Composing the Soundscape
Ecological Listening in the Music of John Luther Adams

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Submitted by
Thomas Hanslowe

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Abstract

This thesis explores the connections between John Luther Adams's music and his environmentalist politics. Drawing on recent writings in ecomusicology, as well as the work of John Cage and R. Murray Schafer, this thesis takes three of Adams's pieces as case studies, *In the White Silence* (1998), a concert piece, *The Place Where You Go to Listen* (2004-6), a sound and light installation, and *Inuksuit* (2009), an outdoor piece. These pieces provide a lens to examine how Adams connects his music to "ecological listening." I argue that Adams's music creates political meaning by suggesting listening to environmental sounds can connect us deeply with our place on earth and breaks down what he views as artificial barriers between humanity and nature. This thesis aims to deepen our understanding of both Adams's work and the political role of music in a time of environmental crisis.

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Chapter 1

Music, Time, and Ecological Listening

> *Listening attentively to the music of the natural world, we encounter a different sense of time than in most human music. The rhythms are more subtle and complex. The tempos can be extreme—very much faster and very much slower than most of our music. And ultimately the music of nature leads us away from notions of tempo and rhythm (which imply the temporal "grid" of a regular beat), to a more direct experience of the larger flow of time.*
>
> – John Luther Adams[1]

Since the late 1970s, John Luther Adams has shown a strong commitment to composing music inspired by the natural world, particularly the landscapes of his home state, Alaska. Adams does not attempt to paint musical pictures of vast, snowy landscapes, however, but rather strives to compose music that captures the human experience of the tundra. Specifically, Adams tries to represent the experience of listening deeply to unplanned environmental sounds, a practice he refers to as "ecological listening."[2] This deeper purpose underlies the diversity of his work, which includes chamber, orchestral, and electronic music. As scholars such as Sabine Feisst and Kyle Gann have observed, Adams connects his music to nature most explicitly through his many references to the Alaskan landscape. Less attention has been paid to Adams's effort to represent the experience of *listening* to Alaska. In this thesis I will argue that Adams uses a variety of strategies to imitate the

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[1] John Luther Adams, *Winter Music: Composing the North* (Middletown, Connecticut: Wesleyan University Press, 2004), 27.
[2] John Luther Adams, "Making Music in the Anthropocene," *Slate,* February 24, 2015, accessed March 7, 2015. http://www.slate.com/articles/arts/culturebox/2015/02/john_luther_adams_grammy_winner_for_become_ocean_discusses_politics_and.html.

impersonal, complex surface texture and long-term cyclical predictability of our shared soundscape. As a result, listening to a piece by Adams is in many ways much like listening musically to the uncontrolled sounds that surround us.

This thesis will explore the different ways Adams connects his music to ecological listening. In particular, I will focus on Adams's play with "musical time" in terms of how his music guides the listener's temporal experience, as well as his use of "open" timeframes that allow listeners to decide when a piece begins and ends. These musical features can only be properly understood, however, when they are put in dialogue with a broader discussion of what we mean by "nature," how music can represent nature, and what ideologies these representations might carry. By looking at Adams's work through the lens of such diverse sources as ecomusicology, the philosophies of John Cage and R. Murray Schafer, and the traditional spiritual beliefs of Native Alaskan cultures, I will argue that Adams's view of the essential unity between humanity and nature leads him to construct environmental listening as an ecological act that connects us more deeply to our place as a part of nature.

I will focus on three pieces from through Adams's career: *In the White Silence* (1998), a concert piece, *The Place Where You Go to Listen* (2004-06), a sound and light installation, and *Inuksuit* (2009), an outdoor piece. Despite their diversity, these pieces all create a temporal experience that seems to both highlight the passage of "real time" and imbue the music with a sense of the timeless and eternal. The emphasis on the passage of "real time" connects the music to the distinctly human experience of listening aesthetically to environmental sounds, while the sense of the eternal implies that these environmental sounds exist independently of

human attention and shall continue whether we chose to listen or not. Although Adams uses a sense of eternity to represent this act of listening as a spiritual experience, he connects this spirituality not to religious notions of an eternal paradise, but rather to the more scientifically and perhaps "naturally" grounded concept of geological time. These connections between Adams's music, environmental sounds, and our place within and as a part of natural forces beyond our comprehension form the core of his musical representation of the human experience of nature.

Time and Representation in Adams's Music

A number of writers have balked at the notion that Adams's music represents nature. For example, on the book jacket of *The Farthest Place: The Music of John Luther Adam* it states,

> Though he takes inspiration from the wild and open nature that surrounds him, Adams does not *represent* nature through music. He creates tonal territories that resonate *with* nature—immersive listening experiences that evoke limitless distance, suspended time, deep longing and even transcendence.[3]

Adams himself writes of his desire for *In the White Silence* "to go beyond landscape painting with tones, beyond language, metaphor and the extra-musical image."[4] In spite of this, I argue that Adams has made the connection between his music, nature, and the Alaskan landscape abundantly clear. This can be seen in particular in the

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[3] *The Farthest Place: The Music of John Luther Adams,* ed. Bernd Herzogenrath (Middletown, Connecticut: Wesleyan University Press, 2012), book jacket.
[4] John Luther Adams, *In the White Silence* (Fairbanks, Alaska: Taiga Press, 1998).

title of Adams's first collection of essays about his life and career, *Winter Music: Composing the North.*

This raises the obvious question of how Adams can be said to "compose the North" if his music is not a representation of that northernness. The answer lies in Adams's view that humanity and nature are not fundamentally separate. From this perspective, human activity makes up a part of the natural world. Therefore Adams does not view his music as an outside representation of nature, but rather as a facet of nature. Thus, as I shall discuss in the chapters that follow, Bernd Herzogenrath's comment about Adams's sound and light installation might well be applicable to all of his music:

> [*The Place*] leaves behind the idea of a music *about* nature, of music as a means of the *representation* of nature and landscape, on which Ives, for example, still relied, and creates music as a part of nature, as coextensive with the environment [emphasis in original].[5]

Although Adams's music may not represent nature per se, it does reflect a particular understanding of nature and attempts to represent a human experience within that nature. As Daniel Grimley observes,

> Above all, landscape in the Western tradition is not natural, something created by nature without human intervention, but a series of environments, characters (moods or feelings), views or perspectives that are artificially constructed and perceived.[6]

Adams does not provide us with a direct connection to the Alaskan landscape, but rather gives us a constructed and deeply subjective representation of how we can

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[5] Bernd Herzogenrath, "The Weather of Music: Sounding Nature in the Twentieth and Twenty-first Centuries," in *The Farthest Place: The Music of John Luther Adams,* ed. Bernd Herzogenrath (Boston: Northeastern University Press, 2012), 230.
[6] Daniel Grimley, *Grieg: Music, Landscape, and Norwegian Identity* (Woodbridge: The Boydell Press, 2006), 56.

experience that landscape. Representation is also a particularly apt term because Adams frequently relies on forms that can be heard as deep-seated musical metaphors for the unending forces and cycles of the natural world. In this he might be compared to Olivier Messiaen and Arvo Pärt, who also use static harmonies and cyclical layered textures to create a sense of eternity. Whereas Messiaen and Pärt wish to portray the eternity of heaven, however, Adams uses these cycles to convey the vastness of nature.

Ecomusicology provides a crucial framework for understanding Adams's work in terms of the relationship between music, culture, and ideologies of nature. Brooks Toliver's broad definition of ecocriticism as "the study of the relationship between culture and the physical environment" can be easily applied to ecomusicology as well.[7] Indeed, Toliver's own study of Ferde Grofè's *Grand Canyon Suite* demonstrates how cultural views of the natural world are not only communicated through music, but can be defined and perpetuated by the musical language itself.

Ecomusicology's focus on the expression of place in music also helps illuminate the importance of Adams's references to Alaska in his work, as well as how these references affect our understanding of the music's meaning. Holly Watkins writes,

> As ecocritics and scholars of musical exoticism are keenly aware, musical fictionalizations of place encode historically shifting attitudes

[7] Brooks Toliver, "Eco-ing in the Canyon: Ferde Grofè's *Grand Canyon Suite* and the Transformation of Wilderness," *Journal of the American Musicological Society,* vol. 57, no. 2 (Summer 2004), 327.

> about humanity, nature, and their interaction—attitudes that demand and deserve careful study."[8]

In order to understand how Adams's "musical fictionalizations" encode a specifically Alaskan sense of place, it is necessary to draw on a range of sources outside musicology or ecomusicology. As Aaron S. Allen points out, "*interdisciplinarity* has long been fundamental to musicology, and it is no different with ecomusicology."[9] The most important way Adams connects his music to Alaska is through references to Inuit and other Alaskan Native Cultures. I will draw on writings about the philosophy and traditional spiritual beliefs of Alaskan Native Cultures to examine their profound effect on Adams's music and conception of nature. Susan Kollin's cultural study of Alaska also provides a framework to argue that these important influences distinguish Adams's music from media that constructs Alaska as a picturesque "timeless wilderness" to be preserved or a "last frontier" to be exploited.

Given Adams's outspoken environmentalism and history of political activism, it may seem at first glance that his music does indeed frame Alaska as the sort of "timeless wilderness" that demands conservation efforts. Adams even campaigned for what is now known as the Artic National Wildlife Refuge to be granted federal protection.[10] The chief distinction here lies in the fact that Adams's music centers on a specifically human experience as a part of the natural world, whereas in the

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[8] Holly Watkins, "Musical Ecologies of Place and Placelessness," *Journal of the American Musicological Society,* vol. 64, no. 2 (Summer 2011), 405.
[9] Aaron S. Allen, "Prospects and Problems for Ecomusicology in Confronting a Crisis of Cultures, "*Journal of the American Musicological Society,* vol. 64, no. 2 (Summer 2011), 416.
[10] Adams, *Winter Music,* 41.

cultural constructions Kollin discusses wilderness is characterized as untouched by time or people.[11] Adams's music does not attempt to paint a picture postcard view of the empty Alaskan landscape, but rather attempts to immerse the listener in music that acts as a landscape. In the three case studies that follow I will explore how Adams achieves this through a sustained and diverse interaction with environmental sounds.

The term "environmental sounds" refers to the soundscape, or rather the uncontrolled sounds that surround us every day. As I will discuss in Chapter Four, Adams's conception and use of environmental sounds in his music owes a heavy debt to the work of John Cage. Cage's famous silent piece, *4' 33"* (1952) is most closely associated with the conception of environmental sounds as musical "silence" that could be listened to aesthetically. Cage was deeply interested in the beauty one can find in sounds which are simply allowed to "be sounds," without being forced to "speak" for a composer. As Cage describes it, "When I hear… the sound of traffic, on Sixth Avenue, for instance, I don't have the feeling that anyone is talking. Sound is acting. And I love the activity of sound."[12] Ultimately, environmental sounds serve a different purpose in the music of Adams and Cage. While Cage engaged with musical "silence" as a means of both expanding music's sonic vocabulary and engaging with Zen influenced ideas of letting go of one's ego, Adams's music reflects his view that one can understand our place within the natural world through the act of ecological listening.

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[11] Susan Kollin, *Nature's State: Imagining Alaska as the Last Frontier* (Chapel Hill and London: The University of North Carolina Press, 2001), 128-9.
[12] "John Cage about silence," uploaded 7/14/07, accessed 10/21/14, https://www.youtube.com/watch?v=pcHnL7aS64Y.

Adams shares this commitment to ecological listening with the Canadian composer R. Murray Schafer, who first pioneered the idea of soundscape studies. While both Adams and Schafer view this mode of listening as an ecological practice, their aims ultimately differ. Whereas Adams views ecological listening as a means of understanding our place within a broader world, Schafer is primarily concerned with the soundscape as an aspect of the environment in need of recognition and protection. As such, he views environmental listening as an important step toward improving what he hears as a dangerously unhealthy, or "lo-fi," modern soundscape. This can be seen when Schafer writes, "Only a total appreciation of the acoustic environment can give us the resources for improving the orchestration of the world soundscape."[13] Although Adams has at times expressed concern for the health of the soundscape, particularly the "reservoir of silence" he locates in the Arctic National Wildlife Refuge, his music is primarily concerned with encouraging a mode of listening that mirrors the practice of listening to environmental sounds.[14]

Adams's primarily tools for encouraging this mode of listening can be traced to the compositional techniques of American experimental music. While environmental sounds are incorporated outright into *Inuksuit,* Adams uses interlocking gradual processes unfolding at different tempos as the primary means of creating musical soundscapes. At its most fundamental level, Adams's musical language depends on a moment-to-moment surface complexity to ground the

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[13] R. Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World* (Rochester, Vermont: Destiny Books, 1994), 4.
[14] Adams, *Winter Music,* 9.

listener in the passage of real time, while also using predictable, long-range cycles to imbue his music with a sense of the eternal.

As a result, Adams's music often seems to imply that we are only momentarily listening in on something far longer than we could experience. This forms an important parallel with environmental sounds, which of course do continue past any boundaries set by our listening practices. This is clearest in Adams's turn toward open musical timeframes in pieces such as *The Place* and *Inuksuit*. Even in the closed temporal framework of concert pieces such as *Silence,* however, Adams's sense of musical time creates the impression of momentarily tapping into an unending stream of music.

Many studies of temporality in music have essentially used the term in reference to rhythmic construction and organization.[15] In his study of musical narrative, Byron Almén provides a more nuanced formulation when he writes that musical temporality "reflects rhythmic and metric relationships and the influence of memory and expectation."[16] Rather than focusing on "rhythmic and metric relationships," I am more concerned with how Adams's music guides a listener's subjective experience of time, as influenced by "memory and expectation." In the majority of tonal music, for example, this sense of temporal motion is created in part by our sonic memory of a piece's tonal center and the expectations that arise when

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[15] For example, John Latartara, "Cage and Time: Temporality in Early and Late Works," *College Music Symposium,* Vol. 47 (2007): 100-16.
[16] Byron Almén, *A Theory of Musical Narrative* (Indianapolis: Indiana University Press, 2008), 59.

the music moves away from this center.[17] Adams's music, on the other hand, eschews these tonal gestures and the sense of temporal motion they create, relying instead on harmonically static musical textures that avoid any sense of tension or release.

Adams's single most important tool for creating this dual sense of time may be the use of gradual musical processes. Gradual process is most widely associated with the groundbreaking minimalist composer Steve Reich, who gave the term its most famous definition in his 1968 essay "Music as Gradual Process." Gradual process in its purest form puts musical material through a simple operation that creates the piece's form and development. To give a particularly clear example, Reich's "phasing pieces" such as *Piano Phase* (1967) and *Clapping Music* (1972) begin with two performers playing a musical statement in unison. As the piece goes on, one performer moves ahead either gradually or by a sudden leap until he or she is one eighth note ahead of the other performer. This pattern is repeated until both players are once again in unison. As Reich writes, "Though I may have the pleasure of discovering musical processes and composing the musical material to run through them, once the process is set up and loaded it runs by itself."[18] While Reich thinks of gradual process as something machine-like, Adams uses process as a

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[17] Erico Artioli Firmino, José Lino Oliveira Bueno, and Emmanuel Bigand, "Travelling Through Pitch Space Speeds up Musical Time," *Music Perception: An Interdisciplinary Journal,* vol. 26, no. 3 (February 2009), 205-9. This study finds that listeners perceive time as moving faster when listening to music that modulates to distant keys rather than closely related keys.
[18] Steve Reich, "Music as a Gradual Process," in *Audio Culture: Readings in Modern Music,* ed. by Christoph Cox and Daniel Warner (New York: Continuum, 2006), 305.

means of both imitating the slow moving cycles found in the natural world and creating the sense of the eternal in his music.

Adams uses gradual process both to generate large-scale forms as Reich does, and to guide the motion of individual musical sections or voices. While Reich often made use of a single process, Adams often uses a variety of interlocking processes. In his concert music, Adams often makes use of multiple alternating textures, each of which are guided by the process involved with these multiple tempo layers. In many pieces, the form of these individual sections is defined by the gradually addition of these tempo layers followed by a similar process of subtraction, resulting in a relatively symmetrical form. When all the tempo layers of a section are present all of the pitch material of a given section often will sound simultaneously, resulting in an ever-morphing texture that is harmonically static. At a broader level, the pitch material for these sections will often systematically expand in range as the piece goes on, thus putting into play a larger-scale process as well. As I will discuss in Chapter Two, Todd Tarantino writes that these processes result in music "whose moment-to-moment sonorities are guided by number and algorithm."[19]

It is this combination of gradual process, harmonic stasis, and multiple tempo layers that gives Adams's music the timeless, static quality that many writers have commented on. For example, Herzogenrath describes Adams's music as evoking

[19] Todd Tarantino, "Wayfinding in John Luther Adams's *For Lou Harrison*," in *Perspectives of New Music* 47, no. 2 (Summer 2009), 197.

"suspended time."[20] In her discussion of *In the White Silence*, Feisst writes that listeners "should inhabit time and sound like a place devoid of beginning and end."[21] Even Adams himself has said, "I want [my music] to immerse the listener in a place of suspended time and endless space."[22] Adams's use of slowly unfolding processes as the guiding factors that define the form of his work is one of the most important factors in creating this effect. As Gann writes, "We start listening and the sonic surface is sensuous and beautiful, but the pacing is too vast to hear 'around the corner.'"[23]

It may seem odd to describe process-driven music as static. After all, process music often operates with an extremely distinct and audible logic and arrives at clearly stated goals. An argument could be made that, rather than stopping time, process driven music highlights it in the extreme. Even Reich describes listening and performing process music as "turning over an hour glass and watching the sand slowly run through the bottom," an image obviously rooted in the passage of time.[24] This cognitive dissonance arises because we can only really understand process music as stasis in comparison to the teleological music of the Common Practice Era

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[20] Bernd Herzogenrath, "Introduction," in *The Farthest Place: The Music of John Luther Adams* ed. by Bernd Herzogenrath (Boston: Northeastern University Press, 2012), 1.
[21] Sabine Feisst, "Music as Place, Place as Music: The Sonic Geography of John Luther Adams," in *The Farthest Place: The Music of John Luther Adams,* ed. by Bernd Herzogenrath (Boston: Northeastern University Press, 2012), 35.
[22] John Luther Adams, "Electronic Dialogue Seven," interview with *Sequenza 21,* 2000, accessed October 5, 2014, http://www.johnlutheradams.com/interview/sequenza21.html.
[23] Kyle Gann, "Time at the End of the World: The Orchestral Tetralogy of John Luther Adams," in *The Farthest Place: The Music of John Luther Adams,* ed. by Bernd Herzogenrath (Boston: Northeastern University Press, 2012), 48.
[24] Reich, "Music as a Gradual Process," 304.

in Western music. Whereas musical teleology creates a sense of goal-directed motion through tension that demands to be resolved, process music avoids this compositional model. The listener's awareness of the process is so clear that tension and resolution are replaced by a sense of pure, continuous sound. As the noted minimalist composer Philip Glass writes of his seminal piece *Music in Twelve Parts* (1971-4),

> When it becomes apparent that nothing 'happens' in the usual sense, but that, instead, the gradual accretion of musical material can and does serve as the basis of the listener's attention, then he can perhaps discover another mode of listening—one in which neither memory nor anticipation (the usual psychological devices of programmatic music, whether Baroque, Classical, Romantic, or Modernistic) have a place in sustaining the texture, quality, or reality of the musical experience. It is hoped that one would be able to perceive the music as… [a] pure medium 'of sound.'[25]

The notion of musical "stopped time," or as Jonathan Kramer refers to it, "vertical time," is inherently subjective.[26] There is no music I am aware of that has the capacity to literally stop time. Therefore this sense of suspended animation is not merely the product of the music, but of the music and the listener in collaboration. As Kramer points out, a piece that elicits a sense of "vertical time" time for some listeners may highlight the passage of time and bore others.[27] Listeners who do experience this sense of stopped time, however, often describe the experience as ecstatic.[28] There is an inherent duality in musical time, a fact that

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[25] Quoted in Jonathan Kramer, *The Time of Music: New Meanings, New Temporalities, New Listening Strategies* (New York: Schirmer Books, 1988), 376.
[26] Ibid., 55.
[27] Ibid., 377.
[28] For example, see Susan McClary's discussion of Laurie Anderson's "Langue d'amour" in Susan McClary, *Feminine Endings: Music, Gender, and Sexuality* (Minneapolis: University of Minnesota Press, 1991), 145.

becomes more obvious when dealing with music with little or no sense of temporal motion. While this music suggests a mode of listening where the absence of "memory and anticipation" allows a listener to experience a piece as a single, prolonged moment, the presence of clock time, of absolute time, is always lingering in the background.

Although most static music encourages us to push absolute time to the back of our consciousness so as to better experience the hypnotic effects of this "eternal present," Adams's music relies on this duality to create a musical soundscape that encourages a mode of listening normally reserved for environmental sounds. The difference in how we understand gradual process in Adams's music compared to a piece such as *Piano Phase* is subtle, but significant. Just as in Adams's music, *Piano Phase* can be heard as both emphasizing the passage of real time through its slowly, clocklike movement toward unison, while at the same time eradicating tension and release to the point where the music seems to stand still. Whereas this duality simply appears in Reich as a byproduct of the musical process, Adams uses complex surface textures to deliberately emphasize this aspect of gradual process. Even more importantly, Reich frames gradual process in *Piano Phase* as a kind of musical ritual, whereas Adams connects his musical language to the Alaskan landscape and his conception of nature.[29]

One of the principal ways Adams creates these complex textures is through the use of multiple tempo layers, which are a hallmark of his style and are found in some form in virtually all of his mature compositions. These layers create highly

[29] Reich, "Music as a Gradual Process," 306.

complex rhythmic textures with clear, independent voices. The result is a sonic landscape, a sort of musical microcosm for the broader world around us that is complex, but slow moving enough that the ear is free to wander about to different points of interest as it will.

A useful point of comparison here might be found in the allover paintings of the Abstract Expressionist painters, particularly Jackson Pollock, which have influenced many American experimental composers. In his essay "Happy New Ears," Cage writes, "Observe that the enjoyment of a modern painting carries one's attention not to a center of interest but all over the canvas and not following any particular path."[30] Adams's use of multiple tempo layers fulfills a similar function. It does not guide the listener through syntactical harmonic language or an implied hierarchy of voices, but rather allows the listener to wind their own way through dense textures. Adams even refers to one of his compositional techniques as "allover counterpoint."[31]

Adams's use of complex textures and gradual process are also connected to a particular experience of nature. It is interesting to note just what a variety of natural forces gradual process is capable of representing. While Adams often invokes a specifically Alaskan notion of landscape and physical wilderness in his pieces, his music also represents the broader, non-living forces and cycles that ultimately govern life on this planet. This is important because in spite of Adams's many references to Alaska, his music ultimately suggests that we can connect to nature by

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[30] John Cage, "Happy New Ears," in *The Book of Music and Nature,* ed. by David Rothenberg & Marta Ulvaeus (Middletown, Connecticut: Wesleyan University Press, 2001), 25.
[31] Feisst, "Music as Place," 33.

listening to whatever soundscape we find ourselves in, as shall be discussed in greater depth in in Chapter Four. Adams's stated goals for his music and his published descriptions of his experiences of the Alaskan environment support this reading. For example, take this description of Adams's experience watching points of light reflected on the snow:

> Choosing a section of the field containing no points of light, I watch until the first trace of light begins to emerge. At first I'm not sure it's really there. But over the next two or three minutes it grows to become an intense particle of illumination, burning in the snow. Another two or three minutes later, it's gone, dissolved back into the diffuse blue-gray whiteness of the field.[32]

In order to explore just how Adams represents these natural cycles in his music as well as what these representations convey about the human experience of nature and environmentalism, I will closely examine three diverse pieces from Adams's output: a piece of traditionally staged concert music, a sound and light installation, and a piece intended for outdoor performance. This will allow us to explore how these representations manifest themselves in different musical forms and time scales, as well as Adams's increasing tendency to allow the sounds of nature to speak for themselves.

In the White Silence, The Place Where You Go to Listen, **and** ***Inuksuit***

The second chapter will focus on Adams's concert music, through the lens of *In the White Silence.* In Adams's concert music, which makes up the largest part of his catalogue by far, multiple tempo layers are generally found in their most

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[32] John Luther Adams, *The Place Where You Go to Listen: In Search of an Ecology of Music* (Middletown, Connecticut: Wesleyan University Press, 2009), 41.

rhythmically strict incarnation. Many of these pieces are written in a single, unchanging time signature and feature a common pulse that unifies all the tempo layers. Most often each layer will feature identical, rhythmically bare melodic lines. Through the consistent use of tuplets, however, each layer is essentially given its own unique pulse, which plays against the other layers in a complex canon that destroys any solid sense of meter and connects the piece to the "broader flow of time."[33]

While gradual process mirrors the slow pace and predictability of natural cycles in *Silence,* Adams's sound and light installation *The Place Where You Go to Listen* harnesses these natural cycles as a means of creating musical processes. While the mechanics found in *Silence* can be applied to a great deal of music from throughout Adams's career, *The Place* holds a unique position within the composer's output and shall be discussed in depth in Chapter Three. Although Adams has written other entirely electronic pieces, such as *the place we began* (2008), and even other installation pieces, such as *Veils* and *Vespers* (2005), *The Place* is Adams's only permanent installation, and his only piece to exist wholly outside of an imposed temporal framework. Every individual listener's experience of the piece is shaped by when they decide to enter and leave the space.

The Place also appears to offer extremely different strategies for representing environment and place. Whereas the content of Adams's concert music is guided by abstract process, a complex computer program that sonifies a variety of natural phenomena in Alaska shapes *The Place*'s musical material. Thus, the position

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[33] Adams, *Winter Music,* 27.

of the sun and moon relative to the horizon, the seasons, cloud cover, the presence of the electromagnetic activity associated with the aurora borealis, and seismic activity, determine the moment-to-moment sonorities heard in *The Place.* At first glance, Adams's seeming relinquishment of formal control of the piece to natural events, the absence of tempo layers connected by a single underlying pulse, and the massive time span of *The Place* make it seem like an incredible departure, musically if not thematically, from pieces like *Silence.* Upon closer examination, however, many of these features are less radically different from Adams's concert music than they first appear. While cloud cover, as well as seismic and electromagnetic activity can vary wildly from day to day and moment-to-moment, the cycles of the season, the moon, and the sun are all relatively stable phenomena. This gives *The Place* the complex surface texture and long-range predictability found in *Silence*. Additionally, Adams carefully sonifies each data stream in accordance with his particular taste and compositional voice, and the result most definitely sounds like a John Luther Adams piece.

The Place also contains much broader gradual processes than anything found in Adams's concert music. While gradual process frequently carries implications of a broader cycle that extends beyond the beginning and end of a given piece, *The Place* makes these implications concrete. It is impossible to hear every combination of sound *The Place* could potentially produce. This installation serves not only as a musical translation of a particular Alaskan space, but also as a sonification of time in one of the broadest senses of the word. It implies a music that reaches back to the time before humanity and that will extend long after we have gone.

While *The Place* represents an intensification of the representational practices already found in pieces such as *In the White Silence*, it is in Adams's recent turn to pieces intended to be performed outdoors that meanings related to place and environment begin to shift the most dramatically. Chapter Four shall focus on Adams's first composition written specifically for outdoor performance: *Inuksuit,* scored for nine to ninety-nine percussionists*.* Whereas *Silence* and *The Place* both encourage a mode of listening connected to the soundscape, Adams's outdoor pieces directly incorporate unaltered environmental sounds into their musical language. Most importantly, by including environmental sounds as a musical layer, *Inuksuit* does not merely imply cycles of music that could potentially continue after we have stopped listening, but emphasizes the fact that we are quite literally surrounded by environmental sounds at all times. It strives to remind us that we can listen to and participate in these sounds as a way of both connecting to our particular place on the planet and understanding our position within a complex web of natural forces. By embedding human-performed music within environmental sounds, Adams illustrates most clearly his view of humanity as fundamentally a pat of the natural world.

Just as Adams's inclusion of environmental sounds links *Inuksuit* more strongly to the "eternal," the presence of a new, spatial dimension strongly highlights the music's connection to real time. While many of Adams's compositions have engaged with spatiality in interesting ways, listeners' movement through space is such a crucial part of the experience of *Inuksuit* that it might be considered an additional layer of activity; another "natural force" represented by the piece.

Although the musicians begin the piece by playing mobile instruments at a central location, they soon spread out around the performance area, which can be quite large. Listeners are also invited to walk around the space. This not only affects the perceived dynamic balance of the musicians, but also gives each listener their own distinct experience of the piece, which they are able to shape in real time.

Adams's inclusion of environmental sounds in the piece invites the sounds of human society as well as non-human "natural" sounds. Indeed, the piece has been performed in places such as Morningside Park in the heart of New York City, where the "environmental" sounds include traffic, airplanes, and other signs of bustling human activity. The word "environment" in this case does not so much conjure up a vision of pristine wilderness as it does the notion of environmental sounds as conceived by John Cage, where the emphasis is not on interpreting what these sounds might tell us about the health of the natural world but aestheticizing uncontrolled, traditionally "unmusical" sounds and accepting them as music. While it might seem counterintuitive to aestheticize the sounds of driving and other potentially destructive human activity in an ecologically centered composition, the lack of distinction made between human and non-human environmental sounds in *Inuksuit* serves to drive home Adams point that there is no genuine separation between the human and the natural world.

Adams's environmentalist message in *Inuksuit* also reaches us in a different and more explicitly political way. Unlike *The Place* or *Silence, Inuksuit* comes with an explicit warning of environmental crisis, coming in particular from the looming threat of global warming. Alexander Rehding has identified a trend in recent

ecologically centered artwork to gravitate towards visions of the nostalgic and the apocalyptic.[34] *Inuksuit* can be categorized as a part of the apocalyptic trend. It is particularly telling that the performers, which the score indicates are acting "in the capacity of the human," slowly die out at the end of the piece, leaving only the environmental sounds to continue on after human participation is silenced.

Ultimately, Adams's engagement with nature is as political as it is musical. Although experimental music is frequently thought of as an isolated and abstract practice, Adams's work reflects an ever-increasing sense of impending environmental disaster, particularly in the form of global warming and rising sea levels. By studying Adams's music, we not only gain a greater understanding of his particular mode of engaging with nature, but are also given better insight into the relationship between art and environmental crisis in the twenty-first century.

[34] Alexander Redhing, "Ecomusicology between Apocalypse and Nostalgia," *Journal of the American Musicological Society,* vol. 64, no. 2 (Summer 2011), 410.

Chapter 2

In the White Silence, **Alaska, and the Hi-Fi Soundscape**

John Luther Adams describes his 1998 concert piece for string orchestra, string quartet, celesta, harp, and vibraphones, *In the White Silence,* as "an attempt to evoke an enveloping musical presence equivalent to that of a vast tundra landscape."[35] Although *Silence* does not engage directly with natural forces or environmental sounds as *The Place* and *Inuksuit* do, it nevertheless makes use of a conventional sound palette and performance setting to create a musical soundscape. In this chapter, I argue that Adams creates this sense of music as soundscape through his use of interlocking gradual processes and multiple tempo layers. This gives *Silence* both a complex, seemingly meterless surface texture and long-range predictability that mirror important qualities of environmental sounds. In both *Silence* and the real world, close listening both heightens our awareness of the passage of "real time" and seems to tap us into the "eternal" through the suggestion of a sound world that seems as though it could (or will) continue beyond the bounds of our attention.

In order to understand how Adams's musical soundscape creates meaning, we must first understand this piece's relationship to the work of John Cage and R. Murray Schafer. Cage's understanding of "musical silence" as expressed in both his writing and music provides a framework that allows us to understand how *Silence* acts as a metaphor for real world "silence." We cannot tell what this "silence" is

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[35] Adams, *In the White Silence.*

meant to convey, however, until we examine the piece through the lens of Schafer's writings, particularly his ideal of the "hi-fi" soundscape. This allows us to both understand *Silence* as a musical representation of the Alaskan soundscape, as well as the political implications of this representation.

In the White Silence and musical process

As Feisst notes, *Silence* forms "sonic equivalents to the treeless and windswept expanses of the Arctic," and depicts a sonic environment "with an enveloping presence."[36] Given the piece's clear connection to the tundra landscape, the title *In the White Silence* evokes both the image and the sound of the vast, snow-covered Alaskan wilderness. Indeed, Adams has connected his home state and the idea of silence on a number of occasions. In his essay "Resonance of Place: Confessions of an Out-of-Town Composer," Adams writes, "Much of Alaska is still filled with silence and one of the most persuasive arguments for the preservation of the original landscape here may be its spiritual value as a great reservoir of silence."[37]

Asserting that *Silence* functions as a musical soundscape may at first seem to suggest that Adams attempts to mimic the sound world of the Alaskan tundra through instrumental effects, but this is not the case. Rather, as discussed in Chapter One, Adams attempts to mimic the sense of time created by the human experience of the Alaskan soundscape. Specifically, Adams attempts to evoke this experience of time through the use of interlocking processes to imitate the inexpressive and

[36] Feisst, "Music as Place, Place as Music," 32.
[37] Adams, *Winter Music,* 9.

broadly predictable sound world of the Alaskan tundra and multiple tempo layers to imitate the complex sonic texture of environmental sounds. This focus on the aural experience of the tundra allows Adams to place listeners within an immersive sonic landscape rather than create a musical postcard, untouched by the presence of humans, which the audience may observe from a distance.

As was discussed above, gradual process is Adams's chief means of highlighting this experience of time. However, there are many distinctions between Reich's conception of gradual process and the interlocking processes of *Silence.* In "Music as a Gradual Process," Reich writes that the process should "determine all the note-to-note (sound-to-sound) details and the over all form simultaneously."[38] This is indeed the case in pieces such as Reich's *Piano Phase,* in which all the musical material emerges out of a single gradual process. While processes determine both note-to-note details and form in *Silence,* this is the result of many different interrelated processes working at different structural levels rather than a single master process. In Reich's phase pieces, gradual process operates like an hourglass in its reliance on a single activity slowly running its course. Process in *Silence* is closer to the operation of a clock, which relies on many moving parts to keep its hands in continuous motion.

[38] Reich, "Music as a Gradual Process," 304.

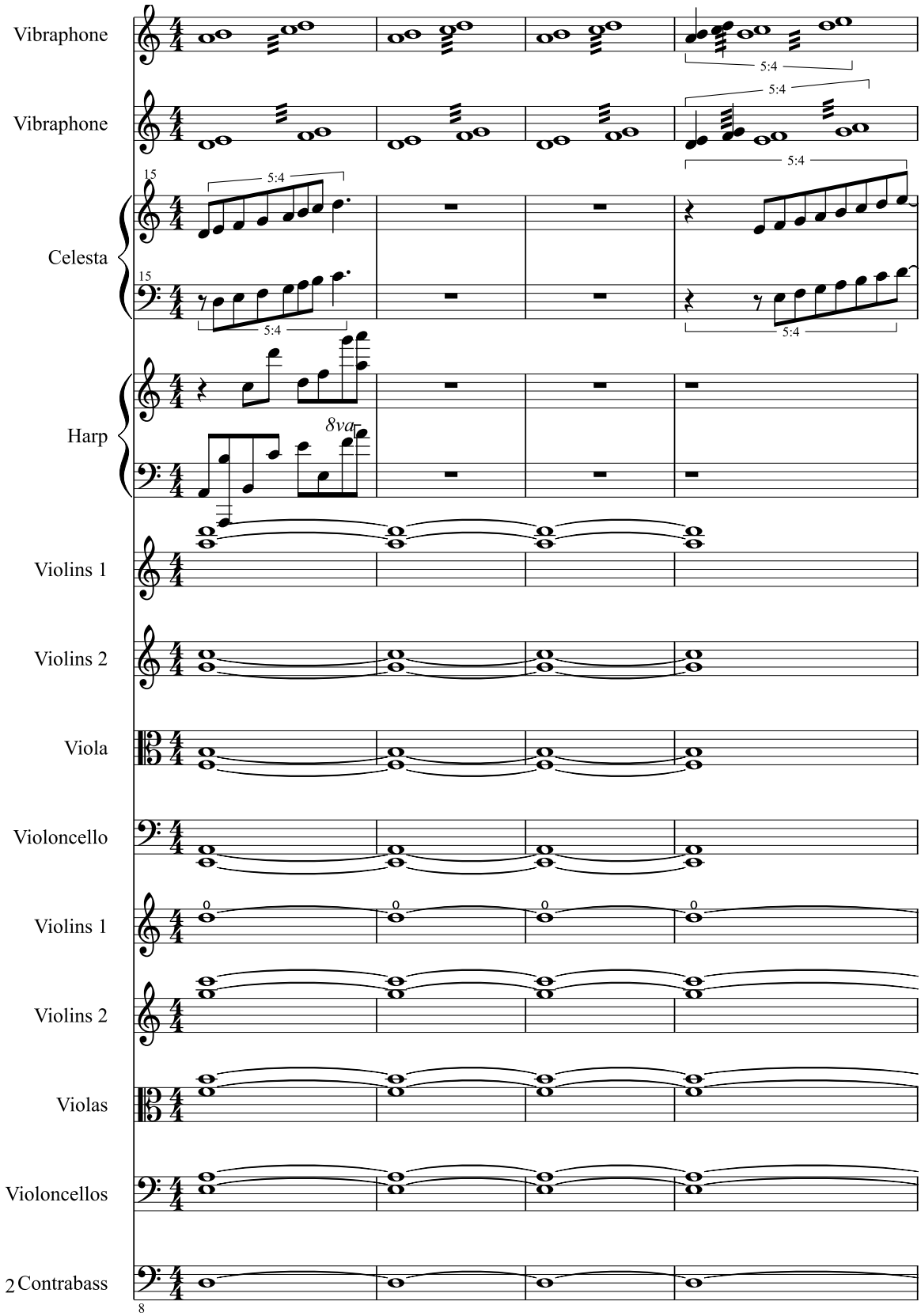

Figure 2.1 ***In the White Silence*** **A Section (mm. 39-42)**

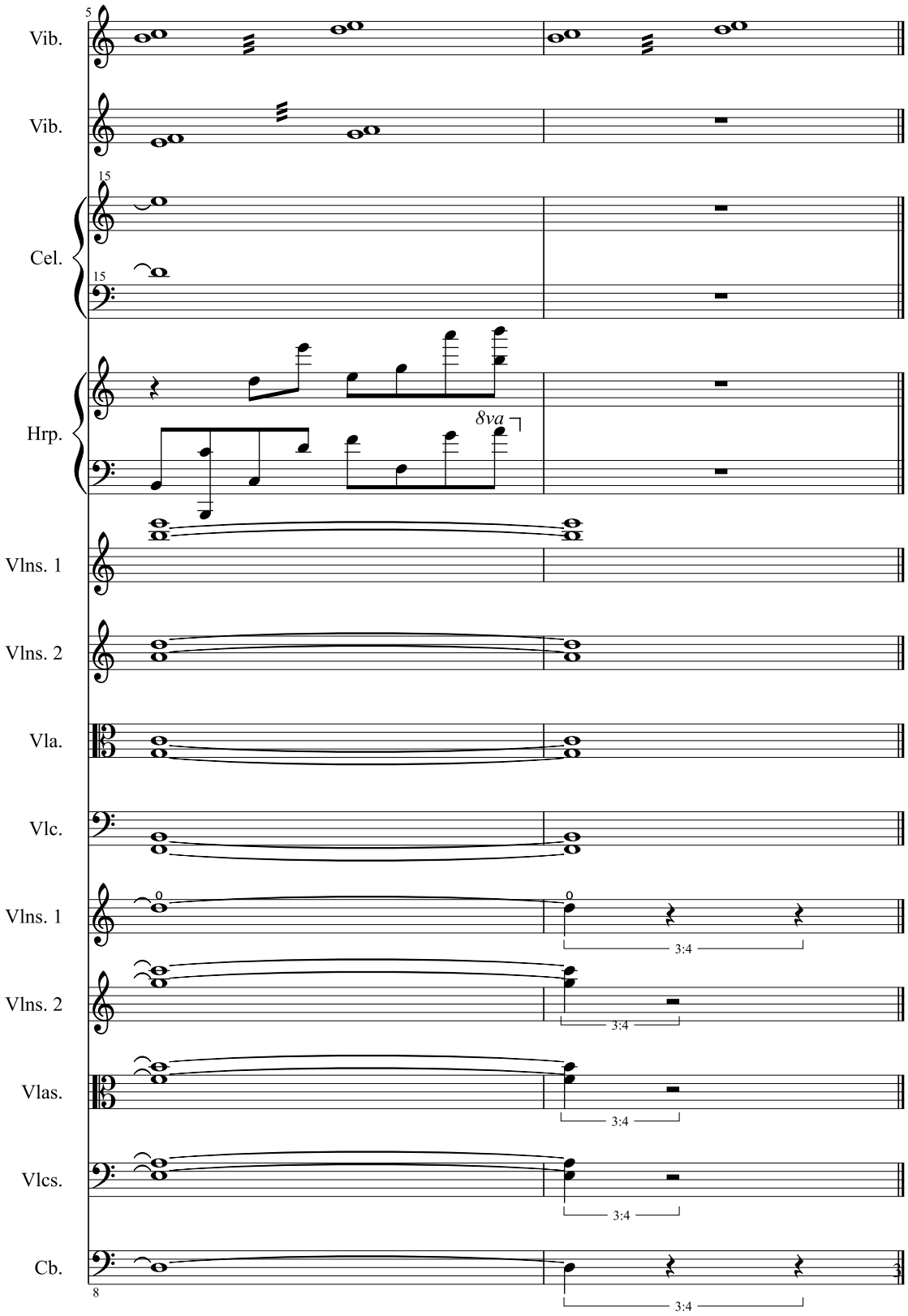

Figure 2.1: ***In the White Silence*** **A Section (cont., mm. 43-4)**

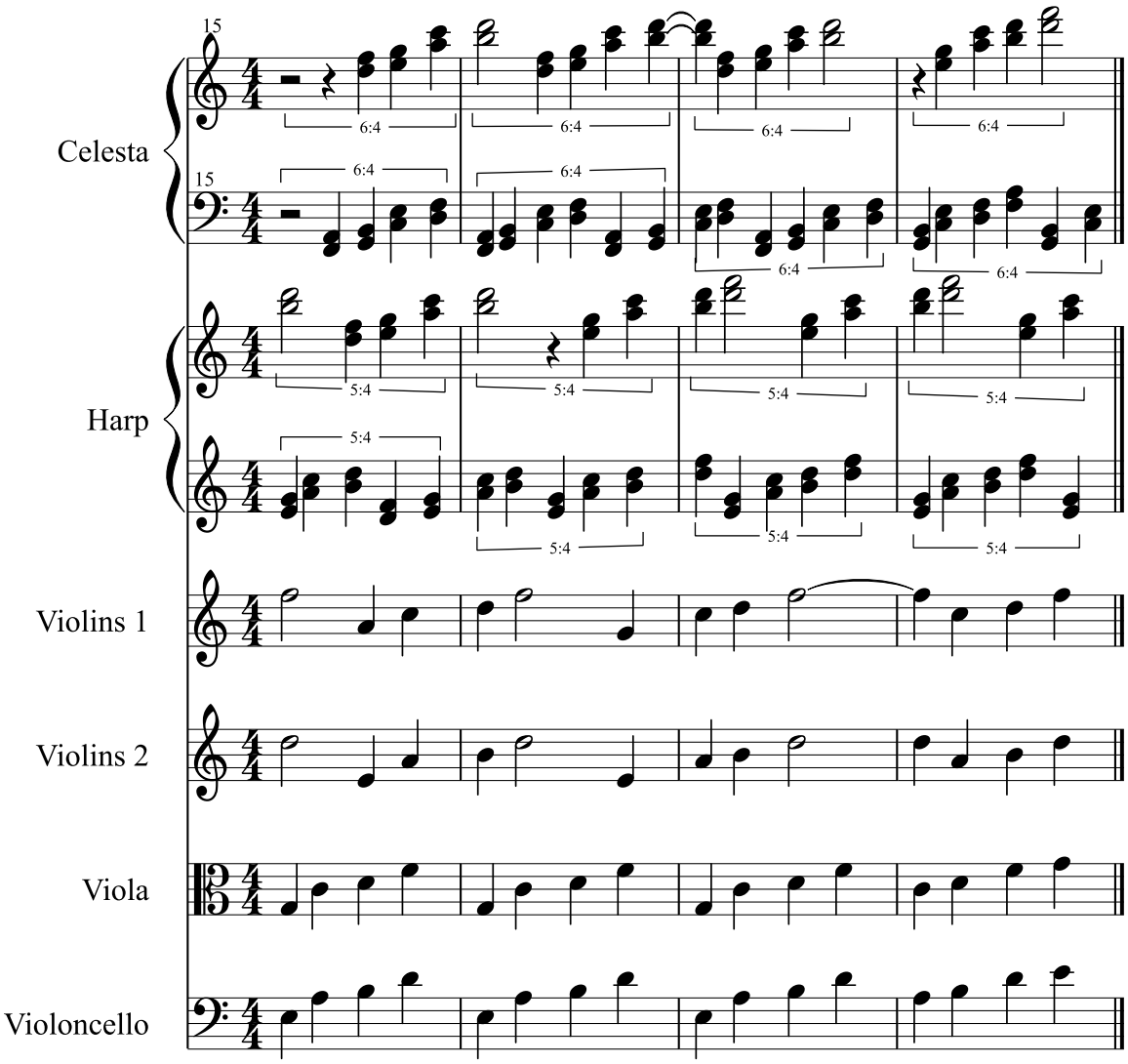

Figure 2.2: ***In the White Silence*** **B Section (mm. 68-71)**

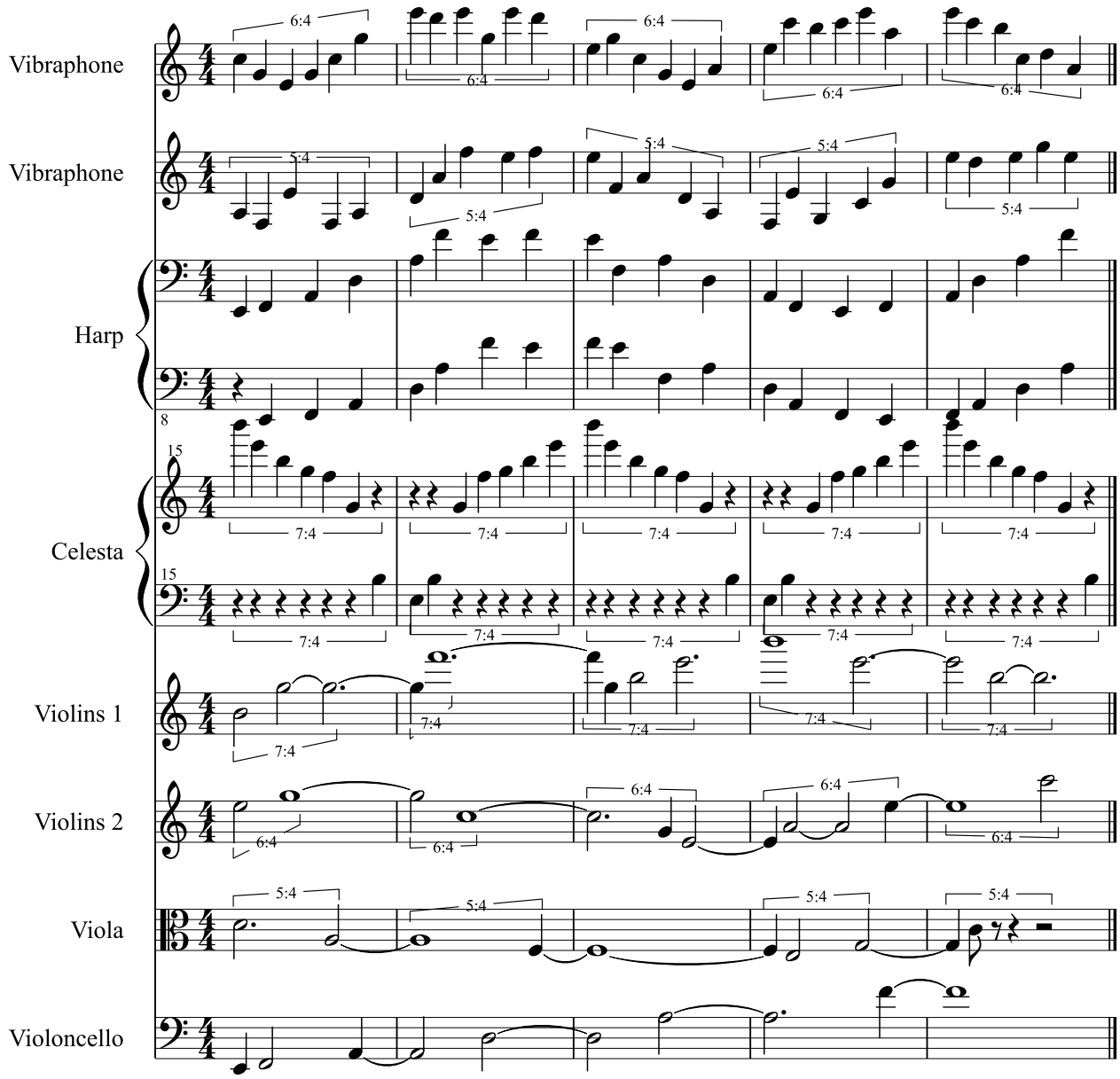

Figure 2.3: ***In the White Silence*** **C Section (mm. 208-12)**

As Kyle Gann has observed, *Silence* is made up of three sections, referred to here as A, B, and C, which are alternated in an ABAC pattern that is repeated five

times (though the final C is omitted).[39] The musical material that defines each of the piece's three sections is simple, yet characteristic and distinct. As can be seen in Example 2.1, the A sections feature sustained chords in the string orchestra, string quartet, and vibraphones, and rising figures in the harp and celesta. The B sections, seen in Example 2.2, are comprised of similar five-beat rising figures heard at different tempo layers between the string quartet, harp, and celesta. The C sections feature a melodic figure generated by steadily expanding and contracting interval and durations paired with an arpeggiated quarter-note figure governed by a similar rule of interval expansion, as seen in Example 2.3. These pairings are heard against each other moving in four different tempo layers.

Adams relies on the flexible use of processes to develop the piece at as whole. This includes both the repetition of the ABAC pattern to create form at the broadest level and the developments that occurs within each repetition of A, B, and C. As Gann describes, the A and B sections are both loosely developed through intervallic expansion with each reiteration. The rising line in the harp and celesta in the A section first relies on rising seconds, and then seconds and thirds alternating, etc. The B sections first emphasize seconds, then thirds, onward through sevenths. C sections are a bit more complicated. Each C section is built around a melody developed through gradually expanding intervals, as can be seen in Figure 2.1. Each reiteration of C begins this melody on a different interval, though the pitch level associated with each interval is retained throughout (i.e. seconds always sound E-

[39] Gann, "Time at the End of the World," 58.

F).[40] As shall be explored in greater detail below, Adams uses a number of related processes both to create these musical layers and to arrange the way they sound against one another.

One of the reasons Reich valued gradual process was because it made musical development clear and obvious. As Reich writes,

> I don't know any secrets of structure that you can't hear. We all listen to the process together since it's quite audible, and one of the reasons it's quite audible is, because it's happening extremely gradually.[41]

It seems a dubious proposition to claim that Adams's complex web of processes can be considered audible in the same way that the process of *Piano Phase* is audible. Rather, Adams is concerned with process as a means of developing musical material impersonally rather than expressively. As Reich writes, process music provides "direct contact with the impersonal."[42] Adams does not use process so his listeners will understand the precise workings of every tempo layer in *Silence,* but rather as a means of making the juxtaposition of these tempo layers seem unintentional, just as the simultaneities of the soundscape are unintentional. After all, if a bird begins to sing just as the wind rustles the leaves of a tree, we do not assume that was because they planned it that way.

If the processes that organize *Silence* reflect the impersonal quality of nature, the musical material Adams runs through these processes is often strikingly and expressively human. This is yet another way in which Adams places the human within the landscape and strives to create "music that is both rigorous in thought

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[40] Ibid., 58-63.
[41] Reich, "Gradual Process," 2.
[42] Ibid., 1.

and sensuous in sound."[43] This combination of the impersonal and the human can be seen particularly clearly in the inner workings of the first A section of *Silence.* The A section divides the ensemble into three different tempo layers that move at a ratio of 3:4:5. The string orchestra counts three beats per measure through quarter-note-triplet markings, the string quartet and harp move in the common time meter the piece is composed in, and the vibraphones and celesta subdivide every measure into five beats. Each of these layers plays eight sixteen-beat statements at their respective tempos. Although each of these tempo layers is written in common time, they destroy any sense of meter in the piece and mirror the complex, meterless rhythms of the soundscape.

As can be seen in Figure 2.1, the string orchestra's sixteen beat cycle takes the longest to unfold, while the vibraphones and celesta move the quickest. With some exceptions in the inner voices of the string orchestra and quartet, all musical material moves up a step in the diatonic C major scale with each restatement, as exemplified by the celesta statements seen in Figure 2.4. Adams staggers the entrances and exits of these layers in order to form the shape of the section, as can be seen in Figure 2.5.

[43] Gann, "Time at the End of the World," 48.

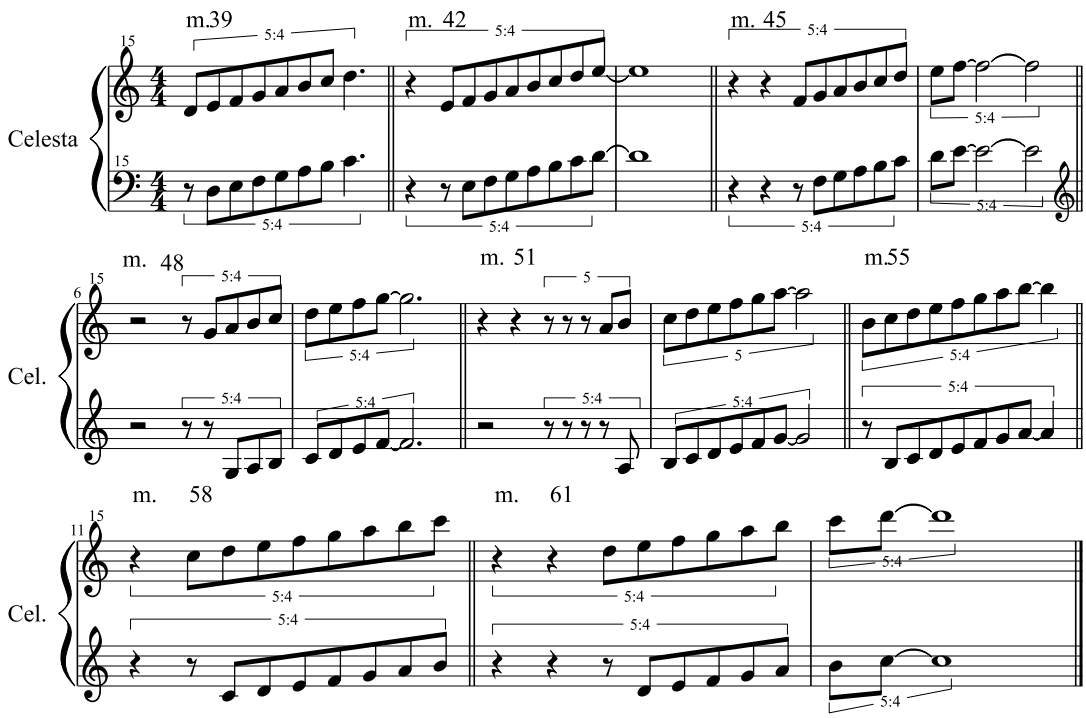

Figure 2.4: Celesta statement in the first A section

Adams's use of rising gestures as well as solo harp and celesta gives these rigorous processes a sensual, human expressivity contained within the inexpressive, impersonal language of gradual process. This is also heard in Adams's frequent use of solo instruments juxtaposed against dense musical textures. Adams even marks the first entrance of the string quartet in the B section "Singing." Furthermore, Adams specifies that although the string orchestra should play without vibrato, the string quartet should play with normal vibrato throughout.

Mitchell Morris's important early essay on Adams's music and environmental politics, "Ectopian Sounds," argues that this combination of the expressive and inexpressive is one of the composer's chief means of "folding the human back into

the natural world so that there is no essential difference between them."[44] While Morris's essay was written before *Silence,* he nevertheless discusses the piece *Silence* grew out of, *Dream in White on White* (1992), which features very close equivalents to *Silence*'s A and B sections. According to Morris, *Dream* oscillates between the "'objective' evocations of the cold, sublime landscape" in the form of the string orchestra's opening sustained chords, and "'subjective' moments in which emotional reactions take the foreground of music."[45]

One place in which Morris locates this subjectivity is the entrance of the solo harp against the string orchestra, which very closely anticipates the A sections of *Silence* (though *Dream* does not feature vibraphones or celesta). As Morris writes, the harp is "one of the most poetically individualized of Western orchestral instruments," and its use "summons up the faint multitude of past responses, a reservoir of fluid expressiveness."[46] When the expressivity of this gesture is heard against what Morris reads as the transpersonal quality of the string orchestra's slowly moving sustained chords, it is

> as if a viewer were looking across a snowy expanse and then began to notice individual snowflakes drifting down in the near distance. In moving closer to a potential subject, Adams's music begins to approach a human scale of perspective.[47]

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[44] Mitchell Morris, "Ectopian Sounds; or, The Music of John Luther Adams and Strong Environmentalism," in *Croscurrents and Counterpoints: Offerings in Honor of Bengt Hambræus at 70,* ed. Per F. Broman, Nora A Engebretsen, and Bo Alphonce (Göteborg, Sweden: Publications form the University of Gothenburg Department of Musicology no. 51, 1998), 137.
[45] Ibid., 134.
[46] Ibid.,135.
[47] Ibid., 135-6.

Morris argues that this subjectivity is intensified in the piece's next section, a close equivalent to the B sections of *Silence,* which he says "swerves away from the transpersonal quality of the opening."[48] As Morris writes, "In their faster rate of change, their register, their ability to be played in a more lyrical manner, and their interrelationships, these fragments seem immediately more dialogic, more 'expressive.'"[49]

The focus on the human perception of landscape Morris locates in *Dream in White on White* is one of the most crucial aspects of Adams's musical language. Although Morris locates the landscape in his almost pictorial interpretation of the "transpersonal quality" of the string orchestra's slowly moving chords, I argue that it is Adams's reliance on process that creates this impersonal effect. This not only provides room for Adams's claim that *Silence* strives to "go beyond landscape painting with tones," but also gives us a means of understanding how the human and the impersonal are intertwined in Adams's musical language beyond the bounds of a particular piece. In both *Silence* and *Dream,* there is not certain musical material that represents the human that is contrasted with other material that represent landscape. Rather, Adams's use of impersonal process to develop and organize expressive, human musical material blurs the line between these categories, making it impossible to define exactly where the human begins and landscape ends. Indeed, Adams even uses process as a means of emphasizing this expressivity. As can be seen in Figure 2.2, the process Adams uses to stagger the entrances and exits leaves the solo celesta and vibraphones alone at the end of the section, sounding

[48] Ibid., 136.
[49] Ibid.

particularly delicate and expressive compared to the dense, polymetric texture heard when all three tempo layers are active (as can be seen in Figure 2.1).

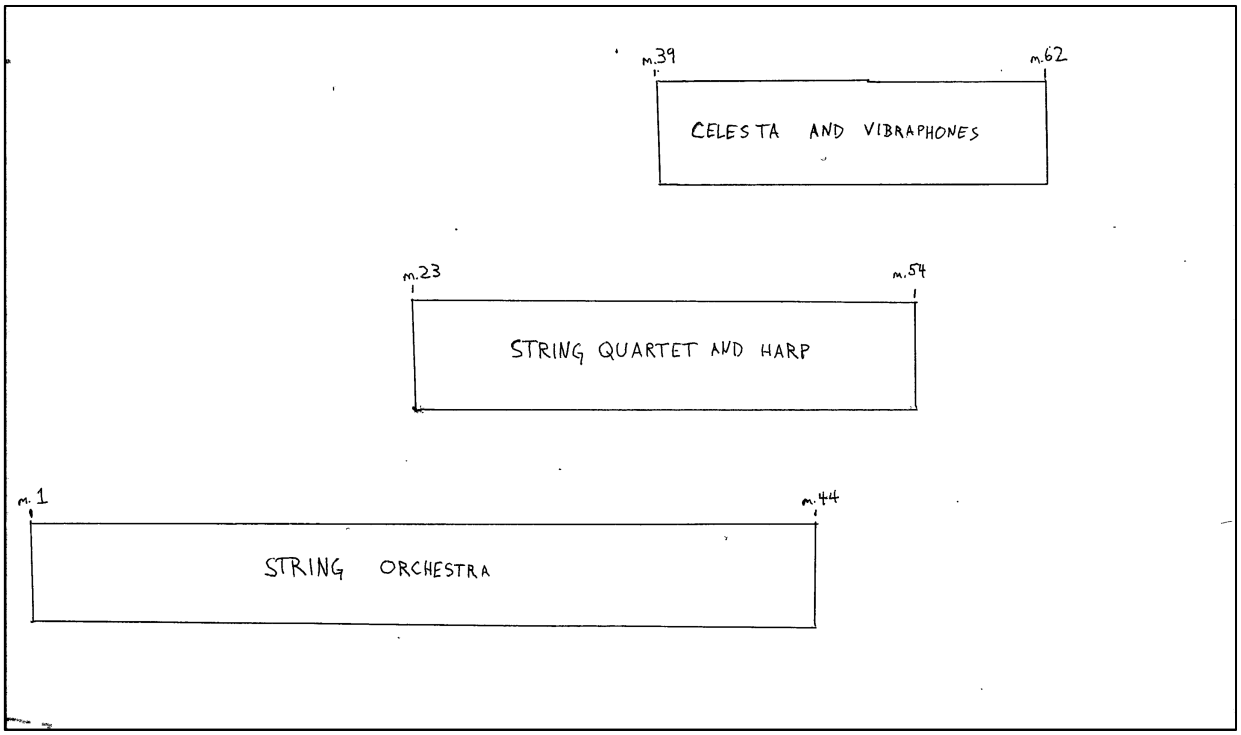

Figure 2.5 Scale Graph of Entrances and Exits of Tempo Layers in the first A Section

As was discussed in Chapter One, process also imbues Adams's music with a static quality that Kramer refers to as "vertical time." As Feisst writes,

> …the listeners should not perceive the piece as a sound object apart or a musical narrative proceeding from A to B. Rather, they should inhabit time and sound like a place devoid of beginning and end (as emphasized by the title *In the White Silence* rather than 'The White Silence').[50]

It is this sense of stopped time that musically invests the experience of the Alaskan tundra landscape *Silence* attempts to represent with a sense of spirituality and

[50] Feisst, "Music as Place, Place as Music," 35.

transcendence. This sense of the suspended moment can give listeners a feeling of what Kramer describes as "unity with his or her surroundings; a mystical oneness with the universe."[51] This association of timelessness with the view from paradise has deep roots in Western thought, stretching back at least as far as Thomas Aquinas who wrote that "God sees all things in His eternity, which, being simple, is present to all time, and embraces all time."[52] As Feisst observes, Adams even includes "Timeless…" as *Silence*'s opening indication.[53] Adams does not connect this sense of timelessness with a theological concept of paradise, however, but rather with the landscapes of the north. As Gann writes, "Adams sanctifies Alaska in his music."[54]

Indeed, Adams's use of non-functional, largely static harmonic language both enhances this timeless quality and connects *Silence* to musical signifiers of nature in the Western classical tradition. Throughout the entire piece, Adams relies exclusively on the seven natural tones found in the diatonic C major scale. The exclusive use of the "white keys" serves as a metaphor (and a pun) for the tundra. Adams avoids a sense of harmonic motion, as well as questions of tonality or atonality, by constructing textures in which all seven notes sound together for nearly the entire piece. This harmonic saturation is so dominant that moments in which not all seven notes sound are heard as a manipulation of texture rather than harmonic change. Adams does include some gestures, however, that seem to point

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[51] Kramer, *The Time of Music,* 382.
[52] Quoted in Andrew Brenner, "Aquinas on Eternity, Tense, and Temporal Becoming," *Florida Philosophical Review,* vol. x, issue 1 (Summer 2010), 17.
[53] Feisst, "Music as Place, Place as Music," 35.
[54] Gann, Foreword to *Winter Music,* xii.

toward harmonic motion. In the A section of *Silence* in particular, Adams frequently revoices the sustained chord in the string orchestra in a way that creates powerful bass motion. While this adds to the surface complexity of *Silence,* Adams's reliance on diatonically saturated harmony ultimately denies this bass motion any real function. These changes are just another aspect of *Silence*'s complex surface texture rather than a driving, directional force for the piece.

The piece's lack of harmonic motion is particularly significant because, as Toliver has observed, harmonic stasis has long been associated with the representation of wilderness in Western art music. As Toliver writes, "the use of 'static activity' to depict landscape extends at least as far back as the madrigals and Parisian chansons of the sixteenth century."[55] Examples of this abound, from the imitation of birdcalls in the "Spring" movement in Antonio Vivladi's *Le Quattro stagioni* (1720) to the prelude to Richard Wagner's *Das Rheingold* (1854). Adams's music takes this method of musical signification to a new extreme by composing music that does not feature merely a passing section of harmonically static "nature music" but rather features harmonic stasis and the representation of nature as the fundamental elements of its musical language.

This lack of harmonic motion is one of the principal reasons this music does not develop in any conventional sense or create the same expectations generally found in Western classical music. Tarantino's description of Adams's *for Lou Harrison* (2003) can just as easily be applied to *Silence*:

> Throughout the composition, time passes and sounds happen; one section moves to another. Because the piece does not contain the

[55] Toliver, "Eco-ing in the Canyon," 354.

> conditions necessary for creating expectations, the listener cannot interact with the work by guessing what will come next. Rather the work is a vast environment within which the listener is placed.[56]

In this "vast environment," musical interest is found in the seemingly disconnected juxtaposition of musical material that moves at different tempos and follows processes with varying degrees of strictness. It is this sense of disconnectedness, the impersonal way that process makes the different tempo layers overlap, which makes the piece worthwhile to consider in the context of Cage's concept of silence.

The Alaskan tundra as a hi-fi soundscape

The concept of silence is central to the piece, as is implied by the title *In the White Silence.* Indeed, the entire piece can be read as a musical metaphor for a certain conception of "silence." As Adams writes, "Silence is not the absence of sound. It is the presence of stillness."[57] This distinction is also evident in Adams's observation that, "As John Cage reminded us, silence does not literally exist."[58] Adams's understanding of silence as it relates to the soundscape shows the strong imprint of Cage's music and thought.

Cage's most famous use of silence is *4'33"* (1952), which in its final published version has any number of performers on any instruments remain tacet for three movements of any length. The silence of the performers creates a framework that heightens our awareness of the accidental environmental sounds of the performance space, and encourages us to listen musically to these sounds. It is

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[56] Tarantino, "Wayfinding in John Luther Adams's *For Lou Harrison*," 218.
[57] Adams, *In the White Silence.*
[58] Ibid.

telling that Cage chose to premier the piece at the Maverick Concert Hall, which Gann describes as "a lovely open-air theater just south of Woodstock, New York, rustically fashioned to blend with its natural environment."[59] In spite of the inherent theatricality of *4'33",* Cage ultimately came to think of the piece as primarily defined by the act of listening rather than performance. In a 1982 conversation with William Duckworth, Cage remarked that listening to his silent piece was an important part of his daily life.[60] The performance is thus not in the framework set up by a non-playing musician, but in the act of a listener turning his or her attention to the constant stream of unplanned sounds that Cage referred to as silence.

This definition of silence is also strongly connected to the idea of nature. As Gann writes,

> Still, in midcareer it would be Cage who made the most radical turn toward nature of any composer: nature as associated with chance and environmental sounds…In *4'33"*—at least in terms of its outdoor premiere—he took the controversial step of simply listening to what the American environment sounded like.[61]

Adams's references to Cage's concept of silence not only grounds *In the White Silence* more deeply in the soundscape of the Alaskan tundra, but also reinforces the way in which process music heightens our awareness of "real time." After all, it is very telling that the piece most associated with this mode of listening is named after the exact length of its first performance in minutes and seconds.

In spite of all this, *In the White Silence* sounds nothing like Cage's music, particularly the aleatoric music he composed in the wake of *Music of Changes* (1951)

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[59] Kyle Gann, *No Such Thing As Silence: John Cage's* 4'33" (New Haven: Yale University Press, 2012), 1.
[60] Ibid., 186.
[61] Ibid., 27.

and *4'33".* Cage sought to remove his ego from the compositional process by using chance operations to determine every facet of his music. Although there is a certain resonance between Cage's attempt at musical ego-death and the impersonal quality of process music, Adams cannot be said to relinquish his compositional control in *Silence.* As Reich writes,

> Musical process can give one a direct contact with the impersonal and also a kind of complete control, and one doesn't always think of the impersonal and complete control as going together. By 'a kind' of complete control I mean that by running this material through the process I completely control all that results, but also that I accept all that results without change.[62]

Cage engaged with both environmental sounds and aleatoric process principally to avoid the very expressiveness that we have already identified as crucial to Adams's musical language. For Cage, environmental sound was a means of eliminating his ego from his music. Adams, on the other hand, carefully controls his musical material in order to imbue *Silence* with a sense that there is no real distinction between humanity and the "natural world" of the soundscape. Furthermore, this control allows Adams to musically represent what Schafer refers to as a hi-fi, idealized soundscape.

Schafer's notions of what constitutes a "good" hi-fi soundscape and a "bad" lo-fi soundscape seem to have an important influence on *Silence.* In his preface to the score, Adams writes, "in a world going deaf with human noise, silence endures as a deep and resonant metaphor," a sentiment with obvious roots in Schafer's thought.[63] Schafer writes,

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[62] Reich, "Music as a Gradual Process," 305.
[63] Adams, *In the White Silence.*

> The hi-fi soundscape is one in which discrete sounds can be heard clearly because of the low ambient noise level. The country is generally more hi-fi than the city; night more than day; ancient times more than modern. In the hi-fi soundscape, sounds overlap less frequently; there is perspective—foreground and background: '… the sound of a pail on the lip of a well, and the crack of a whip in the distance'—the image is Alain-Fournier's to describe the economic acoustics of the French countryside.
>
> The quiet ambiance of the hi-fi soundscape allows the listener to hear farther into the distance just as the countryside exercises long-range viewing.[64]

At first glance, the complexity of *Silence*'s musical surface, in which sounds overlap with a great deal of frequency, seems to forego an interpretation of the piece as a musical representation of a hi-fi soundscape. A closer look at Adams's orchestral and rhythmic techniques, however, reveals a strong concern for the sort of balance and audibility Schafer advocates for, particularly when we compare his use of multiple tempo layers to one of Adams's most important influences, Conlon Nancarrow. As Adams writes,

> Nancarrow rigorously and thrillingly expanded the possibilities of musical time. As he sustained multiple tempo layers throughout entire compositions, a rich new temporal depth opened up for Western music.[65]

Compared to Adams, however, Nancarrow's use of multiple tempo layers is considerably denser and more complex. Gann claims that Nancarrow's music explores "more aspects of rhythmic superimposition and tempo clash than any other composer."[66] This is perhaps most obvious in Nancarrow's tempo canons, in

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[64] Schafer, *The Soundscape,* 43.
[65] Adams, *Winter Music,* 91.
[66] Kyle Gann, *The Music of Conlon Nancarrow* (Cambridge: Cambridge University Press, 1995), 2.

which "a melody (or, later, textural block) is superimposed upon itself at different levels of transposition and at varying tempo ratios, for example 4:5, 12:15:20, and so on."[67] Nancarrow also composed music in which different tempo layers would accelerate at different rates. For example, Gann describes Study for Player Piano no. 27 as "a canon in which the voices accelerate (and decelerate) at rates of 5%, 6%, 8%, and 11%. (In a 5% acceleration, each note is 5% shorter in duration than its predecessor.)"[68] Indeed, Nancarrow composed the bulk of his output for player piano precisely because it was capable of playing rhythmic figures generally considered impossible for human performers.[69]

In the White Silence combines Nancarrow's penchant for superimposing proportionally related tempo layers atop one another with a musical interpretation of Schafer's call for a "favorable signal-to-noise ratio" in which sounds are clear and distinguishable. This is most obvious in the A sections of *Silence*. As this chapter has already discussed, the A sections divide the ensemble into three proportionally related tempo layers. If we refer all the way back to Figure 2.1, however, we observe that this section only employs two, quite simple rhythmic profiles that cut across these tempo layers. Although the string orchestra, string quartet, and vibraphones essentially operate at different tempos, they each reiterate sixteen-beat, diatonically saturated block chords throughout the section. Similarly, the harp and celesta both

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[67] *Grove Music Online,* s.v. "Nancarrow, (Samuel) Conlon," by Kyle Gann, accessed March 2, 2015, http://www.oxfordmusiconline.com.ezproxy.library.tufts.edu/.
[68] Ibid.
[69] Gann, *The Music of Conlon Nancarrow,* 1-2.

sound rising eighth-note rising figures separated by several measures of rests.[70] Even when every tempo layer is in motion, the texture is perceived as two solo instruments sounding brief, repetitive gestures over slowly shifting sustained chords.

This allows Adams to musically create a sense of perspective, in which the sustained chords function as the background and the faster moving rising gestures function as the foreground. Schafer claims that an audible foreground and background is one of the defining elements of a hi-fi soundscape, as is the ability to hear for great distances. Adams employs a number of spatial effects in *Silence* that strongly contribute to its representation of a hi-fi soundscape. This manifests itself most clearly in Adams's unusually detailed seating specifications in the piece's score:

> The Orchestra should be seated in a wide arc, upstage.
> The Quartet should be seated downstage, in a smaller arc.
> The Celesta should be seated behind and between the Quartet Violins.
> The Harp should be seated behind and between the Quartet Viola and 'Cello.
> The Vibraphones should be situated midstage, between the Quartet and Orchestra.[71]

This demonstrates a concern with organizing sounds not only in terms of which instruments are playing what, but also in regard to where these sounds emanate from onstage. If the string orchestra made use of a more conventional seating pattern with the first chair from each section designated as the string quartet, these groups and their material would not achieve the same degree of

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[70] To be more precise, the harp (which moves in four) repeats a cycle in which it sounds four-beat statements separated by twelve beats of rest, while the celesta (which moves in five) sounds five-beat statements separated by eleven beats of rest.
[71] Adams, *In the White Silence.*

separation as when they are physically spread out, particularly in the moments when each of these groups is assigned a separate tempo layer. As Feisst writes, "Adams evokes the idea of music as place through spatially deployed sound to enhance the perception of background and foreground strata."[72]

Adams enhances this sense of separation and exemplifies another aspect of the hi-fi soundscape in his persistent use of isolated tempo layers and instrumental groups throughout the piece. As can be seen in Figure 2.5, the structure Adams employs for the first statement of the A section provides the listener with opportunities to hear the string orchestra at the beginning of this section and the vibraphone and celesta at the end by themselves. This provides precisely the clarity Schafer called for in the soundscape and allows the listener a familiarity with the tempo layers that makes it easier to aurally identify them when they are heard simultaneously.

Adams further enhances this audibility through his reliance on relatively simple musical content within each tempo layer. Whereas Nancarrow's musical material featured distinctive and (relative to Adams) complex melodic and rhythmic material juxtaposed against itself at different tempos, Adams's musical material is markedly restrained. As can be seen in Figure 2.1, the harp and celesta both rely on steady eighth notes and consistent intervallic patterns. This along with the unique timbres and different tempo layers of the solo harp and celesta make it easier to hear the distinction between these lines when they sound together. While this is particularly clear in Adams's reliance on sustained chords and brief rising gestures

[72] Feisst, "Music as Place, Place as Music," 33.

in the A sections of *Silence,* it can be heard even in the piece's most complex musical material, such as the melody that the piece's C sections is built around.

This melody, built out of the steady expansion of both melodic and rhythmic content, is by far the most elaborate of *Silence*'s musical building blocks. Nevertheless, its constant rhythmic expansion makes the beginning of the statement much faster than the end, as can be seen in Figure 2.3. Adams's use of sustained tones makes it easier to hear the melody's faster-moving entrances. This makes it much easier to aurally separate the tempo layers and exemplifies the clarity Schafer calls for in the soundscape.

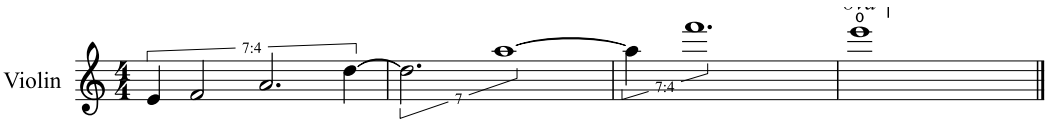

Figure 2.6: Rhythmically expanding melody in the first C section.

At first, Adams's musical portrayal of the Alaskan landscape as a hi-fi soundscape seems to indicate a total sympathy with Schafer's ideals, and indeed, Schafer's notion of acoustic ecology seems to have left a strong impression on Adams's musical and environmental thought. However, it is worth considering how this portrayal fits within Adams's stated political views. Adams clearly values the Alaskan wilderness beyond its "great reservoirs of silence," as demonstrated by his reference to the Arctic National Wildlife Refuge as "among the most sacred of places."[73] Adams does not value this place solely for the listening opportunity it affords him, but rather values ecological listening as a means of connecting deeply with a place he considers inherently precious. While Adams expresses this purely

[73] Adams, *Winter Music,* 25.

through musical representation in *Silence,* his sound-light-installation *The Place Where You Go to Listen* connects Adams's musical language directly to the natural forces that help to shape and define his Alaskan home.

Chapter 3

Natural Cycles as Gradual Process in *The Place Where You Go to Listen*

Although the majority of John Luther Adams's music is concerned with the representation of nature in some way, only his 2004 sound and light environment *The Place Where You Go to Listen* harnesses actual, spontaneous forces of nature to shape its musical language. On the surface *The Place* seems to be a radical outlier in Adams's output. The installation features no traditional instruments, but rather relies on the real-time sonic translations of environmental data into electronic music. Adams's use of environmental data as a guiding musical principal has important implications for our understanding of how both the concept of soundscapes and Alaska are represented in Adams's work as a whole. Adams connects *The Place* to Alaska in part through the title, which references an Iñupiaq legend. This also provides an excellent opportunity to examine the important influence Native Alaskan cultures have had on Adams's music and philosophy.

As I will discuss, ultimately what sets *The Place* apart and affects its representation of the Alaskan soundscape the most is its drastically expanded timescale. *The Place* mirrors natural cycles of day and night, the phases of the moon, and the changing of the seasons. These cycles move so much slower than even the longest pieces of Western art music that the musical motion of the installation frequently seems to have halted entirely. The result is an intensification of the simultaneous sense of real time and suspended time already identified in *Silence. The Place* also has no defined beginning or end, which forces the listener to

construct his or her own time frame for the piece. Whereas *Silence* seems to imply music that extends beyond the beginning and end of a particular performance, *The Place* quite literally extends beyond the bounds of any particular listening section and seems to suggest that the piece could continue eternally. This sense of eternity is further highlighted by *The Place*'s implication of music that continues past the installation's hours of operation which listeners do not have access to. Just as in *Silence*, *The Place* represents listening deeply to the world around us as a spiritual experience. Indeed, our understanding of this spirituality is clarified by the way *The Place* uses the forces and cycles that shape Alaska to emphasize humanity's incapacity to truly understand its position within a natural world both beautiful and vast beyond our powers of comprehension.

The Place Where You Go to Listen **and Native Alaskan cultures**

A complex computer program created by Adams and Jim Altieri processes information from meteorological, seismological, and geomagnetic stations in Alaska and translates this data into electronic sound in real time. The "hum" that is the dominant sonic feature of *The Place* is either the Day Choir or the Night Choir, depending on when one is listening. The Day Choir is bright and major sounding, extending up to four octaves when the sun is high in the sky and narrowing in range when the sun is low or overcast. The Night Choir is darker in tone, sinking in range as the night grows deeper. The glassy tones are the Aurora Bells, tuned in just intonation (in which the intervals are based on whole-number ratios) and triggered by the same electromagnetic activity that causes the Northern Lights. Adams's use of

just intonation, which he describes as the "natural intervals of the harmonic series," further connects the installation to the idea of nature.[74] The rumbling sounds are the Earth Drums, triggered by seismic activity in Alaska. An astute listener will also notice a thin band of pink noise (white noise in which the higher registers have been filtered out) that moves around the room as the Moon moves around the Earth.[75]

In order to understand the significance of Adams's assignment of particular sounds to particular natural phenomena, we first must take a closer look at the work's connections to Native Alaskan cultures. The title of *The Place Where You Go to Listen* is a reference to a Naalagiagvik, which Alex Ross describes as "a place on the coast of the Arctic Ocean where, according to legend, a spiritually attuned Iñupiaq woman went to hear the voices of birds, whales and unseen things around her."[76] This reference to Iñupiaq culture has important ramifications both on Adams's choice of natural phenomena to translate into music and his method of linking the music of *The Place* with its Alaskan location.

The sound and light installation is not the first piece that Adams has titled "The Place Where You Go to Listen." Adams first attached this moniker to the opening section of *Earth and the Great Weather* (1990-1993), which Adams has referred to as an opera. The piece's libretto, which Adams refers to as the *Arctic Litanies,* is spoken in four different, frequently overlapping languages, Inupiaq, Gwinch'in, English, and taxonomic Latin.[77] This piece also includes three drum

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[74] Ibid.,114.
[75] Alex Ross, "Song of the Earth," in *The Farthest Place: The Music of John Luther Adams* (Boston: Northeastern University Press, 2012), 13.
[76] Ibid.
[77] Morris, "Ectopian Sounds," 137.

quartets, entitled "Drums of Winter," "Deep and Distant Thunder," and "Drums of Fire, Drums of Stone," that employ what Morris describes as "rhythmic cells abstracted from traditional Inupiat and Gwich'in music."[78] Adams clearly draws on Iñupiaq and Gwinch'in culture in part to root *Earth and the Great Weather* in a deeply Alaskan sense of place. Indeed, this piece is something of an outlier in Adams's output not only because of its unusually direct use of elements of Native Alaskan cultures, but because the field recordings made in the Alaskan wilderness that Adams makes use of throughout the piece.[79]

Adams also titled a 1998 essay "The Place Where You Go to Listen." This essay provides illuminating insight into the connection between these cultures, Adams's musical language, and the way these categories inform one another in *The Place.* The essay begins,

> They say she heard things…
> At Naalagiagvik, The Place Where You Go To Listen, she would sit alone, in stillness. The wind across the tundra and the little waves lapping on the shore told her secrets. Birds passing overhead spoke to her in strange tongues.[80]

It is important to note that all of the natural phenomena Adams draws upon for the installation other than seismic activity are actually totally silent. Just as the Iñupiaq woman in the story has a unique insight and understanding of the "secrets" of the little waves and the "strange tongues" of the birds, Adams's sound and light environment allows listeners to hear the "secret" voices of forces such as the phases

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[78] Ibid., 139.
[79] *Earth and the Great Weather* is the only piece in Adams output I am familiar that utilizes actual recordings of the Alaskan soundscape, marking yet another strategy Adams has employed to align his music with ecological listening.
[80] Adams, *Winter Music,* 5.

of the moon and the aurora borealis. Although the Iñupiaq woman listens to naturally occurring sounds while listeners in *The Place* hear music that Adams composed to sonify the activity of silent natural forces, they both suggest one can tap into mysterious, previously unheard sounds to gain a new understanding of the world.

Adams's essay is also clearly influenced by the thinking of American experimental composers, particularly Cage's concept of silence as discussed in the two preceding chapters. Adams writes that the Iñupiaq woman "did not question [the sounds]." The notion of "not questioning" sounds clearly evokes Cage's oft-stated goal to simply let sounds be sounds. More importantly, "The Place Where You Go to Listen" describes the act of listening to environmental sounds with concentration and focus for extended periods of time, an idea that Cage as well as many other experimental composers has engaged with. As we have already seen, Cage's *4'33"* served in part as a call for this sort of listening practice. Adams has written that the experimental composer Pauline Oliveros "practices an extremely difficult discipline: 'Always listen.'"[81] It is interesting to note how clearly this echoes his description of the Iñupiaq woman, "Before the wind and the great sea, she took for herself this discipline: always to listen."[82] By describing the Iñupiaq woman using concepts found in experimental music, Adams aligns his musical language with his interpretation of the thought and philosophy of nature found in Native Alaskan cultures.

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[81] Adams, *Winter Music,* 58.
[82] Ibid., 5.

Adams's engagement with these philosophies is in some respects comparable to Cage's musically oriented interpretations of Zen Buddhism. As David Patterson observes, Cage's borrowings from Asian philosophy "were not so much faithful transcriptions of ideas as they were carefully constructed intellectual subversions."[83] Patterson refers here to Cage's frequent practice of citing various South and East Asian sources, particularly the writings of Daistz Teitaro Suzuki and applying their ideas about the elimination of the ego to the composition of music while ignoring the philosophy and aesthetics of these writers that apply specifically to music. While Adams uses language that refers back to essentially aesthetic Western listening practices, he does not imply that the Iñupiaq woman is listening aesthetically, but rather that she is connecting strongly to both her place and nature through listening. This clearly demonstrates what Adams views as the middle ground between the listening and compositional practices of experimental music and the experience and appreciation of nature in Alaskan Native cultures.

This raises the obvious question of whether Adams's engagement with Alaskan cultures should be considered in terms of cultural appropriation. Indeed, Adams's writings on his engagement with the musical traditions of Native Alaskan cultures express his own anxieties and sensitivity toward the issue of applying ideas about music and nature to a setting far removed from their original cultural context; he notes, "Globalism contains within it the seeds of cultural colonialism."[84] Adams compares cultural appropriation to the development and destruction of the natural

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[83] David W. Patterson, "Cage and Asia: History and Sources," in *October Files: John Cage,* ed. Julia Robinson (Cambridge, Massachusetts: The MIT Press, 2011), 51.
[84] Adams, *Winter Music,* 17.

world, writing, "Like our precious remnants of physical wilderness, the cultures of the 'developing world' are viewed as storehouses of raw materials and products for exploitation and consumption."[85] He goes on to denounce the attitude that leads to the exploitation of both the environment and the cultures of the "developing world" when he writes, "Ultimately our survival as a species may depend on our respect for and defense of cultural and biological diversity."[86]

Indeed, Adams engagement with the indigenous cultures of Alaska clearly goes beyond merely exoticizing his music or home state. In her discussion of *Earth and the Great Weather,* Sabine Feisst describes the piece as "what Ralph P. Locke calls a 'consciously multicultural' work from a 'composer with feet in two different cultures.'"[87] This is significant because environmentally aimed American art, and particularly Alaskan art, frequently erases the Native American presence in favor of "pristine" and unpopulated wilderness. As Susan Kollin writes,

> The myriad ways in which Alaska has been mythologized in the U.S. spatial imagination as a wilderness site part excellence have in turn displaced and marginalized the concerns of indigenous people in the region. Environmental sovereignty for many Alaskan Natives thus involves countering visions and uses of the land as a Last Frontier, an imperiled wilderness in need of protection or a pristine, unsullied terrain that time has somehow forgotten.[88]

Adams avoids these associations by naming *The Place Where You Go to Listen* after an Iñupiaq legend, thus acknowledging the Native Alaskan presence in the region and creating a model for the human experience within nature rather than a static picture postcard version of a timeless, untouched wilderness. As always, it is the

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[85] Ibid., 18.
[86] Ibid.
[87] Feisst, "Music as Place, Place as Music," 31.
[88] Kollin, *Nature's State,* 129.

human perception of the broader world that is highlighted, rather than simply the idea of "nature."

The influence of Native Alaskan thought runs deeper than simply referencing an Iñupiaq legend in the installation's title. According to Jack Forbes, many Native Americans consider nature "dynamic and unpredictable, and humans are not typically thought to be separated or distanced from it."[89] While I certainly do not to wish to paint Native American thought with a single broad brush, it is important to observe just how closely *The Place* is informed by a view of nature as something constant, dynamic, and intrinsically connected to the human experience. In order to understand how *The Place* embodies these concepts, we must first look at what separates the installation's representation of nature from *In the White Silence.*

Natural cycles as gradual processes

The most significant differences between *The Place* and *Silence* stem from the guiding role that musical translation plays in the installation. In *The Place,* surface complexity and long-range predictability are not the result of rhythmic organization, but rather directly reflect the rhythms of the natural forces Adams has chosen to sonify. In spite of this, *The Place* is in many ways a completely logical extension of Adams's principal musical concerns. As we have seen, the juxtaposition of different tempo layers guided by gradual processes plays a crucial role in *Silence*. The superimposition of different musical layers is a driving force in *The Place* as well. There are a number of crucial differences between the layers of *The Place* and the

[89] Ibid.,130.

tempo layers of *Silence. In the White Silence* creates impersonal sounding simultaneities through the use of multiple tempo layers guided by musical processes. While the listener perceives these layers as different tempos, they nevertheless all have a tuplet relationship to a shared underlying pulse.

While the five musical layers that comprise the sonic element of *The Place* operate in very different ways from those heard in *Silence,* the important underlying principals of seemingly unplanned juxtapositions, independent motion, and gradual process still apply. The different layers of *The Place* cannot be labeled "tempo layers," however, because the piece does not have a tempo in any traditional sense of the word. *The Place* is organized by the time cycles of the natural forces it sonifies rather than by time signatures and metronome markings. As Herzogenrath writes, "Adams not only *imitates* nature in its manner of operation, as does Cage; he taps into nature's dynamic processes themselves."[90]

Cage imitated the operations of natures through his use of chance. Chance, quite possibly the single most important feature of Cage's mature style, plays a critical role in *The Place.* By allowing natural phenomena to govern the presence, volume, and range of different layers of the composition, Adams similarly seems to relinquish control of how his piece will sound at any given moment.

Although Adams uses natural forces to control the musical shape of *The Place,* his particular method of imitating nature's manner of operation ultimately takes a very different form than it does in Cage's work. As important as chance is to *The Place*, it is certainly not the dominant feature of Adams's compositional process.

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[90] Herzogenrath, "The Weather of Music," 229.

Cage, on the other hand, attempted to leave as much of his compositions up to chance as possible. Chance dictated pitch content, rhythm, dynamics, meter, tempo, and other factors in compositions such as *Music of Changes* (1951).

The total elimination of compositional choice is clearly not something that interests Adams. While he relinquishes control over the exact timing and intensity of the different voices of *The Place,* he retains control over just how these voices respond to different environmental data, and still more fundamentally predetermines what data they will be responding to. In the journal the composer kept while he worked on the installation Adams frequently writes about his efforts to make sure the music of *The Place* blends well together. In many ways, chance in *The Place* is closer to the open form found in pieces like Terry Riley's *In C* (1964), or his own first mature composition, *songbirdsongs* (1974-80). In both of these pieces, performers are provided with brief musical phrases and instructions on how to introduce these phrases into the musical texture, though ultimately the exact timing and juxtaposition of these phrases is left to the performer's discretion.

While Adams does not control the exact timing and intensity of the different voices of *The Place,* they are carefully composed so that all possible combinations will produce results that Adams is pleased with. Although chance plays a large role in the sound and form of *The Place*, the result always sounds distinctly like an Adams composition and adheres to Adams's taste and discretion, which is precisely what Cage was trying to avoid by incorporating chance into his compositions. This ultimately boils down to the most crucial distinction between these composers' approach to the imitation of nature in music: while Cage imitated nature a way of

avoiding choice in his compositional process, Adams is concerned with representing the experience of these forces. Although certain aspects of *The Place* harness the spontaneity of natural forces, Adams retains his control of the installation's sound to ensure that these representations will be legible to listeners.

While *The Place Where You Go to Listen* does not embrace Cage's notion of total chance, it does reflect one of the most important concepts embedded in his music. Cage's dictum of letting sounds be sounds not only expanded the vocabulary of musical sounds, but also represents a fundamental change in who is granted the power to create music. In the long tradition of Western art music the composer is generally considered to be the person granted agency to "create" a piece of music. By reframing the non-composed sounds found in the concert hall as music in *4'33"*, Cage posits that it is the listener who creates the music by choosing to listen to and interpret the sounds heard in a musical way. This is obscured and in many ways undermined by the inherent theatricality of a performance of *4'33",* but it is reinforced by Cage's own discussions of sound and this piece in particular. In conversation with William Duckworth, Cage said, "No day goes by without my making use of [*4'33"*] in my life and in my work. I listen to it every day… I don't sit down to do it; I turn my attention toward it."[91] For Cage, the moment of musical creation occurs when a listener decides to consider a sound music.

This concept of the empowered listener creating his or her own musical experience has left an important impact on Adams's musical representations of natural experiences. Adams's music and *The Place* in particular often seem not to

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[91] Gann, *No Such Thing as Silence,* 186.

suggest a pictorial representation of nature frozen in time, but rather implies that a connection to the natural forces we are surrounded by is always possible if we choose to tap into it. In Adams's concert music, this sense of listener control is constructed through the use of slowly unfolding textures moving at different tempo layers. The result is a relatively static and complex texture that is nevertheless clear enough for listeners to pick out individual tempo layers to focus on if they choose to.

The Place, however, allows the listener even greater freedom to shape their musical experience. In addition to featuring the same sort of dense, multilayered musical textures as his concert pieces, its open timeframe allows listeners to create their own unique experience of the work by entering and leaving the space. While *Silence* models the quiet contemplation of nature in the closed time frame of a concert setting, *The Place* is itself a sound and light environment that a listener can choose to enter and contemplate for as long as he or she chooses. While this remains an abstract musical representation, it nevertheless mirrors the experience of consciously choosing to enter a space to experience nature far more closely than a can be done in a concert work.

The element of chance in *The Place* is ultimately musically connected to the work of Steve Reich just as much as it is Cage. As was noted in Chapter Two, process allows Reich to both tap into the impersonal and maintain complete control over his music.[92] At first listen, the sporadic, sometimes startlingly loud and abrupt interjections of Earth Drums and Aurora Bells seem far removed from the steady, predictable patterns of gradual process. Reich's description of gradual process as

[92] Reich, "Music as a Gradual Process," 305.

simultaneously fully controlled and impersonal, however, applies perfectly to *The Place.* This is heard most clearly in the Aurora Bells and the Earth Drums, because they are based on dynamic, random natural forces. Although these musical layers are far more spontaneous and unpredictable than anything found in the process-controlled world of Adams's concert music, they ultimately give *The Place* the same complex surface texture already identified in *Silence.*

The examination of the phenomena the piece is based on reveals that Adams gives up less control than is initially apparent. As Tyler Kinnear writes, "*The Place* portrays a series of cycles, governed by predictable events, upon which unpredictable events penetrate the surface."[93] While the Earth Drums and Aurora Bells are unpredictable, the Day and Night Choirs as well as the Voice of the Moon are based on predictable natural cycles, though cloud cover does cause the Day Choir to fluctuate. Ultimately, the cycles that govern these layers function as gradual processes, though these processes are far more complex and work on a much larger time scale.

This sort of process is found in its purest form in the Voice of the Moon, which is controlled by two computer programs, MoonAngles and MoonPhases. These programs monitor the moon's phases as well as its position relative to the horizon and translate this data into music. In his book on the installation, Adams writes,

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[93] Tyler Kinnear, "Voicing Nature in John Luther Adams's *The Place Where You Go to Listen," Organized Sound* 17, special issue 3 (December 2012): 236, http://journals.cambridge.org/abstract_S1355771811000434.

> When the moon is below the horizon, it has a deep bass voice. As it rises, it glides continuously from baritone, to tenor, to alto, to soprano. The sound is produced by a narrow sweep of pink noise that follows the same pitch-to-height relationships as the Day and Night Choirs [the higher the moon is in the sky, the higher the pitch of the pink noise]. The bandwidth of this sweep varies from about a Major Third (408 cents) at the full moon to silence (0 cents), briefly, at the new moon.[94]

Just as *Silence* contained interrelated processes working at the level of the entire piece and within individual sections, two gradual processes govern the Voice of the Moon's development. These processes, however, operate at a far larger time scale than anything found in Adams's concert music. The gradual process that unfolds over the longest time frame is connected to the phases of the moon. The band of pink noise that represents the moon expands its range from silence during the new moon to a major third during the full moon, a process that takes nearly a full month to complete. Table 3.1, adapted from Adams's book on *The Place,* was compiled from "selected phases and heights in a single month (December 2006)," and demonstrates both the slow decrease in bandwidth as the moon wanes and fluctuation of The Voice of the Moon's bottom frequency with the change in the moon's height.[95]

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[94] Adams, *The Place Where You Go to Listen,* 124.
[95] Ibid., 126

Date, Time	Phase	Bandwidth (cents)	Height [Degree relative to the horizon]	Bottom Frequency (*Hz*)
12/5, 00:59	1.0	408 [Major Third+]	53.06	486.5 [A#/B4]
12/9, 12.51	0.75	305 [Minor Third+]	5.63	119.9 [A#/B2]
12/12, 5:46	0.50	204 [Major Second+]	29.83	231 [A/Bb3]
12/15, 00:18	0.25	102 [Minor Second+]	-24.83	48.9 [G1]
12/20, 5:18	0.0	0 [Silence]	-35.11	36.1 [C#/D1]

Table 3.1 The Voice of the Moon activity (December 2006). Table adapted from *The Place Where You Go to Listen: In Search of an Ecology of Music.* My annotations in brackets.

As this unfolds, another process is at work that moves at a far quicker pace (relatively speaking). While it takes a full month for the Voice of the Moon to move from silence to a major third and back again to silence, the cycle based on the position of the moon on the horizon takes approximately twenty-four hours to complete. The Voice of the Moon reaches a high soprano tessitura when the moon is at its peak in the sky, and moves to a lower bass register as the moon sinks below the horizon and out of visible sight. Furthermore, Adams pans the Voice of the Moon to follow the motion of the actual moon, originating from speakers close to the floor when the moon is below the horizon and emanating from overhead as it rises up in the sky. While Adams's concert music frequently features antiphonal effects that give his music a spatial quality not often found in Western concert music, none of these pieces control the motion of sound as rigorously or subtly as *The Place*.

The distinctions between *The Place* and *Silence* reveal a great deal about the connections of gradual processes to natural cycles in all of Adams's music. The interlocking processes found in *Silence* stem wholly from the imagination of the

composer and mirror the operation of nature in an abstract way. In *The Place Where You Go to Listen,* on the other hand, Adams harnesses a gradual process found in the natural world and uses it as an organizing principal for his music. Furthermore, this is an explicit part of the experience of the piece rather than a hidden formal device. When listeners enter *The Place,* they are greeted by a plaque that describes how natural forces shape the piece's musical layers. Even if a listener cannot identify the different voices and connect them with their corresponding phenomena, he or she is always aware that they are a musical translation of specific natural forces.

Adams's use of natural forces in *The Place* also highlights the way process music can affect our perception of time. As Kramer observes, process music often seems to exist in "vertical time," or stopped time, because "they are not hierarchic, and because their motion results from unchanging global principles. Their motion is so evenly paced and so predictable that it is not perceived as progression."[96] Process music, particularly Reich's phasing pieces, is often based on cycles that have a logical start and endpoint but nonetheless set up a pattern that could theoretically repeat endlessly. While it may seem like a stretch to suggest a piece with as obvious an endpoint as *Piano Phase* (1967) or *Clapping Music* (1972) suggests potentially eternal cycles, Adams's engagement with cycles in *The Place Where You Go to Listen* makes these subterranean tendencies of gradual process music explicit. While the process that governs the Voice of the Moon might be said to reach a logical endpoint when either the moon returns to its lowest point on the horizon or completes a full

[96] Kramer, *The Time of Music,* 389.

cycle of phases, the piece obviously does not end but rather begins its cycle anew just as the moon does.

Unlike Reich's phasing pieces, the operating hours of The Museum of the North make it literally impossible to hear a full cycle of even its briefest process in a single sitting. This takes Reich's notion of "a process happening so slowly and gradually that listening to it resembles watching a minute hand on a watch," to an extreme.[97] Just like the motion of a watch's minute hand, the musical language of *The Place* is both strongly connected to our living experience of moving through time and can seem to move so slowly that it appears completely static. And just like the minute hand on a watch continues to move after we decide to stop looking, *The Place Where You Go to Listen* continues to sound even after we decide to stop listening.

It is of course impossible to hear all the potential musical combinations of the different musical layers of *The Place,* which leads us to what might be the most important way the installation engages with the concept of eternity. Composers from La Monte Young to Olivier Messiaen have often suggested notions of the eternal through compositions that suggest the presence of unheard music that will continue after we are no longer listening. The most famous example of this might be found in the "Crystal liturgy" movement of Messiaen's *Quartuor pour la fin du temps.* In this movement, Messiaen establishes rhythmic cycles in the piano and cello that

[97] Reich, "Music as a Gradual Process," 305-6.

would take approximately 230 minutes to return to their original alignment and rhythmic position, though the movement itself ends well before this occurs.[98]

While the unending length of *The Place* is enough to establish it as a piece that contains unheard music, a particularly potent example of this can be found in Adams's loving description of the music he composed for the Night Choir. The range and depth of both the Day and the Night Choirs changes with the seasons. Just as the Day Choir reaches its top pitch and volume at noon on the summer solstice, the Night Choir hits a low of 24.27 Hz at midnight on the winter solstice.[99] This is made all the more significant because this cavernous tone, arrived at by "modulating" the rate of the rotation of the earth up to the lowest point at which it is perceptible to the human ear as pitch, is the fundamental frequency that *The Place* is tuned to.[100]

In spite of the structural importance this sonic extreme has to *The Place,* the Museum of the North unsurprisingly is not open at midnight, or indeed past five o'clock PM on any day of the year. As a result, listeners do not actually have the opportunity to hear the vast majority of the music that Adams composed for the installation. While this may be a source of frustration for listeners and quite possibly the composer, it is a particularly clear example of how *The Place* implies the existence of music beyond what we can actually hear. In *Inuksuit,* however, Adams does not merely imply an unending musical language but rather attempts to point our attention to the musicality of the sounds we are constantly surrounded by.

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[98] Anthony Pople, *Quatuor Por la Fin Du Temps* (Cambridge: Cambridge University Press, 1998), 26.
[99] Adams, *The Place Where You Go to Listen,* 120.
[100] Ross, "Song of the Earth," 14.

Chapter 4

***Inuksuit* and the Soundscape**

Inuksuit is Adams's first piece to engage directly with the soundscape. Many aspects of *Inuksuit*'s musical language are similar to those already identified in *Silence* and *The Place. Inuksuit*, however, also engages with new layers of sonic activity and spatiality that have a significant effect on the way the piece encourages us to consider our place within nature. One new and incredibly significant layer of musical activity is the pervasive presence of the unplanned environmental sounds of the performance space. These sounds are not an intrusion on the musical world of *Inuksuit,* but rather serve as an important aspect of the music itself that *Inuksuit* is specifically composed to highlight. The inclusion of environmental sounds into the musical language of *Inuksuit* is best understood in the context of both Cage's concept of musical silence and Schaefer's work on "soundscapes" and "acoustic ecology."

Allowing listeners to walk freely around the performance space creates another important new layer of activity. The nine to ninety-nine percussionists *Inuksuit* calls for are instructed to spread out around their chosen performance space so that listeners may wander amongst them freely and construct their own individual experience of the piece. As has been discussed previously, many of Adams's pieces give listeners agency to construct their own musical experiences. *The Place,* for example, allows listeners to enter and leave when they wish, thus constructing their own time frame for the musical event. In *Inuksuit,* however, the ability to move closer or farther away from musicians and other sound sources has

such a profound effect on the music that it can rightly be considered a separate layer of musical activity itself, one that allows an embodied engagement with *Inuksuit*'s sound world. *Inuksuit* also carries a far more explicit political message than most of Adams's work, thus casting the piece as a warning against human destruction of the environment. I argue that while *Inuksuit* continues the modes of representation found in *Silence* and *The Place*, the new elements that come along with outdoor performance allow Adams to musically represent humanity's place both within and as a force of nature and send an explicit message of environmental awareness and responsibility only implied in his earlier pieces.

Environmental disaster and listener agency in *Inuksuit*

In many ways, *Inuksuit* serves as a dire warning of looming environmental disaster, as can be seen in Adams's program notes for the piece: "This work is haunted by the vision of the melting of the polar ice, the rising of the seas, and what may remain of humanity's presence after the waters recede."[101] As was discussed in Chapter One, Alexander Rehding identifies a recent trend in American art toward environmentally centered work that either focuses on the nostalgic or the apocalyptic. Both Adams's program notes and the musical content of *Inuksuit* situate it comfortably on the apocalyptic end of this spectrum. Although Rehding primarily discusses this trend as it relates to film and literatures, he observes that this focus on environmental crisis "endows the literary products with political relevance,

[101] John Luther Adams, *Inuksuit* Program Notes, 2011, accessed January 6, 2015, http://inuksuit.tumblr.com/tagged/Program+Notes.

powerful realism, and—in a very literal sense—sublime terror."[102] Although Redhing goes on to bemoan the difficultly of applying the sense of urgency easily found in narrative mediums to instrumental music, this serves as an apt description of *Inuksuit*. Indeed, Adams has repeatedly referenced his interest with the Romantic notion of the sublime in music. In discussion of his orchestral piece *Become Ocean* (2013), which is also concerned with global warming, Adams says,

> You know, there's this 19th-century idea of the sublime: the idea that there is an inextricable wholeness to our experience of the world, that contains at once both beauty and terror. And I think I want to be right on that razor's edge.[103]

While many of Adams's works are informed by the notion of the sublime landscape, the more disaster-oriented sense of the sublime in *Inuksuit* strongly affects its political and environmental message. Although there is a political element in virtually all of Adams's music*, Inuksuit* serves not only as a model of human contemplation of the natural world, but as an explicit call for sustainability. This commitment to environmental awareness can even be seen in the piece's performance instructions, which specify, "When the performance has ended, there should be no physical trace that it ever took place."[104] In general, though, the political message of *Inuksuit* is less a call for specific action than it is a warning against the dangers of inaction. This sense of the beautiful and terrifying sublime is

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[102] Rehding, "Ecomusicology between Apocalypse and Nostalgia," 410.

[103] Arun Rath, "An Inviting Apocalypse: John Luther Adams on *Become Ocean*," *Deceptive cadence* from NPR Classical, September 28, 2014, accessed January 6th, 2015, http://www.npr.org/blogs/deceptivecadence/2014/09/28/350911062/an-inviting-apocalypse-john-luther-adams-on-become-ocean?utm_medium=RSS&utm_campaign=music.

[104] John Luther Adams, *Inuksuit: for nine to ninety-nine percussionists,* Notes for Performance, (Fairbanks, Alaska: Taiga Press, 2009).

in large part created through Adams's writing for percussion, which relies in large part on the same interlocking gradual processes, multiple layers of activity, and sense of moment-to-moment spontaneity found in *Silence* and *The Place.* These sublime qualities would not be as powerful, however, were it not for the new layers of musical activity that arise from the piece's outdoor performance setting.

Inuksuit takes Adams's longstanding concerns with listener control of the musical experience to new lengths. As it says in the performance notes, "The listener is encouraged to participate actively in shaping his or her own experience, by finding their own individual listening point, or by changing locations throughout the performance."[105] This has a profound effect on the listener's experience of the piece, particularly because performers can spread out of a considerable distance, depending on the performance space. Adams writes, "Ideally, any two players who are separated by the greatest distance should barely be able to hear one another when the other is not playing."[106] This balance allows for dramatically different sonic experiences, where musicians in close proximity to the listener might drown out those farther away. The freedom *Inuksuit* allows listeners is every bit as important to the piece as its scored musical material and outdoor setting.

This is another example of Adams's reinterpretation of experimental music techniques through the lens of environmental thought. We have already identified John Cage and *4'33"* as important precedents for Adams's engagement with listener agency. Even more specific forerunners can be found for the embodied control listeners are given in *Inuksuit.* Terry Riley's text composition *Ear Piece* (1961-2)

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[105] Ibid.
[106] Ibid.

focuses on a similar mode of personalized, listener-oriented music. In this piece, Riley collapses the notion of performer and audience, as can be seen in his performance instructions:

> THE PERFORMER TAKES ANY OBJECT(S) SUCH AS A PIECE OF PAPER CARDBOARD PLASTIC ETC AND PLACES IT ON HIS EAR(S) HE THEN PRODUCES THE SOUND BY RUBBING SCRATCHING TAPPING OR TEARING IT OR SIMPLY DRAGGING IT ACROSS HIS EAR[107]

Just as in *Inuksuit, Ear Piece* allows individual listeners to control their own sonic experience, and just like in *Inuksuit,* only those listeners hear the results.

La Monte Young and Marian Zazeela's sound and light installation *Dream House,* which has existed in its current form since 1993, also provides listeners with a similar agency to *Inuksuit.* The sonic component of *Dream House* consists of a single, highly complex chord tuned in just intonation and composed of sine waves. One of the most striking aspects of the installation is the extent to which the perceptible tones of Young's chord change as one moves around the room. Jeremy Grimshaw writes,

> I moved slowly around the room at various distances from the walls, noticing the sudden emergence or disappearance of the highest harmonics at certain points, observing the varying density and discernibility of the mid-range cluster as I drew closer to or farther away from the speakers, and eventually, after spending several hours walking, sitting, and reclining in various spots in the room, wondering what tones I might find tintinnabulating nearer the ceiling if I were to bring a ladder.[108]

Both *Dream House* and *Inuksuit* allow listeners to shape their musical experience through their physical exploration of the piece's space.

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[107] Reprinted in Keith Potter, *Four Musical Minimalists: La Monte Young, Terry Riley, Steve Reich, Philip Glass* (Cambridge: Cambridge University Press, 2000), 100.
[108] Jeremy Grimshaw, *Draw A Straight Line and Follow It: The Music and Mysticism of La Monte Young* (Oxford: Oxford University Press, 2011), 140.

Indeed, it might even be said that listeners are responsible for shaping *Inuksuit* in the same way that all of us are responsible for shaping the natural world. Even if a listener decides to stay in a single spot for the duration of the piece, they are still shaping their experience of the piece just as we all inevitably shape the portions of the natural world we come in contact with. Additionally, environmental sounds form a core element of the musical language listeners engage with by moving around the space. These environmental sounds both reinforce and complicate Adams's message of environmental engagement and responsibility.

The presence of environmental sounds in *Inuksuit* not only adds a new and revealing depth to Adams's portrayal of environmental engagement, but also plays an important role in imparting a sense of the apocalyptic to the piece. Once again, Adams expands the conventional notion of a musical timeframe, albeit in a very different way than in *The Place.* Both the beginning and end of *Inuksuit* are carefully composed to mask exactly when the piece seems to start and finish. The piece begins with the sounds of exaggerated breathing. As Adams describes it, performers use a breathing instrument, which can be a megaphone, bullhorn, microphone, trumpet, or horn, and "vocalize (with sounds such as 'shhhhhh' 'aaaaaah' or 'oooooh', or very breathy whistling) on the edge of tone."[109] These sounds are so subtle that it can be difficult to determine precisely when the piece begins.

This ambiguity is even more pronounced at the end of the piece. *Inuksuit* ends with birdsongs played on glockenspiel and optional piccolo by only one of the three percussion groups in the piece. These eventually become so sparse that

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[109] Adams, *Inuksuit,* 3.

listeners are drawn deeply into the surrounding environmental sounds. As a result, listeners are so in tune with the music of the soundscape that the piece can seem to go on long after the performers have stopped playing. Adams acknowledges this when he writes,

> At the beginning and end of the performance, there may be relatively long rests between composed sounds. In these pauses, the music of the place becomes part of *Inuksuit,* which in turn becomes part of the continuing music of the place. When you have finished playing, you may remain at your final location, or walk and listen for as long as you like.[110]

Just as we saw in *The Place, Inuksuit* engages with time scales that extend far beyond the actual length of the listeners experience with the piece. *Inuksuit,* however, accomplishes this with very different means and with different consequences. Whereas *The Place* seems to imply that Adams's musical translations of environmental data stretch beyond the listener's actual experience of the piece, *Inuksuit* draws our attention to a sonic presence that is quite literally always there.

***Inuksuit* and the soundscape**

More than anything else yet discussed in this paper, this musical and environmental engagement with the soundscape owes a strong debt to the work of both John Cage and R. Murray Schafer. As was discussed in Chapter Two, Cage and Schafer share an interest in the serious consideration of the artistic qualities of environmental sounds, but Schafer is far more critical of the sound world modernity has created. Cage's open acceptance of any and all environmental sounds is demonstrated by his famous quote, "The first question I ask myself when something

[110] Ibid.

doesn't seem to be beautiful… is why do I think it's not beautiful? And very shortly you discover that there is no reason."[111] Schafer, on the other hand, is deeply concerned with what he views as the potentially disastrous effects of noise pollution.

Schafer demonstrates just how seriously he takes the threat of harmful sounds when he writes, "It would seem that the world soundscape has reached an apex of vulgarity in our time, and many experts have predicted universal deafness as the ultimate consequence unless the problem can be brought quickly under control." While Adams drew upon Schafer's work to represent the Alaskan tundra as an idealized, hi-fi soundscape in *Silence,* in *Inuksuit* he seems to take a position between the relative extremes that Cage and Schaefer represent. Both *Inuksuit* and *4'33"* accept totally unplanned environmental sounds without judgment or distinction, regardless of whether they were made by a songbird or a bulldozer. I first heard *Inuksuit* in a 2011 performance at Morningside Park in Manhattan, where the sounds of traffic were a prominent component of the soundscape. At first glance there is something very odd about a piece "haunted by the vision of the melting of the polar ice" elevating the sounds of traffic to music. This is further complicated by Adams's stated sympathies with Schafer's conception of acoustic ecology.

In spite of this, *Inuksuit* engenders an attitude toward listening that owes a clear debt to Schafer's thought. In his book *The Soundscape: Our Sonic Environment and the Tuning of the World,* Schafer outlines two important concepts regarding environmental sound, "ear cleaning" and "clairaudience." Schafer defines "ear

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[111] Kay Larson, *Where the Heart Beats: John Cage, Zen Buddhism, and the Inner Life of Artists* (New York: The Penguin Press, 2012).

cleaning" as "a systematic program for training the ears to listen more discriminatingly to sounds, particularly those of the environment," while "clairaudience" refers to "exceptional hearing ability, particularly with regard to environmental sound."[112] Schafer argues that only enhanced awareness and sensitivity toward environmental sounds will lead us toward developing a healthier soundscape.[113] As has already been pointed out, *Inuksuit* is specifically composed to draw the listener's attention toward environmental sounds. As Adams writes, *Inuksuit* "is intended to expand our awareness of the never-ending music of the world in which we live, transforming seemingly empty space into more fully experienced place."[114] Thus, *Inuksuit* might be considered an "ear cleaning" activity in and of itself, encouraging listeners to not only engage with their soundscape more consciously, but to appreciate the aesthetic qualities of these sounds.

Schafer's notion of ear cleaning, which calls for us to listen "discriminately," raises the question of whether *Inuksuit* might place value judgments on particular soundscapes. At first glance, *Inuksuit*'s inclusion of any and all environmental sounds into its musical language seems to be a clear divergence from Schafer's warnings against noise pollution and unclear, "lo-fi" soundscapes.[115] It is debatable whether or not *Inuksuit* can really be said to accept all possible soundscapes indiscriminately, however, although Adams does not explicitly warn against particular environmental sounds and even specifies that urban spaces are acceptable performance venues.

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[112] Schafer, *The Soundscape*, 272.
[113] Ibid., 4.
[114] Adams, *Inuksuit,* 3.
[115] Schafer, *The Soundscape,* 272.

The performance notes put a strong emphasis on balance and sensitivity to the sonic features of the performance space. In these notes, Adams makes recommendations for balance, suggests allocating several days for on-site rehearsal, and even specifies that larger spaces will require lower-pitched drums, whereas higher pitched drums are more suitable for small spaces.[116] While none of this prohibits particular sounds or sonic environments (with the exception of indoor locations), it does seem to imply that certain soundscapes may not produce the most satisfying performances.[117] To give an extreme example, a performance situated next to a noisy construction site might make it impossible to achieve a satisfying balance with the large drums and drown out the softer "breathing" all together. While *Inuksuit* does not seem to fully share in Schafer's criticism of the modern soundscape, both emphasize the value of balance.

The different reasons Adams and Schafer value this sense of balance reveals a great deal about both the divergence of their philosophies and *Inuksuit*'s relationship to the natural world. As was discussed earlier, Schafer expresses this concern for balance by advocating for hi-fi soundscapes. He views lo-fi soundscapes not so much as a byproduct and symptom of actions that destroy the environment, but rather as a separate and important environmental category in and of itself. This

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[116] Adams, *Inuksuit,* 1.

[117] There has been one indoor performance of *Inuksuit* in the Parkside Avenue Armory in New York City. The Armory is a particularly large venue that allowed performers and audience members to spread out over a wide space. It is worth noting that Adams visited the location first before deeming it an acceptable location for the piece.

can be seen in his warning that "when the rhythms of the soundscape become confused or erratic, society sinks to a slovenly and imperiled condition."[118]

Sonically, the balance Schafer calls for in the soundscape is the same sort of balance Adams seeks between the instruments and the performance space in *Inuksuit.* Both call for a clear sonic texture in which dynamic levels allow different layers of sound to be heard and identified by listeners. While this serves as an end in and of itself for Schafer, Adams uses this sense of balance in *Inuksuit* as a means of connecting humans more deeply to their place on the earth through the act of listening. While he does reference the idea that the world is going "deaf with human noise," this is always done in the context of valuing the "silence" of places Adams has repeatedly expressed an environmentally oriented concern for. Adams worked as an activist for years on a successful campaign to demand federal protection for what is now the Arctic National Wildlife Refuge.[119] While Adams has referenced the value of the Wildlife Refuge as one of the remaining soundscapes largely untouched by human activity, his longstanding concern for the area demonstrate that his interests extend beyond just a concern for the sounds of this place. This can be seen when Adams writes, "I believe the place we now call the Arctic National Wildlife Refuge is among the most sacred of places and that no amount of material wealth can justify violating or desecrating it."[120]

Inuksuit draws upon the same notions of Native Alaskan spirituality that were discussed in Chapter Three. While the spirituality that informs the piece at its

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[118] Schafer, *The Soundsacpe*, 237.
[119] Adams, *Winter Music,* 41.
[120] Ibid., 25.

deepest level is largely unchanged in *Inuksuit,* Adams uses several new methods for referencing and engaging with Native Alaskan cultures in this piece. "Inuksuit" is the plural form of the Inuit word *inuksuk,* which refers to ancient stone figures left in the upper regions of the Arctic by many different peoples to serve as messages and guideposts for other travelers. The literal translation of *inuksuk* is "that which acts in the capacity of a human."[121] The image of the single stone sentinel standing alone at the northernmost points of human activity informs the message and music at its most fundamental level.

The individual in the soundscape

Inuksuit also puts a greater stress on the human presence within and as part of the soundscape than any of Adams's non-outdoor work. Adams writes, "Each musician in *Inuksuit* should be a solitary figure, a singular marker in the larger landscape of the music and the place."[122] As the piece's subtitle "('…to act in the capacity of the human…')" indicates, the music that Adams composed for the piece represents a human presence within the soundscape. In order to understand how the image of the *inuksuit* informs this music and enables it to make its apocalyptic warning, it is necessary to examine the composed musical workings of *Inuksuit* in some detail.

Inuksuit divides the full ensemble into three groups, which can range in size from three to thirty-three musicians each (hence the piece being for nine to ninety-

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[121] Norman Hallendy, *Inuksuit: Silent Messengers of the Arctic* (Seattle: University of Washington Press, 2000), 22.
[122] Adams, *Inuksuit,* 2.

nine percussionists). Adams's specification that these groups should always have an equal number of players further reinforces the piece's emphasis on balance. The music for each group is divided into five sections, as can be seen in the piece's "event map" provided in Figure 4.1. For example, Group One begins with "Breathing," in which musicians take slow, exaggerated breaths through some form of megaphone, "Calls," which is sounded on conch shells, "Waves," which is performed on sirens, "Clangs," which is performed on handbells, and "Wind," which is performed on triangles. While Group One makes exclusive use of hand held instruments and are mobile throughout the performance, both Group Two and Group Three are mobile for their first sections before moving to percussion stations that have been set up throughout the performance site.

Example 4.1: *Inuksuit* Event Map

***Inuksuit:* Event Map**

GROUP 1	*Breathing*	*Calls*	*Waves*	*Clangs*	*Wind*	
	through megaphone (bullhorn, microphone, trumpet, or horn)	conch shell trumpet (Tibetan trumpet, airhorn, plastic horn, other horn or trumpet)	siren (timpano, wind machine (or water gong)	handbell (suspended bell, chime, temple bell, or Tibetan cymbals)	triangle (or small bell(s))	
GROUP 2	*Wind*	*Inuksuit (rising)*	*Waves*	*Inuksuit (falling)*	*Wind*	
	rubbed stones (maracas, rattles, shakers, sandblocks, rice in drum, or other friction sounds)	tom-toms and bass drum	tom-toms and bass drum	tom-toms and bass drum	sizzle cymbal	
GROUP 3	*Wind*	*Inuksuit (rising)*	*Waves*	*Inuksuit (falling)*	*Birdsongs*	
	whirled tubes (blown tubes, bullroarer, or other Aeolian instruments)	suspended cymbals and tam-tam	suspended cymbals and tam-tam	suspended cymbals and tam-tam	orchestra bells (with optional piccolo parts)	
TIMELINE	00:00	ca. 10:00	ca. 28:00	ca. 46:00	ca. 64:00	ca. 74:00

Performers are instructed to spread out in concentric circles, with Group Three surrounding the center of the performance space and Group One spread out around the outer edge. This allows listeners more agency to shape their experience by navigating amongst the musicians. It also ensures that the ensemble will not blend "orchestrally" to sound as a single, massive musical instrument, but instead causes all the individuals and their separate musical statements to stand out. While the majority of Western musical ensembles strive for a unified sound, the *Inuksuit* ensemble models itself after the *inuksuit*, in that every player stands as a single human presence in the surrounding sonic world.

Adams relies on both musical processes and limited indeterminacy to imbue the musicians in *Inuksuit* with this sense of independence. I say "musical processes" rather than "gradual processes" here because not only does Adams use fewer processes than in *Silence* or *The Place,* but the processes that he does use are rarely audible. Reich distinguishes gradual process from simply process when he writes, "John Cage has used processes and has certainly accepted their results, but the processes he used were compositional ones that could not be heard when the piece was performed."[123] Although Adams's processes in *Inuksuit* resemble Reich's gradual process music more closely than they resemble Cage's chance pieces, it is ultimately Adams's engagement with indeterminacy in this piece that prevents these processes from being audible.

Group One's "Breathing" section provides a clear example of this. On paper, this section follows an obvious gradual process. As can be seen in Example 4.2,

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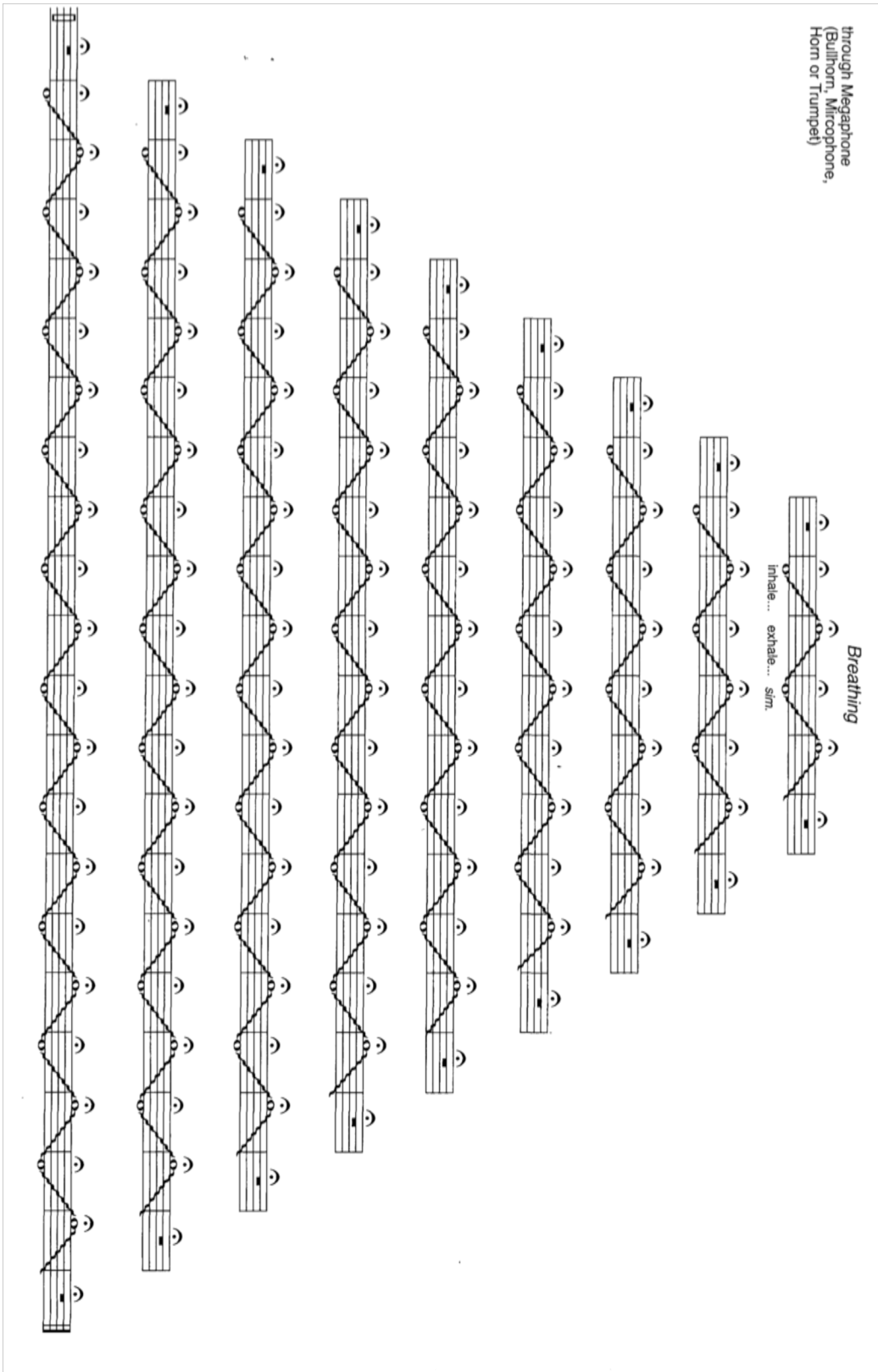
[123] Reich, "Music as a Gradual Process," 305.

performers are first instructed to take two long breaths that rise in pitch on inhaling and fall in pitch on exhaling. The next line of the section notates three long breaths, and the line after that specifies four. This continues until the performer is instructed to take ten long breaths. Each inhalation and exhalation is marked with a fermata, and each line starts and ends with a whole rest marked with a fermata, indicating that the breaths and silences need not have a specific rhythmic value.



Example 4.2: Breathing

This would be a clearly audible gradual process were the part played by a single performer. In the context of *Inuksuit,* however, every member of Group One takes these breaths at their own pace, making no effort to stay on pace with other performers in the same group. While Adams specifies ♩ = 40 to 60 as an approximate tempo, the piece has neither a conductor nor a single, unified pulse.[124] Furthermore, musicians perform "Breathing" as they spread out over a potentially large performance space while at the same time as Groups Two and Three perform "Wind." This results in a very complex musical texture that makes it virtually impossible to notice that each individual performer is adding another inhalation and exhalation after each pause. While there are other examples of processes within the structure of *Inuksuit,* the workings of each are ultimately masked through similar means.

This is particularly significant because, as has been previously discussed, *Silence* and *The Place* use gradual processes in part to represent the soundscape as something unending. *Inuksuit*'s engagement with unfiltered environmental sounds makes this sort of representation unnecessary. Rather, process in *Inuksuit* is a means of avoiding self-expression and engaging with what Reich refers to as the impersonal. These processes are not a metaphor for the cycles of nature, but rather are a means of imitating the inexpressiveness of environmental sounds. Indeed, Adams rather directly imitates the sounds of nature at several moments in *Inuksuit.* The "Breathing" section is meant to invoke the sound of wind, and the piece closes with glockenspiels and piccolos playing transcriptions of birdsongs. This might

[124] Adams, *Inuksuit,* 4.

seem strange when one considers that the musicians in *Inuksuit* are meant to "act in the capacity of the human," but ultimately this is what makes this engagement with the impersonal sounds of nature so meaningful. Adams's imitation of inexpressive environmental sounds in the human element of *Inuksuit* indicates that humanity is ultimately not separate from nature, but is intrinsically linked with it. *Inuksuit* becomes a part of the environment rather than standing separate from it.

This message of humanity as a single facet of nature is only enhanced by the environmental sounds the piece engages with. There is a certain temptation when discussing *Inuksuit* to totally separate environmental sounds as purely "natural" and composed sounds as purely "human," but of course it would be impossible to perform the piece in a setting where the environmental sounds were fully untouched by humanity. Just as the sounds of human music intermingle with the music of the natural world in *Inuksuit,* in most of the world the sounds of the environment are mingled with the sounds of humanity and technology. *Inuksuit* serves to remind us that humanity is not separate from nature, but rather is a part of it, and that we must maintain a balance with nature if we wish to continue to survive on this planet.

Given the piece's strong environmental message, Adams's invocation of the Inuksuit is particularly significant given the role these stone figures play in Inuit culture. As Norman Hallendy writes, the *inuksuit* frequently serve as messengers.

> Some would indicate the location of a safe harbor or a dangerous passage. To a hunter, they revealed where food was cached, where migrating animals tended to be at certain times of the year or where preferred routes had their beginnings. Some stone markers placed on the landscape pointed the way to a spring hidden from view, to the

> entrance to a narrow pass or to a natural shelter that could be used in time of dire need.[125]

Adams's musical *inuksuit* also serve as messengers. Rather than informing passing travelers of hidden food or hunting paths, these *inuksuit* convey Adams's message of humanity's place within vast natural forces and ultimate impermanence. Adams grounds the sense of the eternal we have identified in *Silence* and *The Place* in the scientific when he writes that one of the principal questions *Inuksuit* is meant to raise is, "How do we understand the brevity of our human presence in the immensity of geological time?"[126] Thus these gestures toward far vaster timeframes are not meant to represent a religious notion of an eternal paradise, but rather to characterize nature as ancient and vast beyond our comprehension. This also allows Adams's music to strive toward the sublime by emphasizing the human perspective and highlighting our place within these forces.

At its broadest level, *Inuksuit* emerges from the sounds of the world around us, rises to great volume, and fades back into environmental sounds. David Shimoni has argued that because *Inuksuit* engages directly with environmental sounds rather than musical representations of those sounds, the piece is able to serve as a microcosm of humanity's presence on the earth.[127] The musicians that "act in the capacity of the human" emerge out of and sink bank into a sound world that has existed long before humanity. Although humanity has been able to greatly affect the world around us, our existence is ultimately only a momentary event in the vast

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[125] Hallendy, *Inuksuit,* 22.
[126] Adams, *Inuksuit,* 1.
[127] David Shimoni, "*songbirdsongs* and *Inuksuit:* Creating an Ecocentric Music," in *The Farthest Place: The Music of John Luther Adams,* ed. Bernd Herzogenrath (Boston: Northeastern University Press, 2012), 263.

expanse of time. As a result, *Inuksuit* can be interpreted as a musical representation of our own extinction. Shinomi writes of the piece's ending, "Is this a view of 'what might remain of humanity's presence after the waters recede'? If so, is it a world of humans blending in with their surroundings, or are the humans gone?"[128] *Inuksuit* ultimately serves as a reminder both of the fragility of human existence on this planet, and of our essential connection with the earth. It seems to imply that we must learn to live in balance with natural forces that have existed long before us, and will ultimately carry on regardless of our survival.

While this warning sounds rather grim, *Inuksuit* ultimately conveys its message less through programmatic pictures of disaster than by musically heightening our connection to the world around us. If *Inuksuit* suggests that we are caught in a sweep of time and natural forces that dwarf us, it also suggests that these forces are deeply beautiful. In his review of the piece, Alex Ross notes *Inuksuit*'s warning of environmental disaster, but describes his sonic experience of the piece as rapturous rather than fearful or depressing.[129] Ultimately *Inuksuit* attempts to create political change less by calling for specific action than by deepening the audience's connection to their place on the earth through the act of deep listening.

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[128] Ibid., 264.
[129] http://www.newyorker.com/magazine/2011/03/14/reverberations

Chapter 5

The Politics of Ecological Listening

This study has attempted to show the connection between John Luther Adams's music and his conviction that the experience of listening intently to the world around us is ultimately an ecological act. This underlying conviction is expressed in a diverse body of work using a number of distinct musical strategies. *In the White Silence* imitates the impersonal quality of environmental sound through its use of interlocking gradual processes and multiple tempo layers. *The Place Where You Go to Listen* is shaped by the continual flow of environmental data from around Alaska, thus allowing visitors to listen to music shaped directly by natural forces. In *Inuksuit,* the environmental soundscape of the performance is an active part of the musical texture. Not only is the soundscape a part of the music, but as we have seen the piece is specifically composed to tune listeners into their surrounding sonic world even after the "human" music has faded away. Ultimately, each piece relies on making the listener feel rooted both in a sense of the eternal and the immediate, though they achieve this through very different means.

Adams does not view humanity and nature as oppositional or even separate spheres, but rather views humanity as part of the fabric of the natural world. This is revealed not only through his compositions, but also through his writings. For example, Adams posted a poem entitled "Prayer for the New Year" to his Facebook page on December 31, 2013, in which he writes,

> May we never forget that everything we are and everything we do
> comes from and returns to the earth.

> May we recognize that, divorced from what we call "nature," we devolve toward oblivion.
>
> May we live by the knowledge that our own true nature is to be one with Creation.[130]

This belief in the fundamental unity of humanity and nature stands in sharp contrast with much of the criticism that nature-inspired music has received. Theodor Adorno in particular argued that naturalistic art "attains only a specious affinity with nature because, like industrial production, it reduces nature to its raw material."[131] Indeed, it is not particularly difficult to image Adorno arguing that *The Place* functions as a sort of factory, taking in the raw material of environmental data and converting it into a cultural product.

This stems in part from the fundamentally different ways Adams and Adorno define nature. Whereas Adams's music goes to great length to highlight the falsity of the distinction between humanity and nature, Adorno views the realms of art and nature as fundamentally separate because "wholly man-made, the work of art is radically opposed to nature, which appears not to be so made."[132] Adorno argues that "nature" is ultimately only another ideological construction ready for commodification in late capitalism. He writes,

> As technology and, more important, the principle of commodity exchange go on expanding, natural beauty increasingly takes on a

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[130] John Luther Adams, "Prayer for the New Year," December 31, 2013, accessed February 5, 2015, https://www.facebook.com/john.l.adams.9/posts/10202028296740276.
[131] Theodor W. Adorno, *Aesthetic Theory,* ed. Gretel Adorno and Rolf Tiedemann, translated by C. Lenhardt (London and New York: Routledge & Kegan Paul, 1972), 97.
[132] Ibid., 91.

> merely contrasting function, in which it is easily subject to co-optation by the reified world it opposes.[133]

On the other hand, Adams's work and writings suggests that even though the systems of late capitalism are in danger of throwing the world into such disarray that humanity can no longer survive, they are still inescapably connected to the forces of the natural world. This view of humanity's inescapable place within nature has its roots in the environmentalist movement. As Morris writes, "Many of Adams's pieces reveal a rethinking of the relationship between human beings and the natural world which finds its strongest resonances in the environmental movements of the late twentieth century."[134] Though Adams has not aligned himself with a specific eco-sensitive discourse, the view of humanity as a part of nature is perhaps expressed most purely in the Deep Ecology movement. The term "Deep Ecology" was coined by the Norwegian philosopher Arne Naess in 1972, and is used to express the idea that all life on the planet has intrinsic value. As Bron Taylor and Michael Zimmerman write in the *Encyclopedia of Religion and Nature,*

> Naess and most deep ecologists, however, trace their perspective to personal experiences of connection to and wholeness in wild nature, experiences which are the ground of their intuitive, affective perception of the sacredness and interconnection of all life.[135]

Another, perhaps even more significant source for Adams's view of humanity's place within the natural world stems from the spiritual and philosophical beliefs of the Inuit people. As Frédéric Laugrand writes, "According to

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[133] Ibid.,
[134] Morris, "Ectopian Sounds," 131.
[135] *The Encyclopedia of Religion and Nature,* "Deep Ecology," by Bron Taylor and Michael Zimmerman, (London and New York: Continuum, 2010), http://www.oxfordreference.com.ezproxy.library.tufts.edu/view/10.1093/acref/9780199754670.001.0001/acref-9780199754670-e-237?rskey=aHenFR&result=1.

the Inuit, nature does not exist as such. Human and nonhuman beings including non-living objects belong to one continuum of the same domain."[136] As was discussed in Chapter Three, Adams frequently references Inuit culture in his music. As we have seen in regards to Adams's essay "The Place Where You Go to Listen," he frequently refers to Inuit culture not only as a musical inspiration, but also as a model of ecologically aware listening. In his essay "The Indigenous Context," Adams refers to the music of Native Alaskan cultures as "[resonating] with the experience of living and listening in this place for thousands of years."[137] It is also worth noting that Adams's two outdoor compositions, *Inuksuit* and *Sila: Breath of the World,* not only engage directly with environmental sounds, but also both have names drawn from Inuit culture. In his program notes for *Sila,* Adams writes, "We're invited to receive messages not only from the composer and the performers, but also from the larger world around us."[138] It is particularly telling that Adams refers to the larger world sending "messages" rather than sounds or music.

While Cage's important influence on Adams's conception of environmental sounds has already been discussed in some detail, both composers refer back to an earlier practitioner of ecological listening: Henry David Thoreau. Indeed, Thoreau's description of listening closely to environmental sounds during his time at Walden Pond was greatly influential on both Cage and Adams. Although Thoreau's writing

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[136] *The Encyclopedia of Religion and Nature,* "Inuit," by Frèdèric Laugrand, (London and New York, Continuum, 2010), http://www.oxfordreference.com.ezproxy.library.tufts.edu/view/10.1093/acref/9780199754670.001.0001/acref-9780199754670-e-451?rskey=6LM7pB&result=2.
[137] Adams, *Winter Music,* 18.
[138] John Luther Adams, "On *Sila: The Breath of the World,*" Mostly Mozart, Presented by Lincoln Center, 2015, http://mostlymozart.org/on-sila-the-breath-of-the-world.

discusses nature and society as fundamentally separate, he still includes sounds that rely on society and technology in his environmental listening. In particular, Thoreau valued the aeolian sound of wind blowing across the telegraph wires. As Douglas Kahn writes, Thoreau heard these sounds "as an expression of what he called *sphere music,* a singular, terrestrial version of the music of the spheres."[139] In spite of his view of society and nature as occupying fundamentally separate realms, Thoreau nevertheless views sound and listening as a bridge between these realms. As Kahn describes it, "It was not simply that he heard the aeolian in purpose-built and non-purpose-build technology; he heard an unintended nature in the midst of the most advanced media technology of his day."[140]

Adams's view of the basic interconnectedness of humanity and the forces of nature and listening as a means of exploring this basic unity undergirds all of his mature compositional output. This view affects not only Adams's musical language, but also how his music may be defined at its most fundamental level. While Adams has adopted Cage's consideration of environmental sounds as music, he has largely ignored his abdication of choice in composition. Indeed, Cage's use of indeterminacy can be seen as an effort to bridge the gap between the overly-determined, controlling music that makes up the Western classical tradition and the uncontrolled, frequently inhuman world of environmental sounds. For Cage and Adams, "silence" or "environmental sounds," does not indicate non-human sounds, but rather sounds that are not produced with specifically musical intentions.

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[139] Douglas Kahn, *Earth Sound Earth Signal: Energies and Earth Magnitude in the Arts* (Berkley, Los Angeles, and London: University of California Press, 2013), 45.
[140] Ibid., 46.

Adams's music reflects his view that ecological listening connects us more deeply to the earth and the forces that govern it. While Cage was primarily concerned with what he felt was an artificial division between "sounds" and "music," Adams appears to more concerned with the artificial barrier separating the human world in which his music is heard, and the natural world to which music connects us. Taken to its logical extreme, his viewpoint breaks down the barriers that separate the socially and technologically mediated systems that govern the production of music from the realm of the natural world. Adam's music thus suggests that we are a part of nature, and models a way of understanding our place within nature through listening.

The view of nature that informs this music must also be understood as an expression of Adams's environmental politics. After all, if one believes that there is no real distinction between human society and nature, it might follow that since all human activity is therefore "natural," humans cannot really hurt the environment. Adams obviously does not share this view, as evidenced both by his personal history and his frequent comments on the need for humanity to curb its destructive habits. Both Adams's view of humanity as a part of nature and his concern for our treatment of the planet can be seen clearly in the notes for his Pulitzer Prize winning 2013 orchestral composition, *Become Ocean.* He writes,

> Life on this earth first emerged from the sea. And as the polar ice melts and sea level rises, we humans find ourselves facing the prospect that once again we may quite literally become ocean.[141]

[141] John Luther Adams, *Become Ocean: for Orchestra* (Fairbanks, Alaska: Taiga Press, 2012).

In spite of this, however, Adams still has something of an ambiguous relationship to politics. In Corinna da Fonseca-Wollheim's *New York Times* article on Adams, he is quoted as saying,

> I'm highly suspicious of political art. I'm not a propagandist. I'm not trying in my music to teach a lesson or tell a story. I'm trying to discover a place and invite you into that landscape to find your own way and—if I'm lucky—get hopelessly lost in it.[142]

While this might seem to imply that Adams views his music as wholly apolitical, this is clearly not the case. Earlier in the article, Adams discusses the decision he made to give up environmental activism and pursue music full time when he writes, "I believe now that art is more essential to solving the problems facing the human animal than politics."[143] Although Adams does not view his music as "propaganda" or a "lesson," he nevertheless views it, and art in general, as a crucial tool for solving humanity's problems, the most critical of these being the current environmental crisis.

The answer to this seeming paradox may be found in what Adams hopes to achieve with his music. I would suggest that Adams does not view his work as explicitly political because it neither calls for specific legislative changes nor musically narrates a programmatic call to action. Adams's pieces are not musical letters to the editors as much as they are calls for us to rethink the way we interact with the world. It seems logical that if we were more aware of our place within a delicate web of natural forces political action would follow. Adams's music offers the

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[142] Fonseca-Wollheim, "A Composer Attuned to the Earth's Swirling Motion."
[143] Ibid.

act of listening as a means of achieving this heightened ecological awareness. Adams says,

> Music is not what I do; it's how I understand the world. We don't really create anything except answers to creation. Everything that we do, everything that we think, and everything that we think we create ultimately derives from this incredibly rich and complex and diverse world that we live in. It's impossible for us to separate who we are from where we are.[144]

This philosophy radiates through the diverse array of music Adams has composed throughout his career. Whatever ensemble or setting he composes for, Adams ultimately suggests that we should continue to listen deeply and attentively even after the music has finished.

[144] Ibid.

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