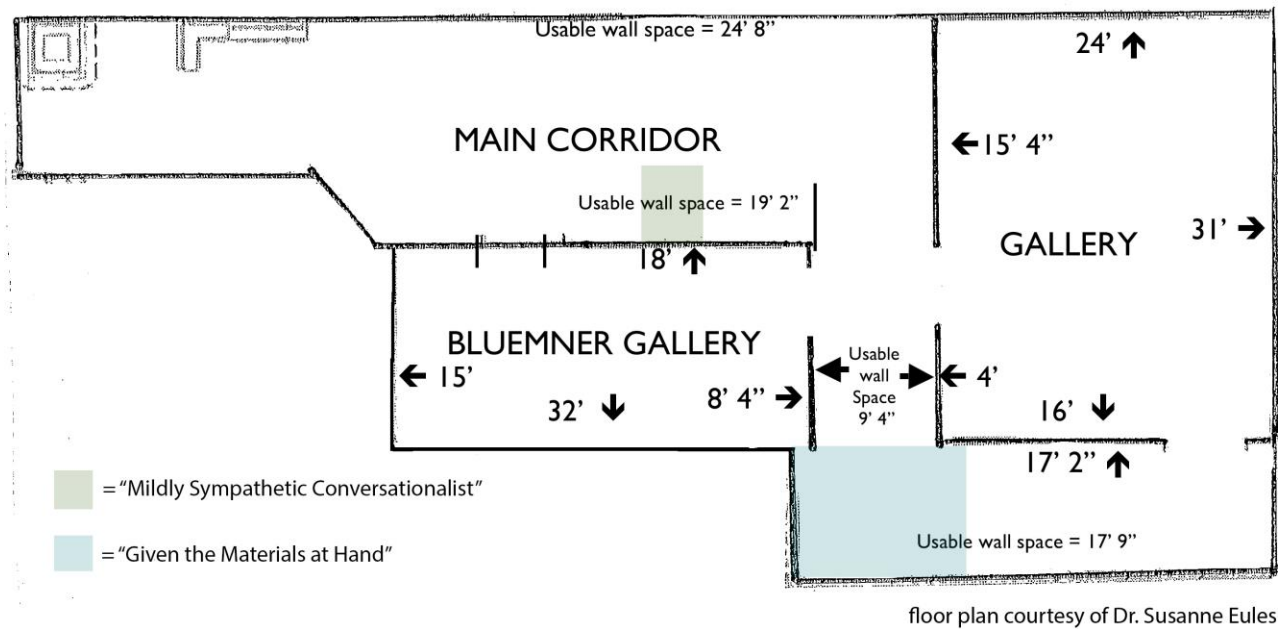Sean Peuquet

December, 2010

Figure B-1. Hand Art Center: plan view of gallery wall space depicting placement of works. (Portion of the figure provided by Dr. Susanne Eules)
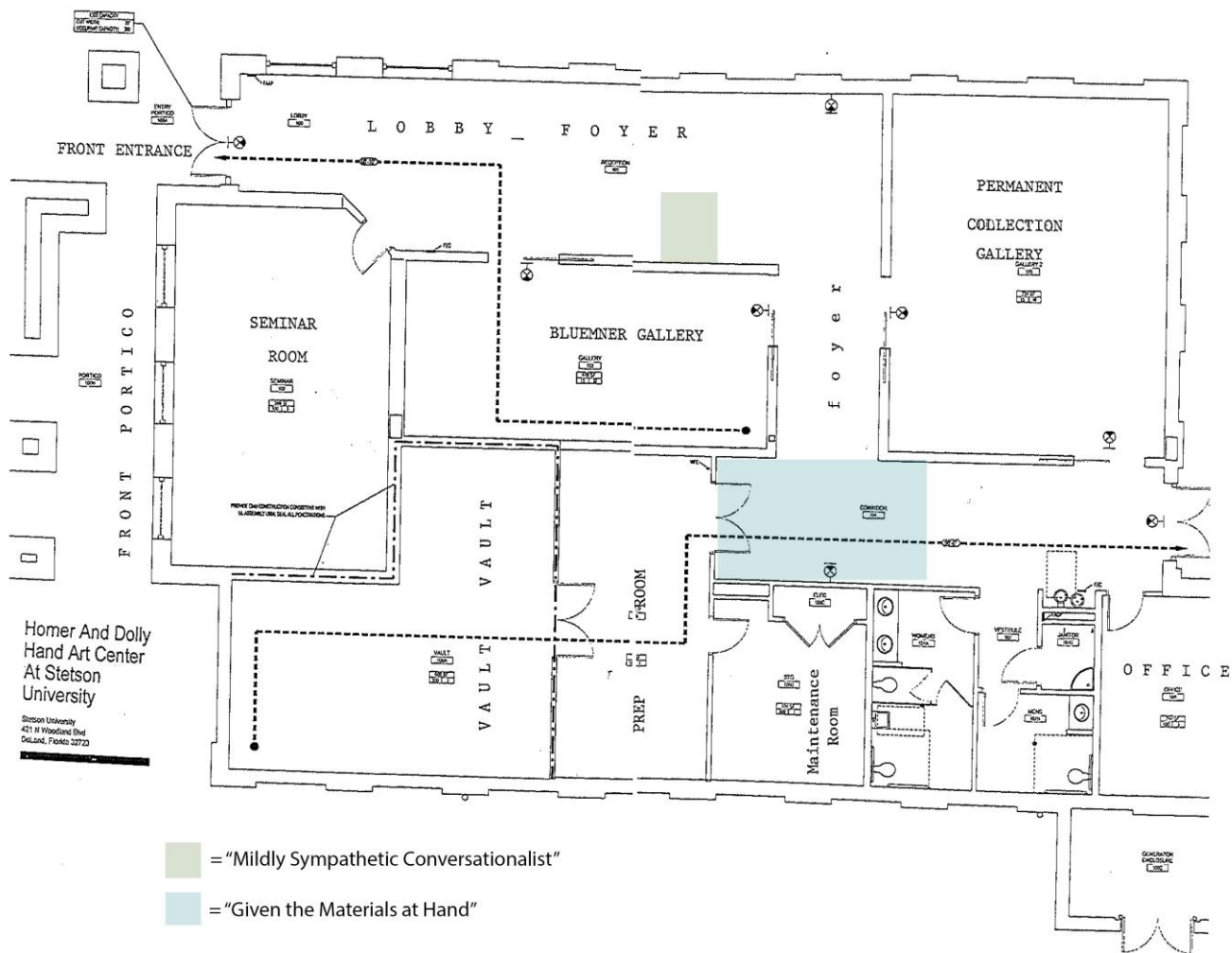
Figure B-2. Hand Art Center: architectural plan view depicting placement of works. (Portion of the figure provided by Dr. Nathan Wolek)

I algorithmically generated the text that appears on the acoustic panels that are a component of *Given the Materials at Hand*. I permuted the sequence in which words appear in an initial passage of text to generate five additional passages. The initial passage was both input to an algorithmic function and also that function's ultimate output. However we wish to look at it, the initial passage of text is written on the sixth panel in the gallery exhibition (counting from the left). The initial passage is as follows:

> To begin to describe the facticity of a syntax, the norm that marks possibility as its only content, is to speak of the nothingness that carves out those empty vistas in the mountains, vistas that haunt sub-city bunkers when hue-streams of subway cars slow to a flicker. Each gap pixelates the most muted microexpressions of other-platform faces bootstrapped into vastness somewhere, each being nowhere but that contingent constellation toward which I converge.

All of these words appear on each of the other five panels but appear in a different sequence on each one.

I will now describe how the words were re-sequenced. First, the initial seventy-two word sequence was split into twelve sequences (sets) of six words each. Each of the twelve sets was assigned to a particular alphabetical character (a, b, c…), which we may use to refer to a given set. We may, therefore refer to the original sequence of seventy-two words symbolically as the set of six-word sets described by: [a, b, c, d, e, f, g, h , i, j, k, l]. Next, each six-word sequence was permuted according to what I call the *sestina* algorithm (historically referred to as the *retrogradatio cruciate* procedure—the reverse 'cross').

A sestina is a poetic form that stipulates a particular word repetition pattern for end-words, or the last word for any given line (teleuton), across six six-line stanzas (plus

a short three-line tercet called an *envoy*). In a sestina, there are only six unique words that ever appear as end-words ($n = 6$); the line on which each end-word appears (k) is permuted for successive stanzas (beyond the first) in a precise way. If we attach a number to each of the six end-words according to the order in which each appears in the first stanza (1, 2, 3, 4, 5, 6), we can easily visualize the pattern that permutes end-word sequences for each stanza (see Table C-1).

Table C-1. Sestina form, shown as numbered end-word sequences for each stanza.

Stanza	Sequence of End-Words
I	1, 2, 3, 4, 5, 6
II	6, 1, 5, 2, 4, 3
III	3, 6, 4, 1, 2, 5
IV	5, 3, 2, 6, 1, 4
V	4, 5, 1, 3, 6, 2
VI	2, 4, 6, 5, 3, 1

We can describe the pattern shown in Table C-1, the pattern that generates the sequence of end-words for each successive stanza beyond stanza I, in a general way. To generate the sequence of end-words for any given stanza, we first split the previous stanza's set of six end-words ([1, 2, 3, 4, 5, 6]) in half to generate two sets of three end-words ([1, 2, 3] and [4, 5, 6]). Next, we reverse the end-word order for the second set of three end-words ([4, 5, 6] becomes [6, 5, 4]). Finally, we then interlace the two sets of three end-words starting with the first word in the second reverse-ordered set, giving us [**6**, 1, **5**, 2, **4**, 3] where the bold numbers represent end-words from the second reverse-ordered set. Given an initial set of six end-words, this repetition pattern has a cycle of

six stanzas, after which, the pattern repeats. If we were to continue, stanza seven would yield the following sequence: 1, 2, 3, 4, 5, 6. We may define the permutation using mathematical notation in the following way:

$$\begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 \dots \\ n & 1 & (n-1) & 2 & (n-2) & 3 \dots \end{pmatrix}$$

$$f_n(k) = \begin{cases} 2k, & k \le \dfrac{n}{2} \\ 2n + 1 - 2k, & otherwise \end{cases}$$

Here, n refers to the number of elements in the initial set, which for a sestina always equals six. (However, the permutation may be applied to sets with any number of elements.) And the other variable, k, refers to a given element's position.

For *Given the Materials at Hand*, each of the twelve six-word sequences (a, b, c…) was permuted according to the sestina algorithm across each of the six panels (once for each panel, such that the panels were treated as equivalent to stanzas). Accordingly, every word of the original text was treated like an end-word in a sestina. As a result, each of the twelve six-word sets appears once on each of the six acoustic panels following a different permutation each time. While the panels may be loosely considered as stanzas, the order of panels (their placement on the gallery wall) differs from a sestina. The sestina repetition pattern was shifted by one panel so that the words appear in syntactic order (1, 2, 3, 4, 5, 6) on panel six (instead of panel/stanza one).

Finally, another process or pattern overlapped with my implementation of the sestina algorithm. For each given panel, the twelve six-word sequences (a, b, c… each being independently permuted according to the sestina algorithm) were concatenated to generate a sequence of all seventy-two words. The new seventy-two-word sequence was then split into three equal sets of twenty-four words each. We may refer to these

twenty-four-word sets using capital alphabetic characters *A, B, and C.* The three sets of twenty-four words were then interlaced according to a pre-determined offset value that changed given the current panel. The sequence of offsets for the set of panels [I, II, III, IV, V, VI] was [1, 2, 6, 8, 12, 24], respectively—or, six different factors of the number 24. Thus, panel one has an offset of one word. This means that on the first panel, word 6 of the first six-word set (word 6 from set 'a', and the first word appearing in set *A*) appears as the first word on the panel. The second word on the first panel is the first word of *B* (word 6 from subset "e"), followed by the first word of *C* (word 6 from subset i). The fourth word on panel one was then taken from the next (second) word in *A* (word 1 from subset a), and so on. For each panel, this pattern continued until all seventy-two words were used. On panel II, the offset value equals 2, so words 3 and 6 from 'a' (the first two words of *A*) are first to appear, followed by words 3 and 6 of 'e' (the first two words of *B*), and so on.

For panel VI, the offset value was 24. Since the sestina algorithm yielded the original sequence of words for each of the twelve subsets of six words ('a' through 'l') the initial passage was (re)generated; all twenty-four words of *A* appeared in order, followed by all twenty-four words of *B*, and then *C.* The text for each panel is provided below. Each word appears following the sequence depicted on the panels. Also, additional information is provided (in the parentheses appearing to the right of each word) about each word's position relative to the initial passage, whereby alphabetic characters 'a' through 'l' indicate which of the twelve six-word subsets the word is a member of and numbers 1 through 6 indicate the word's ordinal placement in the given subset (according to the initial passage):

Panel I: facticity(6a) vistas(6e) microexpressions(6i) To(1a) that(1e) gap(1i) the(5a) empty(5e) muted(5i) begin(2a) carves(2e) pixelates(2i) describe(4a) those(4e) most(4i) to(3a) out(3e) the(3i) that(6b) haunt(6f) vastness(6j) of(1b) in(1f) of(1j) norm(5b) that(5f) into(5j) a(2b) the(2f) other-platform(2j) the(4b) vistas(4f) bootstrapped(4j) syntax,(3b) mountains,(3f) faces(3j) content,(6c) subway(6g) that(6k) marks(1c) sub-city(1g) somewhere,(1k) only(5c) of(5g) but(5k) possibility(2c) bunkers(2g) each(2k) its(4c) hue-streams(4g) nowhere(4k) as(3c) when(3g) being(3k) nothingness(6d) Each(6h) converge.(6l) is(1d) cars(1h) contingent(1l) the(5d) flicker.(5h) I(5l) to(2d) slow(2h) constellation(2l) of(4d) a(4h) which(4l) speak(3d) to(3h) toward(3l)

Panel II: to(3a) facticity(6a) out(3e) vistas(6e) the(3i) microexpressions(6i) describe(4a) To(1a) those(4e) that(1e) most(4i) gap(1i) begin(2a) the(5a) carves(2e) empty(5e) pixelates(2i) muted(5i) syntax,(3b) that(6b) mountains,(3f) haunt(6f) faces(3j) vastness(6j) the(4b) of(1b) vistas(4f) in(1f) bootstrapped(4j) of(1j) a(2b) norm(5b) the(2f) that(5f) other-platform(2j) into(5j) as(3c) content,(6c) when(3g) subway(6g) being(3k) that(6k) its(4c) marks(1c) hue-streams(4g) sub-city(1g) nowhere(4k) somewhere,(1k) possibility(2c) only(5c) bunkers(2g) of(5g) each(2k) but(5k) speak(3d) nothingness(6d) to(3h) Each(6h) toward(3l) converge.(6l) of(4d) is(1d) a(4h) cars(1h) which(4l) contingent(1l) to(2d) the(5d) slow(2h) flicker.(5h) constellation(2l) I(5l)

Panel III: the(5a) to(3a) begin(2a) facticity(6a) To(1a) describe(4a) empty(5e) out(3e) carves(2e) vistas(6e) that(1e) those(4e) muted(5i) the(3i) pixelates(2i) microexpressions(6i) gap(1i) most(4i) norm(5b) syntax,(3b) a(2b) that(6b) of(1b) the(4b) that(5f) mountains,(3f) the(2f) haunt(6f) in(1f) vistas(4f) into(5j) faces(3j) other-platform(2j) vastness(6j) of(1j) bootstrapped(4j) only(5c) as(3c) possibility(2c) content,(6c) marks(1c) its(4c) of(5g) when(3g) bunkers(2g) subway(6g) sub-city(1g) hue-streams(4g) but(5k) being(3k) each(2k) that(6k) somewhere,(1k) nowhere(4k) the(5d) speak(3d) to(2d) nothingness(6d) is(1d) of(4d) flicker.(5h) to(3h) slow(2h) Each(6h) cars(1h) a(4h) I(5l) toward(3l) constellation(2l) converge.(6l) contingent(1l) which(4l)

Panel IV: describe(4a) the(5a) To(1a) to(3a) facticity(6a) begin(2a) the(4b) norm(5b) those(4e) empty(5e) that(1e) out(3e) vistas(6e) carves(2e) vistas(4f) that(5f) most(4i) muted(5i) gap(1i) the(3i) microexpressions(6i) pixelates(2i) bootstrapped(4j) into(5j) of(1b) syntax,(3b) that(6b) a(2b) its(4c) only(5c) marks(1c) as(3c) in(1f) mountains,(3f) haunt(6f) the(2f) hue-streams(4g) of(5g) sub-city(1g) when(3g) of(1j) faces(3j) vastness(6j) other-platform(2j) nowhere(4k) but(5k) somewhere,(1k) being(3k) content,(6c) possibility(2c) of(4d) the(5d) is(1d) speak(3d) nothingness(6d) to(2d) subway(6g) bunkers(2g) a(4h) flicker.(5h) cars(1h) to(3h) Each(6h) slow(2h) that(6k) each(2k) which(4l) I(5l) contingent(1l) toward(3l) converge.(6l) constellation(2l)

213

Panel V: begin(2a) describe(4a) facticity(6a) the(5a) to(3a) To(1a) a(2b) the(4b) that(6b) norm(5b) syntax,(3b) of(1b) carves(2e) those(4e) vistas(6e) empty(5e) out(3e) that(1e) the(2f) vistas(4f) haunt(6f) that(5f) mountains,(3f) in(1f) pixelates(2i) most(4i) microexpressions(6i) muted(5i) the(3i) gap(1i) other-platform(2j) bootstrapped(4j) vastness(6j) into(5j) faces(3j) of(1j) possibility(2c) its(4c) content,(6c) only(5c) as(3c) marks(1c) to(2d) of(4d) nothingness(6d) the(5d) speak(3d) is(1d) bunkers(2g) hue-streams(4g) subway(6g) of(5g) when(3g) sub-city(1g) slow(2h) a(4h) Each(6h) flicker.(5h) to(3h) cars(1h) each(2k) nowhere(4k) that(6k) but(5k) being(3k) somewhere,(1k) constellation(2l) which(4l) converge.(6l) I(5l) toward(3l) contingent(1l)

Panel VI: To(1a) begin(2a) to(3a) describe(4a) the(5a) facticity(6a) of(1b) a(2b) syntax,(3b) the(4b) norm(5b) that(6b) marks(1c) possibility(2c) as(3c) its(4c) only(5c) content,(6c) is(1d) to(2d) speak(3d) of(4d) the(5d) nothingness(6d) that(1e) carves(2e) out(3e) those(4e) empty(5e) vistas(6e) in(1f) the(2f) mountains,(3f) vistas(4f) that(5f) haunt(6f) sub-city(1g) bunkers(2g) when(3g) hue-streams(4g) of(5g) subway(6g) cars(1h) slow(2h) to(3h) a(4h) flicker.(5h) Each(6h) gap(1i) pixelates(2i) the(3i) most(4i) muted(5i) microexpressions(6i) of(1j) other-platform(2j) faces(3j) bootstrapped(4j) into(5j) vastness(6j) somewhere,(1k) each(2k) being(3k) nowhere(4k) but(5k) that(6k) contingent(1l) constellation(2l) toward(3l) which(4l) I(5l) converge.(6l)

214

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BIOGRAPHICAL SKETCH

Sean Peuquet is a composer, installation artist, and music hardware experimenter. He grew up in southeast Pennsylvania, outside of Philadelphia, and currently resides in Florida. His compositions have been played at the SEAMUS National Conference, Electronic Music Midwest Festival, New York City Electroacoustic Music Festival, International Computer Music Conference, Society of Composers, Inc. National Conference, Chosen Vale International Trumpet Seminar, the Boston CyberArts Festival, and the Dartmouth Festival of New Musics, among other spots. Before coming to the University of Florida and earning his Ph.D. in Music Composition, he graduated from the Electro-Acoustic Music program at Dartmouth College. At Dartmouth, he wrote his master's thesis on the topic of Discoverable Composition. He completed his undergraduate studies at the University of Virginia, where he majored in Music, Psychology, with a minor in Astronomy. The combination of these disciplines led him to approach experimental composition as a unifying field of study. Throughout his career, he has had the opportunity to study composition and computer music with Jon Appleton, Newton Armstrong, Matthew Burtner, Charles Dodge, Paul Koonce, Larry Polansky, Paul Richards, Marina Rosenfeld, James Paul Sain, Judith Shatin, and Ge Wang. He currently holds the position of Visiting Assistant Professor of Digital Art at Stetson University in DeLand, Florida.