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One Hand Clapping: Hearing Zen in «Recueil de pierre et de sable»

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One Hand Clapping: Hearing Zen in «Recueil de pierre et de sable»

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CHAPTER I. Introduction

Two hands clap and there is a sound. What is the sound of one hand?

— Hakuin Ekaku (1676-1768), Zen *kōan* (Hori 1999)

1. Introduction

Like language, which shapes and brackets our abstract experience of the world through speech and voice, music addresses itself directly to the ear as sound. But although music and spoken language are both acoustic signals processed by the organ of the human ear, it is clear that music communicates experience which voice and language is not equipped to describe (Ihde 1976:58). In this sense, to listen to music is to be moved by that which is by nature abstract, sensuous and unsayable; for which language has no words. In the history of ethnomusicology, the question of "What does music communicate?" and thus "What does speech about music communicate?" traces back to the foundational theories of Charles Seeger (Feld 1984:1, referencing Seeger 1977). He lamented a "linguocentric dilemma," where the non-verbal information of musical experience must be rendered in speech, which must involve metaphors and other signs to communicate and give order to the rapid and intuitive manifold of significations that constitute musical experience (Feld 1984:13-15). Ultimately, to speak in metaphor about the nature of experienced music — to say that certain "music is x" — is to draw the "feeling" of that music to the facticity of the other realms of human experience (Rice 2003:158). Music perhaps finds resonance with Zen in this domain of unsayable experience.

In America, Buddhist and oftentimes "Zen" thought[1] in particular has had an impact on the arts. Music in the western art music tradition is no exception. Its use in western art music most famously traces back to the work of American composer John Cage (1912-1992). Cage's contact with Zen, largely through the reading the works and attending the lectures of Japanese Buddhist scholar D.T. Suzuki during the 1950s, transformed Cage's music (Larson 2012: 277-281). Not only did this contact foster Cage's use of aleatory compositional techniques,[2] but also facilitated his groundbreaking piece *4'33"* (1952), in which a performer remains still at the piano, not playing, fills the audience with four minutes and thirty-three seconds of silence. Cage biographer Kay Larson describes this piece a "perfect embodiment" of Suzuki's teachings (ibid.). Through his extensive writings, lectures, and overall vast sphere of influence, Zen ideas were injected into the mainstream of the WAM (western art music) world.

Cage was at the avant-garde of not only a musical, but also subcultural paradigm shift in the arts. Cage is but one of many composers in the WAM tradition including Takemitsu Tōru (1930-1996), Ichiyanagi Toshi (1933-), Jonathan Harvey (1939-2012), Philip Glass (1937-), and others who have appropriated Zen and/or Buddhist thought into their work. A relatively recent example of a composition predicated on Zen content is «Recueil de pierre et de sable»[3] (1998), a piece two harps, two flutes, clarinet, violin, viola, and cello, by American composer Joshua Fineberg (b. 1969). Fineberg describes the conceptual origins of this piece in its program notes as

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[1] As we will see, the term "Zen" may refer to many different things, from a Japanese form of Buddhist practice to a marketing symbol. In my usage, "Zen" is to be understood as a global system of beliefs, disseminated from Japan in various ways, especially since the turn of the 20th century.

[2] John Cage embraced the use of random or chance-based operations to compose music. He famously consulted the ancient Chinese divination text called the *I Ching*, or *Book of Changes* in order to make musical decisions free of the influence of his preferences, or his human ego.

[3] The arrows surrounding the title of the piece are French quotation marks. Because Fineberg is consistent in using these quotations when writing about the piece himself, I follow his example.

"named after [the French translation of] a book[4] written by the 13th century Zen monk Muju Ichien and takes its inspiration from the rock and sand gardens in and near Kyoto, Japan" (Fineberg. Accessed 2016). As I myself am a musician who has also been drawn to Zen ideas, the question of why Zen has become a locus of composition for artists such as Fineberg is very compelling. Buddhist scholars Gary Storhoff and John Whalen-Bridge suggest that perhaps it is related to Zen's power as an agent of transformation—as a promise of a new "way-to-be" (2010). As neueurologist and student of Zen James H. Austin writes, perhaps another such reason why one may choose to "etch" their mind in Zen is "[t]o yield striking ongoing constellations of perception, insight, attitudes, and behavior" (Austin 1998:3). Storhoff and Whalen-Bridge suggest that Buddhism in general has gained a remarkable following in America and developed its own unique American tradition, precisely for these reasons (2010).

Folding out from these beginnings, I argue that among there is a subculture of Anglophones (which I focus on in this thesis in particular) which in part constitutes a larger transcultural sphere of Westerners who engage with Zen Buddhism and Zen thought; and that a critical, unifying element of this subculture is a desire for personal transformation and new "ways-to-be." The people that participate in this subculture are not all artists and musicians, though many are. I suggest that by performing an ethnomusicologically-minded, subject-centered case study of the Zen-associated «Recueil . . .» of American composer, Joshua Fineberg, some "narrative coherence" may be brought to this subculture of Westerners who engage with Zen. I furthermore hope, perhaps loftily, that shifting to my own individual subject-perspective for my music-theoretical/semiotic analysis offers perspectives on music listening and musical experience—that is, some

[4] *Shasekishu* (1283) in Japanese.

sort of new "way-to-be"—that may be enriching for not only the ethnomusicologically minded, but anyone interested in Buddhist or Zen thought, or music listening in general. Towards these ends, I focus on two subjects: Joshua Fineberg, the composer, and myself, the listener and analyst, in order to provide a multilayered interpretation of the piece in cultural context and as an experience.

I follow the practice of using "subject-centered" musical ethnographies, as well as theories on the nature experience from phenomenology, in ethnomusicology. Used in this sense, the "subject" is an individual human being, and their musical "being-in-the-world."[5] Proponents of phenomenological and subject-centered approaches in ethnomusicology include Tim Rice (2003), Steven Feld (1994 [1984]), Harris Berger, and Thomas Turino (2014) (Barz & Cooley 2008:68). Rice remarks that in our world—a highly complex, ever-changing, nest of systems and locales, both real and virtual—"subject-centered" musical ethnographies offer productive perspectives for ethnomusicology. Tim Rice (2003) suggests that by focusing on individual subjects and their biographies, who occupy "slightly different positions but interact in time and place," such ethnographies may bring some "narrative coherence" to the increasingly complex world that we live in (Rice 2003:156-157). Rice follows the work of anthropologist Lila Abu-Lughod, whose article "Writing against Culture" (1991) was a progenitor of an epistemological shift towards the subject-position. Rice notes that through the development of these ideas by postcolonial and feminist scholars and critics of ethnographic writing, there emerged an argument "for tension, strain, and contestation among different social and temporal 'subject positions' within culture and against the ethnographic construction of an idealized, shared culture among, for ex-

[5] My use of the phrase "musical 'being-in-the-world'" follows the example of Jeff Tod Titon in his article "Knowing Fieldwork" in *Shadows in the Field* (Barz & Cooley 2006:63).

ample, undifferentiated Balinese or Nuer" (ibid.:152). Rice's model situates subject-position in the three-dimensional or tripartite context of place, time, and the metaphors that people use to discuss music and musical experience.

In addition to that of Joshua Fineberg, my own perspective becomes a critical element of this analysis, so it is essential to briefly situate my own individual subject-position before moving forward, and lay bare some of my motives and biases in considering this question. As of this writing, I am a twenty-two year old student at Bates College, double-majoring in Music (concentration: cultural musicology) and Japanese, with a general education concentration in Buddhism. I am not an expert in or regular practitioner of Buddhism, nor do I have a background in philosophy beyond my delight in new modalities for understanding my being in the world. Perhaps unsurprisingly to the reader, I consider myself to be part of a subculture of Americans interested in Zen. Thus, I come from the perspective of an American musician, writer, and a lover of art who, like many of the American and Western artists who engage with Zen, is not and would not describe themselves as a Buddhist, but is nonetheless very drawn to and moved by Zen thought. I first became introduced to Zen thought through art—specifically literature—when as a young teenager I discovered the works of the Beats, the anti-establishment iconoclasts like Gary Snyder and Allen Ginsberg and Jack Kerouac that traipsed through the more (ironically) anarchistic tributaries of the river of Zen. The most revelatory moment for my burgeoning Zen-affinity was hearing Goro Yamaguchi's recordings of Zen-related *shakuhachi* (Japanese end-blown flute) "*honkyoku*" music and, soon thereafter, exploring the works of John Cage. I was inspired by artists and musicians like these, with whom I felt a kindred spirit. We were kindred in the sense that we, through whatever odd alchemy of ideologies, found promise of peace and tranquility not

in our own culture, but in the profound—and I must admit, exotic—wisdom of the Buddha. As I matured, I became more and more interested in these subjects from an academic standpoint and took many courses related to Buddhism at Bates College and abroad in Japan under the Associated Kyoto study abroad program, focusing my studies on Zen thought in particular whenever possible.

Meanwhile, in a music theory course during my sophomore year, I was introduced to a collection of essays titled *Music and Consciousness: Philosophical, Psychological, and Cultural Perspectives* (2011), edited by David and Eric Clarke. Two essays in particular from this text stand out to me—I consider them in many ways the impetus of a paradigm shift in my inner life that forever changed my experience of music. The first of these, "Music, Phenomenology, Time Consciousness: Meditations after Husserl" by David Clarke, introduced me to phenomenology, a tradition within continental philosophy which can be greatly summarized as a philosophy of experience (Ihde 1976:25), and its applicability to music analysis. The second, "'In the heard, only the heard…': Music, Consciousness, and Buddhism" by Bethany Lowe, provided an alternative approach to understanding the experience of music through the terms of Buddhism's traditional axioms for the constitution of self, consciousness, and experience. It is Lowe who posed the rhetorical question which I advance here, though with reference to British composer Jonathan Harvey (b. 1939). Citing specific pieces as examples of each level, suggests that "[i]f spiritual/philosophical content can find its way into a piece of music at the content level, the musical level, and/or the deep-constructional level, Harvey uses all three to entertain concepts from Buddhist perspectives with which he himself has deeply engaged" (124). Overall, then, engaging with music through the analytic lens of phenomenology, in confluence with my engagement with

Buddhist thought, fostered within me a change in my modes of perception. It changed how I experience music in many ways, and has deepened not only my appreciation of music listening, my approaches to performance, improvisation, and composition, but has wrought changes which reverberate in my daily life.

2. Methodology

As my methodology for exploring the usage of Buddhist and Zen concepts in WAM, I principally employ three analytical perspectives: Thomas Turino's Peircian ethnomusicological perspective (2014), Rice's three-dimensional model and perspective of *time, place,* and *metaphor* as constituting musical context (2003), and Paulo C. Chagas' theory of "spectral semiotics" (2010; 2014), which is he describes as a phenomenological approach to music analysis. Thomas Turino's adaptation of the semiotic realism of American philosopher, logician, and mathematician Charles Sanders Peirce (1839-1914) becomes an overall scaffolding for my project. The logical foundation of Peirce's thought lets it interface elegantly with the aspects of Rice and Chagas' perspectives. Turino explicates the usefulness and application of this Peircean approach in his 2014 article, "Peircean Thought As Core Theory For A Phenomenological Ethnomusicology." The key element for the applicability of Peirce's thought to ethnomusicological analysis is his theory of signs. Turino provides a definition for Peirce's understanding of a sign as "something that stands for something else (the object of the sign) to a specific perceiver so as to generate an effect . . . in the perceiver at some point along a continuum of focal awareness" (Turino 2014:188). In terms of music, then, the Peircean perspective holds that "(1) every musical sound, performance or dance movement, and contextual feature that affects an ac-

tual perceiver is a sign, and (2) every perceiver is affected by signs in relation to his or her own personal history of experience, which is at once partially unique but largely shared social experience" (ibid.:188). One of the most useful elements of this approach is its flexible, almost universal applicability through Peirce's three ontological categories of Firstness, Secondness, and Thirdness, and (most relevant to music analytical purposes) his most famous semiotic trichotomy of icon, index, and symbol.[6]

For the music theoretical-analytical portion of this thesis, I draw upon the analytical framework of "spectral semiotics" developed Paulo C. Chagas (2010; 2014). As a phenomenological approach to music analysis which interfaces with the relevant fields of composition, acoustics, psychoacoustics, cognitive science, semiotics, and cultural studies (Chagas 2014:45), spectral semiotics provides a framework for exploring the Zen signs of «Recueil . . .» in abstract, symbolic, music-analytical terminology. Moreover, it is a means to understanding the music from my own individual subject-position as an embodied experience in cultural context through its integration of phenomenological and neurological perspectives, and the semiotic scaffolding of Peircean thought. In analysis Turino notes, per the Peircean definition of a sign, an analyst must pay close attention to musical sounds in relation to many parameters—texture, timbre, tempo, volume, and rhythm, to name only a few—"each and any of which may be functioning individually or collectively as signs" (Turino 2014:189). All of these parameters, to varying extents, factor into my analysis. However, I focus specifically on the musical parameters of temporality, form, rhythm, and timbre as potent signifiers of "Zen-ness." These signs of "Zen-ness" are contextually guided by Japanese aesthetic ideals refined during Japan's Muromachi Period

[6] I provide a more in depth account of Turino's interpretation of Peirce's theories in Chapter III §1.

(1336-1573) as part of what is known as Higashiyama Culture—Higashiyama referring to the eastern hills of Kyoto where Yoshidamasa, the eighth Ashikaga shogun built a retreat (Varley/ Kōshiro 1989:207-208.) These ideals, fundamental to artistic creation and connoisseurship during this period, include *wabi,* which can be thought of as "simple, unpretentious beauty; imperfect, irregular beauty; and austere, stark beauty." It is particularly related to the art of *chadō*, or the "Way of Tea" [Varley/Kōshiro 1989:195–199]). Another ideal is directly associated with a form of drama developed during this period is called *yūgen* ("a profound and austere elegance"). The term has a long history in Japan, but as a part of Higashiyama Culture it is especially associated with the work in *Nō* theater under the luminary actors and playwrights, Kan'ami Kiyotsugu and his son Zeami (ibid:208). Another important concept related to this aesthetic is the *yohaku no bi,* "the beauty of empty space" which characterizes the "minimalistic" elements of traditional Japanese arts, including monochromatic calligraphic painting and dry landscape gardens (Weiss 2010:91).

Through my analysis, I suggest that the musical atmosphere, as constituted by Fineberg's sensitivity to, albeit re-imagination of, Zen and Japanese aesthetic concepts, cultivates an *affect* of "Zen-ness." I use the word "affect" in accordance with Gregory Seigworth and Melissa Gregg, who write in the introduction to *The Affect Theory Reader* that " affect arises in the midst of *in-betweenness*: the capacities to act and be acted upon. Affect is an impingement or extrusion of a momentary or sometimes more sustained state of relation, *as well as* the passage (and duration of passage) of forces or intensities" (Thompson and Biddle 2013:6). In other words, the affect that arises in the experience of the world begets action constituted and inextricable from the mediation of the perceiver and their environment. I use the term "Zen-ness" in this thesis order to en-

capsulate a broad spectrum of individual religious experience a person may have when engaging with and attending to objects and signs which that person perceives as having “Zen” semiotic qualities. It is distinguished from other modes of religious experience by its orientation towards spiritual, intellectual, and/or philosophical concepts which, however varied they will be for different interpretants, are associated with Zen Buddhism. These may include, for instance, meditative stillness, other insights wrought from meditative practice, sensitivity to impermanence and temporal processes, and other deep personal and spiritual relationships which a person may have from engaging with Zen.

The traditional arts of Japan and especially those cultivated under Higashiyama Culture such as Zen gardens—which were, according to Fineberg, a major inspiration for «Recueil de pierre et de sable» —were in part meticulously designed and are devoutly maintained to cultivate an affective atmosphere felicitous to the teachings and wisdoms of Buddhism (Itoh 1973; Weiss 2010). In this way, they foster an affect: so that the person strolling through the garden, being acted upon by a curated sensuous atmosphere—that is, an atmosphere constituted by what aesthetics scholar Allen Weiss describes as a “circulation of metaphors,” iconic of the unsayable insights of Zen Buddhism—may be directed towards these insights, and open to other forms of Buddhist self-realization. Based on my understanding of affect and of Japanese and Zen aesthetics, which informs my semiotic reading of «Recueil de pierre et de sable», I suggest that through a deep, contextualized analysis, we may see how «Recueil de pierre et de sable» constitutes and nurtures a Zen affect, which may have the potential to invoke what I describe as partial “Zen experience” or experience of "Zen-ness" to a listener.

The unifying elements of the theories of Rice, Peirce via Turino, and Chagas are their epistemological orientation towards individual subject experiences, their acknowledgement of the immutable influence of a person's being-in-the-world on that person's experience, and their use of formal methods to conceptualize the abstract, non-verbal aspect of perceptual experience in language. However, I stress that I am not suggesting that the relationship between these theories[7] is isomorphic nor absolute—it is neither. So, it is important to clarify here the ways in which these theories diverge, and to clarify how I will use their terms in analysis.

Rice and Chagas draw heavily upon the tradition of 20th century continental philosophy. Their philosophy of experience is based on that of Husserl and his followers and re-interpreters. As such, the Husserlian perspective known as the "epoché"—a rigorous bracketing of preconceived notions about the world, from which phenomenological investigation proceeds—is fundamental to their phenomenology. Under the "transcendental reduction" of the epoché, the apprehension of an object in the world is detached from the conventional opinions and perspectives of common sense, psychology, scientific consensus, and even logic. It is the suggestion that all investigation must begin with the apprehension and description of our exploration of that which is "absolute" and "essentially there" (Moran and Cohen 2012:106-111). Echoing an example from ethnomusicologist Harris Berger, as I sit here writing, my experience of this computer keyboard, the keyboard presents itself as an autonomous, physically real other (Berger 2008:69). Rather than "passively record the keyboard's color and shape by registering sense data," I actively explore the keyboard by variously focusing my intentionality (ibid). I shift my focus by moving and pointing my eyes, by touching the keyboard with my hands, and by tuning my auditory

[7] Neither is this the case between the theories of philosopher Edmund Husserl [1859-1938] and neurologist Francisco Varela [1946-2001] within the approach of spectral semiotics itself.

focus the rhythmic sound produced when I type. The bracketing of ad-hoc hypotheses such as logic under the epoché is useful for approximating objects which present themselves to the senses in and of themselves, such as the keyboard. Philosopher Don Ihde further explains this using a classic example which illustrates a language puzzle in a classroom (Ihde 1976:26-27). A teacher asks if black is a color, and a student replies that it is not; that as an absence rather than presence of wavelengths of light, it does not fit the definition of a color. The teacher then turns to the blackboard and asks the student what color it is. The distinction is between "physical" phenomena given their constitution by and read hermeneutically through a machine, and experience in its primal immediacy. Taken intersubjectively, phenomenological data accrued under the epoché has empirical uses. Ihde remarks that attaining a "phenomenological ability" to relate this sensory data to others' experiences is possible. He compares this "phenomenological ability" to the learnability of argument structure in logic. Extending this idea, a phenomenological approach to listening may become a learned modality for reframing one's consciousness and "intentionality" (the "directedness" or "aboutness" of one's consciousness [Moran and Cohen 2012:167]).

This approach is diametrically opposed to Peirce's epistemological orientation, which posits that logic is (capital "A") Absolute. Peirce operated under the assumption that his logically-derived semiotic realism, constituted by the ontological categories of Firstness, Secondness, and Thirdness, could form the basis of representation, thus a phenomenology of experience.[8] As Turino notes, Peirce's semiotic realism is not just a "typology of signs," but rather can be thought of as a system of tools used for understanding the processes of how we experience and become

[8] I address these ontological categories in greater detail in Chapter III §1.

our individual and social selves through experience in the world (Turino 2014:186) It accounts for how the world—objective reality—may influence how something operates as a sign and how, through the mediation of signs, the external world "may influence our perceptions of and experiences in the world" (ibid.:192). The continental phenomenological perspective, on the other hand, is an approach informed by psychology and earlier European philosophical traditions, especially the thought of Descartes via Husserl. This construes logic as being a "psychologistically" based phenomena (Ransdell 1989).[9] To not belabor the point, however, I suggest that the differences between these approaches are productive differences. As I will make explicitly clear in context, I defer to each epistemological orientation variously. At times, it will be fruitful for my spectral semiotic analysis to consider macro- level descriptive narratives, constituted by passing time: thus, at these points I will apply a continental phenomenological orientation. At other points, especially in the explication of "Zen" signs, I will apply Peircean understanding. Sometimes, "objective reality" may best be contextualized through an experiential, descriptive narrative of experience through the heuristics of phenomenological "intentionality" under the epoché; at other points, "objective reality" is better understood through a Peircian orientation.

Moreover, the concept of "metaphor" is a major touchstone throughout my analysis. However, there is not a consensus definition for "metaphor" between these epistemological orientations. For the twentieth-century thinkers in continental and analytic philosophy such as Black ([1954-55] 1981), Ricoeur (1978), and Lakoff and Johnson (1980), from whom Rice draws his understanding, "metaphor" is a very general term, in so far as they conceive of *all* thought as necessarily metaphoric (Rice 2003:164). This conception of metaphor emphasizes

[9] For readers concerned about further differences between these two epistemological orientations, see Joseph Ransdell's article, "Is Peirce a Phenomenologist?" (1989).

how new meaning is created as an emergent property from the metaphorical association of the "primary subject" (A) and "subsidiary subject" (B), an association which emphasizes and suppresses various details of each subject, while creating new meaning, manifest as *experience* (ibid). Rhetorical metaphors are but one type of metaphoric thought. The implications of this orientation is what leads Rice to posit that any sort of musical analysis, and any verbal communication about music, must be predicated on the truth of at least one highly contextual and variable category of metaphoric comparison (ibid.:165).[10]

In contrast with Rice, Peirce posits a precise definition of metaphor more in line with the traditional, rhetorical understanding of the term. For Peirce, metaphor is the third type of icon "where juxtaposed signs (often words indexically related) assert or suggest an iconicity among the objects of those signs," such as the statement "John is a mountain of a man" (Turino 2014:215). They are broadly iconic, and "often function to create imaginative connections between objects and the juxtaposed signs" (ibid). While the relative vagueness or specificity of epistemological orientations towards metaphor vary, these orientations are linked by the shared function of metaphor in creating new mental associations that are greater than—that is, that are ontologically distinct from—the sum of a relationship between objects. Regardless of semantics, it is this quality of "metaphor" that I seek to emphasize. At some points, my usage of "metaphor" will be more colloquial, and at others, I take care to specify my usage as Peircian and rhetorical, or per this understanding from Black, Ricoeur, and Lakoff as interpreted by Rice.

[10] So for Rice, "music as art" is a metaphor, affirmed through an intersubjective, contextual understanding of "art for art's sake." This allows, for example, communication about the experience of, for example, the "sublimity" and comparative "rightness" of a performance of Beethoven's 5th Symphony.

All of this being said, all of this abstraction, interpretation, and theorization is not per se at home in the realm of Zen. But as Westerners, for our minds are influenced by a host of epistemological and socio-cultural paradigms pointing away from Zen, it is clear that Zen must be understood in more than one dimension, at one time, or at one level. Like Austin remarks of his ambitious review of Zen and neuroscience (1998), my usage of abstract descriptive techniques to explicate Zen means that, levels of analysis will depend on abstract psychological constructs. (Austin 1998 4-5). "Let it be clear," he writes, "that each [abstraction] moves us farther away from Zen and from the simple direct experience of wet raindrops on the face." For Austin, this "deepest truth" of Zen cannot be captured in words: "Insight information, like a cool drink of water, has an impact at levels beyond reasoning" (Austin 1998:11). But of course, this "deepest truth" cannot even be approached by a Westerner without a reorientation of his or her internal context, and not without taking the first step towards this reorientation. Whether one's existential situation is as a 21st century American, or as Muju Ichien, the author of *Shasekishu* himself, Zen is at its core an art of "brain training." A phenomenology of listening experience serves as but one expedient method for inner-looking towards this Zen wisdom.

Ultimately, then, I consider my analysis to be hermeneutical in nature. In other words, it may be considered an interpretive tool, serving the purpose of providing a means by which to experience "Zen-ness" as a listener implicated in the Western paradigms of the contemporary, global digital age. It is obvious then that it will not be a definitive interpretation of how this piece is experienced by any subject, will not necessarily reflect the thought of the composer, and will not reveal any immutable "Zen" essence. Instead, I offer it forward as one of the many ways in which a Zen-influenced piece may be understood in the context of its conception and its recep-

tion. I suggest that Fineberg employs compositional elements on the aural/musical, deep-structural, and experiential levels which are signs of Zen thought and experience, operating differently as signs for different listeners. Though critical elements of both Zen and musical experience may be difficult (or impossible) to communicate via speech, I propose that through what I consider to be the expedient techniques of spectral semiotics and Turino's adaptation Peircean semiotics, contextualized by Rice's three-dimensional model, it is possible to learn modalities which re-contextualize one's experience of the flow of subjective inner life, hearing Zen communicated anew. In the end, I hope that it points towards novel modalities of listening, composition, and analysis which can be productively applied to other works and music theories in ethnomusicology. Perhaps through absorbing the ideas that form the basis of my analysis, a reader may recognize some qualities of "Zen-ness" and better approximate and apprehend the unsayable, transformative and "mystical" elements of Zen experience.

CHAPTER II. Context

1. A Primer on Zen and Music: "Mystical" and "Unsayable"

For the philosopher Ludwig Wittgenstein, the unsayable nature of music affords the listener with a sense of experiencing the world from the exterior and evokes "mystical"[11] transcendence (Chagas 2014:41). As a goal, Buddhism—the Japanese Rinzai school of Zen Buddhism especially—seeks transcendence to an experience of mystical insight that lays beyond words (Park and Kopf 2009:7). Grappling with the trappings and distractions of language has been an element of Zen since its origins in China as *Chán*, which emerged in the early years of and flourished during the Tang dynasty (618-907 CE) (Austin 1998:9). Like Indian Buddhism, Zen stressed the Four Noble Truths: "(1) Life is full of suffering and dissatisfaction. (2) Our passions and other worldly illusions cause these sorrows. (3) The way out of suffering is to extinguish self-centered desires and aversions. (4) There is a sensible, eightfold Path for doing this. It combines right understanding, thought, speech, conduct, vocation, effort, mindfulness, and meditation" (Austin 1998: 8). However, many early Buddhists in China were uncomfortable with the expansive abstractions of Indian Buddhism, which they saw as needlessly obscuring the simple, central thesis of enlightenment. Within Zen, a tale called the Flower Story describes its origins, in which the historical Buddha, Shakyamuni, transmits the wisdom of Zen (*prajna*) in a wordless sermon. He holds up a flower, and it is said that only his disciple Mahākāśyapa understands the transmission, who smiles in affirmation of the communication (Dumoulin 2005:9). Further reflecting this discomfort, it is often recounted that the apocryphal first patriarch of Chan and Zen

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[11] In this thesis, I defer to the definition of "mysticism" proposed by James H. Austin (1998). He defines mysticism in the "most general sense as the ongoing practice of reestablishing, by the deepest insights, one's direct relationship with the ultimate, universal reality principle" (15).

Buddhism, Bodhidharma (5th/6th century CE), symbolically defined *Chán* in the following quatrain:

> 1. A special transmission outside scripture
> 2. Without relying on words and language
> 3. Directly pointing at human mind
> 4. Looking at the nature [of the mind] and attaining Buddhahood" (Park and Kopf 2009, 7)[12]

The symbolic function of this passage is a subversion and transcendence of superficial meanings by using language against itself. In this way, it is an expedient technique which challenges the "fixed identity embedded in a linguistic system and in one's mode of thinking" (ibid). This passage preambles the Rinzai school's characteristic *kōan* practice, which may be understood as the study of "psycholinguistic riddles" known as *kōans* as a means to generate a certain type of spiritual or transcendental experience in a ritualistic or performative context (Stephenson 2005:475-476).[13] In Zen meditation practice, one attempts to balance concentration and awareness in order to collapse the boundaries of the dualistic worldview—of past/future, life/death, self/other, etc.—wrought by human consciousness' imminent, incessant, suffering ego (Jones 2002:3). Ultimately, this practice—indeed, this "brain-training"—points towards what Austin understands to be the central thesis of Zen Buddhism: illumination which emanates from within, not above, that we and the universe are coextensive, and there is Buddha nature in all (Austin

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[12] This symbolic passage is often misunderstood as implying that Zen writ large as a rule neglects scripture. This is not the case. In traditional monastic settings, Zen monks were expected to familiarize themselves with the extensive classics of the Zen canon (Sharf 1995:427).

[13] Stephenson's article proposes an alternative *performative* approach to scholarship on the kōan tradition in an attempt to restructure the longstanding polemic discourse between experience-based and historic, textual-hermeneutic interpretive approaches.

1998:11, 13) This is a notion which, in its rejection of the mind-body duality, takes our interpenetration in the universe absolutely literally. Interestingly, the dissolution of the boundaries between the somatic self and the objects of perception, and other extreme binaries, resonates with the phenomenology of Maurice Merleau-Ponty (1908-1961), whose ideas have been highly influential in ethnomusicology (e.g. Berger 2010), as well as the scientifically oriented, neurophenomenological work of Francisco Varela (Varela & Thompson 1991). Merleau observes beautifully in his *Phenomenology of Perception*: "I am the sky itself as it is drawn together and unified, and as it begins to exist for itself; my consciousness is saturated with this limitless blue" (Park and Kopf 2011:69). Neurologist Francisco Varela, whose ideas are fundamental to the spectral semiotic approach, corroborates this idea with specific regards to Buddhism, writing, "organism and environment enfold into each other and unfold from one another in the fundamental circularity that is life itself" (1991: 220). For all of these thinkers, "enlightenment" is not merely a transcendental, apocryphal state, but a notion that dovetails with certain sciences and philosophical inquiries on their deepest levels.

Buddhist scholar D.T. Suzuki[14] describes the linguistic-subversion approach in Zen as "Zen Verbalism." "Zen is not necessarily against words," he writes, "but it is well aware of the fact that they are always liable to detach themselves from realities and turn into conceptions" ([1959] 2010:7). He posits Zen Verbalism one of two means by which a practitioner may realize *satori,* or enlightenment—the other being *zazen* meditation. Per Suzuki's under-

[14] It is important to note that D.T. Suzuki is a controversial figure for scholars of Zen Buddhism. I explain more about this controversy in Chapter II §3. Much criticism about Suzuki has to do with his abstraction of Zen concepts from their monastic origins. His notion of Zen Verbalism discussed here in some ways mischaracterizes the monastic rigor one traditionally must undertake to become ordained and realize *satori*. Still, given his influence on mainstream American Buddhism, I refer to him occasionally throughout this thesis in places such that it may elucidate why his particular brand Zen thought (which I refer to as "Suzuki Zen," an element of "transcultural Zen" in Chapter II §3) resonates with the WAM composers referred to herein.

standing, the illogical, paradoxical riddles out of which Zen philosophy is born are to be seen an expedient technique to “reach the mind itself, which, as it were, exudes or secretes them as naturally, as inevitably, as the clouds rise from the mountain peaks” (ibid). The words or language are not necessarily the most important thing, but rather, like the secretion of clouds into the sky, is the omnipresent feeling of a “something”—“an unnamable 'X',” says Suzuki. In other words, Zen Verbalism is not entirely abstraction, as the language gives us certain concrete meaning, but (as Suzuki writes) “it is not to be subsumed in the categories of linguistics,” for, as one feebly attempts to too literally grasp the meaning, it disappears. In sum, satori cannot be a verbal implantation brought from the outside, but must rather blossom out of one's inner life (ibid.: 10). The text of *Shassekishu*, from which «Recueil de pierre et de sable» draws its name opens with a quote which seems to resonate with this notion of Zen verbalism. Muju Ichien writes, “Through the wanton sport of wild words and specious phrases, I wish to bring people into the marvelous Way of the Buddha’s teaching; and with unpretentious examples taken from the common ordinary affairs of life I should like to illustrate the profound significance of this splendid doctrine” (Ichien [1283] 1985:71).

Bridging the unsayable to the spiritual, Paulo Chagas references Wittgenstein’s notion that acceptance of the transcendence of logic and language in the process of musical communication leads to a view of music that music—indeed, art in general—has a “mystical mission” to convey unsayable, idealistic paradigms (Chagas 2014:38-41). In the article “On the Circulation of Metaphors in the Zen Garden” (2010), Allen Weiss suggests that in Zen-associated aesthetics, and Japanese aesthetics in general, metaphor exists within a complex circulation of images, “such that iconicity is already in narration” (Weiss 2010:90). Coded within are signs that point

towards Buddhist wisdoms, the opposition of dualistic opposites, the ephemeral, impermanent nature of all things through the passage of time, the "eternity" of "nothingness" (ibid). D.T. Suzuki deduces in his popular volume *Zen and Japanese Culture* ([1959] 2010) that "Zen's habit of mind, to break through all forms of human artificiality and take firm hold of what lies behind them, has helped the Japanese not to forget the soil but to be always friendly with Nature and appreciate her unaffected simplicity" ([1959] 2010:23) While we should be conscientious of the essentializing timbre of this remark, this idea reflects a popularly held notion in both Japan and abroad about the connection between Japanese arts and nature. Writing on the topic of various, often Zen-associated, arts of Japan, Maurice Pinguet elucidates that,

> [their] perfection resides in the fact that an empirical reality (a plum flower, the flight of a bird)[…]signifies that all being is contained within it, indivisible and everywhere equal to itself. Culture will be the development, varied by a thousand sensible figures, of the recognition that nature is deployed in the realm of being. Japanese art is nothing but the sum total of techniques adapted to this operation and conspiring with this evidence. Culture reveals that nature reveals being. (Weiss 2010:90 quoting Pinguet, 1969)

This assessment by Pinguet precisely corresponds Austin's aforementioned thesis of Zen that we and the universe are co-extensive. For the learned interpretant and the connoisseur, by subverting the trappings of language and literalism, Japanese and Zen aesthetics evoke the unsayable experience at the core of Zen through masterful manipulation of the phenomenological experience of their medium—be it sound, sight, space, etc.—to signify and invoke the abstract and the transcendentally mystical. Drawing my understanding from traditional Japanese and Zen-associated aesthetics, the "mystical mission" of Zen-influenced music seems to me to be the task of com-

municating Zen's potentials as a powerful, primordial agency of change through the compositional considerations of sound objects' affect in the world, for the people of that world.

All of this being said, to be sure, my purpose here is not to assert any isomorphisms between the so-called "mystical" experience of art *writ large*, the "short-circuiting" of logic in Zen Verbalism, and the unsayability of musical experience. This is not at all the case. I simply find it fruitful to suggest this realm of contact with the "unsayable" experience of metaphor as a touchstone for exploring Zen's influence in certain strata of Western music culture since high modernity: that is, by engaging in an interplay of signs that invoke new, unsayable meaning through temporal experience, both music and Zen may become mutually bolstering agents of change and cognitive transformation, and may offer mutually illuminating perspectives in music analysis.

Another metaphor: an understanding of the experiential potency of metaphor finds resonance with Peirce's ontological level of Thirdness, which is defined by Turino as involving "the mediation of a First and a Second by a Third so as to generate something new, above and beyond the particulars of the First [object] and Second [sign]" (Turino 2014:190, brackets mine). Because of this quality of signs, in Peirce's phenomenology, Thirds allow for semiotic processes and for the creation of new signs through the existential experience. In tune with the potency of experience to create new potential affects, Austin refers to the neurological concept of *emergent properties* in the context of Zen's work to create new meaning through what we may more comfortably understand from a "Western" cultural perspective as dialectic, metaphor, and paradox. He writes that emergent properties are generated by *interactions* in a system, not any single constituent operator within that system, and so are always greater than the sum of their parts (Austin 1998:19). In the context of the system of the brain, for example, consciousness and therefore all

experience is explained to be an "emergent property," as are all elemental physical interactions nested therein. The synthesis of object and sign in cognitive interpretation is a temporal collusion that creates cognitive changes, of various magnitudes, that are experiential and unsayable, manifest as a novel, necessarily greater whole.

To adumbrate another salient (albeit by no means not absolute) metaphorical resonance between Buddhism, phenomenology, and music, music theorist David Clarke notes that the Husserl's aforementioned, idealistic notion of transcendental reduction under the epoché bears some similarities with the meditative practice of "bare attention" or "naked awareness" in mindfulness meditation. When one practices bare attention, they attempt to at once be aware of sensory experience (e.g. that of a sound object) as it occurs whilst simultaneously refraining from the labeling and judgement of that phenomena. As one final example, Turino uses a metaphor to Buddhism in order to explain a phenomenological experience on the Peircian ontological level of Firstness: the objective world sans the mediation of a sign. Specifically, he refers to the Buddhist state of "no mind." In a phenomenology of Firstness, all thought and perception are suspended and consciousness is separate from the world, existing "in-and-of itself" (Turino 2014:205). Ultimately, Clarke's suggestion is that a phenomenology of listening may, like the practice of bare attention, foster a deep understanding of emptiness which transforms our perception of reality, thus liberating us from the mistaken (per Buddhist thought) reification of the material world, which is not static but always in flux and changing (ibid.:118-119). Turning one's intentionality to the dynamic and flowing polyphony of auditory experience, once-hidden rhythms and harmonies are gradually revealed, observes Don Ihde (1976:85.) Turino echoes this notion from his Peircean perspective, remarking that "[a]fter listening to the same recording many times, one day

I will notice a percussion part or some other feature that had been previously been in the background of my focal awareness, but in that instance is noticed as a fundamental groove to the song" (2014:195). Like meditation practice is a learned skill, so too is phenomenological listening. Indeed, as Ihde succinctly notes, it is "a learning that allows the phenomena to more and more clearly show themselves" (ibid).

To reiterate, in this thesis I argue that even in the West, some musicians have been able to "tune themselves in" to the acoustic and auditory phenomena, the things of the world presented to our senses, that have the potential to signify Zen content through their coherence with Zen aesthetic concepts and spiritual ideas. Hence, per the context of this thesis, to "effectively"[15] engage with Zen concepts in the creation or experience of music is to internalize abstract, nonverbal, and/or experiential Zen teachings about the nature of reality, and, in some way, draw upon the metaphoric iconicity of Zen aesthetics in historical circulation (Weiss 2010). This can be understood as creating an affective atmosphere of "Zen-ness." In this way, in its most effective Western manifestations, I note a potential link between engagement with Zen and its potency as an agent of transformation for both composer and listener. Thus, I suggest that this "tuning in" may be understood from a Western context as an "expedient" practice, where composers utilize the more culturally familiar idiom of WAM, for instance, in order to channel their internalization of Buddhist ideas, the "effectiveness" or "rightness" of which will be related to the intersubjectivity of social life. The sections of my thesis moving forward serve to illuminate this cultural context. I work towards the interrelated goals of (1) vivifying the subject-positions of Fineberg

[15] The notion of "effectiveness" or "rightness" in music and art is obviously contextual, related to the intersubjectivity of social life. In ethnomusicologist Steven Feld's understanding, a listener evaluates the "rightness" of an interpretation in language by relating pieces in terms of metaphor and comparison, in terms of the alike and unalike preferences, informed by the listener's existential context and expectations (1984: 14).

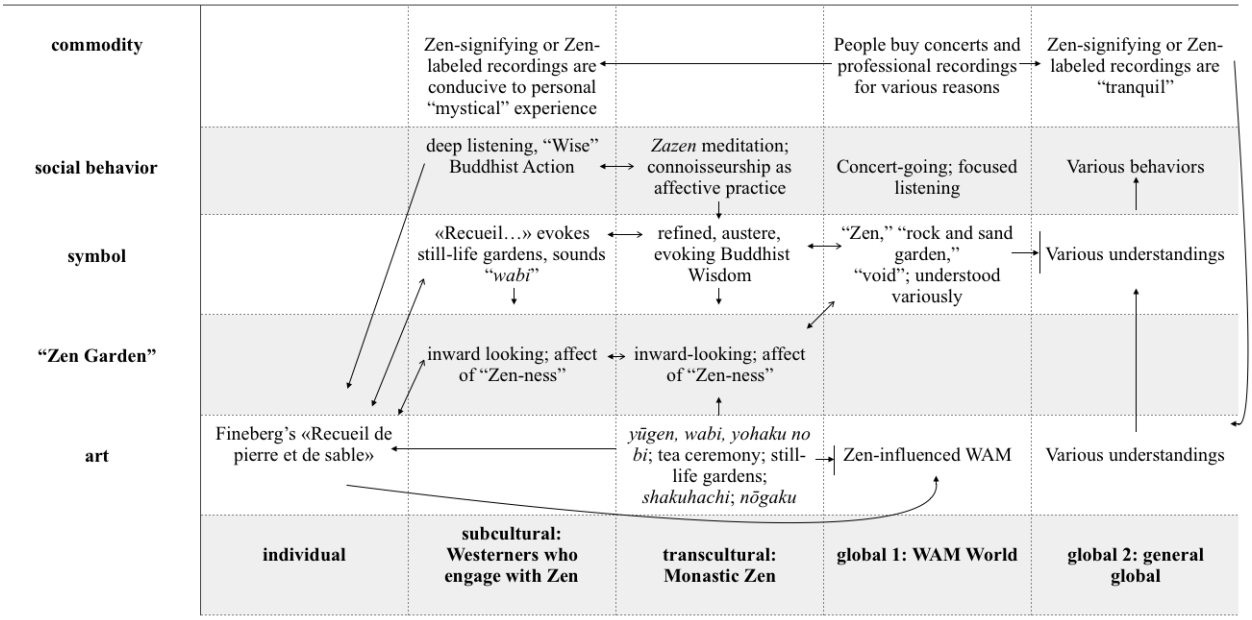
and myself in broader social context and (2) providing readers with a methodological vocabulary and contextual understanding of culturally-situated object-sign interpretations, to provide the possibility of new musical experience through creating a consensus in the context of this thesis for my own semiotic interpretation of «Recueil de pierre et de sable». In the service of providing a better understanding of the "being-in-the-world" of myself, Joshua Fineberg, and objects of ostensibly Zen experience that inform the way signs are connected and what they stand for in musical experience for potential listeners of this piece, my application of Tim Rice's three-dimensional model of musical experience follows next.

2. Rice's Three Dimension Model of Music Experience

Rice's model takes the experiential dimensions of *time* and *place,* classically seen as fundamental to the human experience, in relation to a third dimension of *musical metaphor*, constituted by the metaphors used to relay musical meaning "closer to other domains of human experience" (Rice 2003:158-167). By this, Rice means to suggest that through employing metaphors about music, such as "music is art," or "music is social behavior," or "music as a Zen Garden" (as I do here), the abstract, "unsayable" experience of music can be better understood and communicated. «Recueil de pierre et de sable» as a musical text is immutably bound to this complex existential reality. Per its conceptual basis presented by Joshua Fineberg, it implicates Zen's complex, trans-national history, from its origins in China to its current, global manifestations. Figure 1 shows my application of Rice's model to «Recueil de pierre et de sable».

The Y-axis of this model represents some different, common types of musical metaphor, as well as one original metaphor specific to «Recueil de pierre et de sable», "As a Zen Garden."

Figure 1: Applying «Recueil de pierre et de sable» to Rice's model of musical experience



This metaphor draws on what I interpret to be the affective atmosphere created by Japanese Zen gardens, and is inspired by Fineberg himself, who (as we may recall from the liner notes, mentioned at the beginning) drew on the Zen gardens in and around Kyoto as compositional inspiration. The X axis shows the different spatial, nested nodes, or locales in which this piece may be understood. Arrows represent phenomena of the temporal dimension: single-headed arrows represent movement in time between events or potential interpretive moves (represented by the text); arrows leading to vertical lines represent movement in time with no direct connection between events; double-headed arrows represent what Rice describes as "experiential tension" (2003:169).

As this model illustrates, a may person experiences «Recueil de pierre et de sable» in a telescoping array of spaces, which Rice refers to as "nodes" or "locales." These include *individual*, *subcultural*, *local, transcultural*, *global*, and *virtual* nodes. Some more explanation will help clarify the nature of these nodes. Per Rice's definitions, the "individual" node has a number of

meanings. It is the subject and the subject perspective (ibid). The "subcultural" node "refers to parts of societies, defined socially by gender, class, race, ethnicity, age, occupation, interests, and so on" (ibid). This node refers to no specific physical space, but rather an invisible web of people who share a common language, belief systems, values, and communicate through a variety of networks both physical and virtual. My analysis refers to a subcultural node of "Westerners (esp. Anglophones) who engage with Zen."[16] The "local" node refers to specific places traditionally studied by ethnomusicologists in on-the-ground fieldwork wherein subcultural behaviors are performed, such as a concert hall or home or workplace and so on. The "transcultural" node is my re-interpretation of Rice's proposed *diasporic* node, which refers to populations that share a common origin and sense of connectedness, but are dispersed across the globe (ibid.:162). In general I refer to Zen Buddhism as a transcultural system of beliefs, situated in a lineage with genealogical ties to Japanese Zen Buddhist schools, as proliferated through on-the-ground interactions, scholarly and/or doctrinal literature. Two more nodes complete the spatial axis of this model. I refer to two global nodes, or connections between people "facilitated by commerce, travel, and electronic media among otherwise different people around the world" (ibid). The first of these is what I term the "WAM World," which is global in the sense that people from cultures from all over the globe adhere to elements of the conservative traditions of Western Art Music and produce similar sounding music. Even though Takemitsu Tōru, for instance, is Japanese, he is a part of the "WAM World" global community. On the periphery, there is another, broader

[16] It is important that I point out again that because my sources fall specifically within the English language, I refer especially to Anglophones, who exist a larger, multi-lingual community of individuals in "Western" countries who engage with Zen concepts.

global node of global music markets which include populations beyond those who participate in WAM traditions.

Note that I refer to "Monastic Japanese Zen" as a transcultural node, rather than national (in the sense of it being a tradition from Japan) or local (in the sense that the local socieogeographic nodes of Zen monasteries helped foster the development of Zen aesthetic ideas) because it is my observation that Zen as a religious tradition can no longer be said to be a purely Japanese form of religious practice. It is, however, *distinct* from the "Transcultural Zen" node (which I unpack in the next section). Exemplifying this, the website buddhanet.info, a directory of Buddhist temples and library of Buddhist resources, lists 1,199 results when I search for Mahayana Buddhist temples in America (Zen, we recall, is part of this Mahayana lineage) (buddhanet. Accessed 22 March, 2017). To clarify, the people constituting the previously mentioned subculture of "Westerners who engage in Zen" *may* or *may not* be associated with what I consider to be transcultural Zen, which I observe as having a fundamental genealogical history and as situating the monastery as a center of spiritual life. Some members of this subculture engage with Zen in monastic settings, whereas others engage in various, individual ways with Zen as an "intellectual system,"[17] such as Cage's adaptation of Zen thought as a philosophy for life and for music composition (Larson 2012).

Through time, Zen thought has transcended national borders and has become an important part of the lives of people spread far beyond the Japanese monastery. The *time* dimension of Rice's model acknowledges two understandings of time. He notes two ways to think about time and temporality: as chronological and historical, or as experiential and phenomenological, a no-

[17] D.T. Suzuki, again to some controversy, described Zen as an "intellectual system" rather than a religion or a philosophy (Storhoff and Whalen-Bridge 2010:49).

tion tracing back to Husserl's distinction between "objective" time or time as measured by a clock and the internal conscious experience of time (Rice 2003:162-163). This is a distinction preambles a deeper consideration of the notion of temporality as a critical element of spectral semiotics. For modeling purposes, a chronological and historical understanding of time is fruitful, as it allows for the division of time into periods which may be linked to social, political and ideological shifts that effect music. For instance, I will consider the transmission of Zen ideas into the West, which started in the early 20th century, as related to its effect on social communications and WAM. The phenomenological perspective, then, acknowledges and reinforces the fact that experience of music in the present is inextricably linked to past experience. As Rice affirms with reference to a periodized account by Klaus Wachsmann (1982) of his hearings and rehearings of a Beethoven piece, in the flux of time and intentionality and existential context, each rehearing harbors a novel experience. In reference to philosopher Martin Heidegger ([1927] 1962), Rice summarizes that "[b]ringing experience into periodized histories suggests that time doesn't simply pass in a straight, measured line, but in fact is a fundamental aspect of our being an experience of the world" (ibid). For analytical purposes, my graphical representation of the model (Figure 1) of «Recueil de pierre et de sable» and some of its dimensions of music experience represents a chronological view.

The third dimension of *metaphor* consists of "beliefs about the fundamental nature of music expressed in metaphors in the form 'A is B,' that is, 'music is x'" (Rice 2003:163). I have already touched upon Rice's of metaphor in Chapter I §2. Based on his understanding of metaphor as not a rhetorical device but rather an essential element of thought, Rice suggests that all investigations about music, indeed all verbal communication about music, depends on an in-

tersubjective consensus or agreement on the truth of at least one metaphor for what "x" "music is". Metaphors including "music as art," "music as referential symbol," "music as social behavior," and so on make "fundamental claims about music's nature and significance" (Rice 2003:165). Ultimately, such metaphors about music facilitate communication between people who, in a specific context of time and place, agree, consciously or unconsciously, that some such metaphor is what music "is." Returning to my previous example (from the footnotes), a conversation about the sublime beauty and "rightness" of a performance of Beethoven's 5th symphony between two composers may be a communication that corresponds with the "music as art" metaphor or modality. The metaphors "music as social behavior" and "music as a referential symbol" reflect thought found in the ethnomusicological discipline. The former was developed by ethnomusicologists who demonstrated that because music is made by people in society and understood by people in society, then every performance is a performance of the social structure existent or emergent in that society (ibid). Finally, the metaphor of "music as a commodity" refers to situations where musicians and other people in certain sociogeographic nodes exchange performances and recorded products for money. This metaphor does not figure into my analysis in a major way. However, it helps fill in greater detail the different nodes where this piece may be found and in which it may be interpreted by subjects. Finally, to reiterate, I have proposed my own original metaphor, specific to Fineberg and «Recueil de pierre et de sable»: Music as a "Zen Garden." This metaphor is in a sense constituted by a matrix of "art," "symbol," and "social behavior." I have proposed this metaphor based on my above discussion of Zen-related aesthetics being intimately imbricated with naturalistic, temporal, and otherwise Buddhist symbolism, and having a "Zen" affect which, for the learned interpretant, may invoke Buddhist wisdom and in-

spire positive action. My spectral semiotic analysis of «Recueil de pierre et de sable» is centered around this metaphor.

3. “Transcultural” Zen

In variegated forms, from the superficial to the academic to the spiritual, the term and sign “Zen” has entered the English lexicon. It is often used to refer to its proper historical origins as religious practice over a millennium old centered around monastic life. In this sense, Zen is an rigorous form of ritual spiritual practice which has been transmitted through and refined by a genealogy of wise and learned teachers. However, the most influentially prominent Western conception of Zen—that is, that which has had the most influence on popular culture, the arts, psychology, philosophy, and so on—is sometimes referred to as “Suzuki Zen,” so-dubbed for the seminal influence of Japanese Buddhist scholar of D.T. Suzuki and his role in its transmission. Storhoff and Whalen-Bridge go as far as to suggest that Suzuki is perhaps the single most important figure in the history of the transmission of not only Zen, but any Asian religious tradition to the West. It was largely through Suzuki’s English-language works, such as his three-volume series *Essays in Zen Buddhism,* as well as through his period lecturing at Columbia University from 1951-1957, that prominent intellectuals and artists such as John Cage, British philosopher Alan Watts, Beat-generation man of letters Gary Johnson and others familiarized themselves with Zen (Larson 2012:39, 46-47). For these Americans and many others, Buddhist scholar Carl T. Jackson notes that Suzuki’s word was regarded as the definitive statement of Zen Buddhism (Storhoff et al.: 2010:41).

As we have touched upon previously, per its monastic history, Zen is a school of meditation in the Mahāyāna Buddhist tradition, originating in China as *Chán*. It is characterized by its use of the *kōan* and the enlightenment experience of satori (Dumoulin 1988:xvii). Originally transferred from China through the monk Myōan Eisai, who established the Rinzai sect, Zen flourished in Japan. When Japan opened its national borders at the start of the Meiji period (1868-1912) and began its process of modernization, students and practitioners of Zen in Japan were introduced to ideas from the West, and Zen ideas began to be transmitted abroad through various routes. Largely due to the influence of "Western" thinkers such as philosopher and psychologist William James, during this period, Zen became essentially unyoked from its history as a rigid monastic discipline through the writings of informally trained intellectuals such as Nishitani Keiji, Abe Masao and, the most luminary, D.T. Suzuki (Sharf 1993:43).

There are remarkable differences between these understandings of Zen which are important to unpack here. In the previous section, I identified the node of "Monastic Zen," drawing a distinction between it and "Transcultural Zen." "Monastic Zen" refers specifically to individuals who center their spiritual practice around the monastery, may align themselves with a particular school of Zen, and partake in the rituals of the monastery, including meditation, sutra reciting, as well as quotidian tasks such as cleaning and gardening. In my particular usage "Transcultural Zen," however, refers to a much more general form of Zen—I use it to broadly refer to the sorts of "abstracted" understandings of Zen discussed in this section, especially including "Suzuki Zen." The influences of these such understandings of Zen seem to be inseparable from artists like John Cage, whose work is deeply and directly imbued with Suzukian thought. When I spoke with Fineberg about Zen, I observed that he too treated Zen much more as an "intellectual sys-

tem," as Suzuki controversially refers to it as, than as a monastic practice. For many people who approach Zen Buddhism, the works of Suzuki and others influential anglophone writers like Alan Watts are among the most popularly circulated perspectives.

Buddhist scholars including Robert Sharf and Bernard Faure criticize Suzuki Zen for his sharp break with long-established tradition (Storhoff et al.:2010, 51). Sharf, Faure and others' revisionist criticisms are becoming increasingly dominant in academic Buddhist discourse, and with good reason. A critical point of Sharf's is that Suzuki's Zen became an untrapped, free-floating philosophy that "could be used to lend spiritual legitimacy to a host of contemporary social, philosophical, and political movements, from dadaism to Kyoto philosophy, from new-age hedonism to fascism" (Sharf 1993:43). Although important to note, it is beyond the limits of the space and intention here to engage in any polemics between these camps. I rather simply hope to provide a more holistic understanding of the different ways in which the term "Zen" is used, and to be respectful of the realness and meaningfulness of the various living traditions of Zen as practiced and understood not only by many Westerners and Anglophones, but myriad others across the globe. In this contextualizing section, I hope to account for the semiotic potency and functionings of "Zen" on multiple levels. Towards this, it is important to consider an outline of four of Suzuki's radical departures from monastic Zen traditions in Japan which I draw from Carl T. Jackson's essay, "American Reception of Zen Buddhism" in the collection edited by Storhoff and Whalen-bridge *American Buddhism as a Way of Life* (2010).

Suzuki's teachings reflect a self-conscious redefinition of Zen's essential elements. Jackson observes that many of the radical departures of Suzuki Zen may in various ways appeal to the American needs and sensibilities in the mid-20th century. First off, Jackson notes a bias for

the *Rinzai* school of Zen (which was Suzuki's Zen background) in Suzuki's writings (Jackson 2010:47). As these writings do not always reflect that Zen in Japan includes two other prominent schools of Zen, *Soto* and *Obaku*, Jackson observes that "[t]hanks to Suzuki's influence, Zen for most Americans *was* Rinzai Zen" (2010:48). Whereas Soto Zen emphasizes the intense seated meditation practice of *zazen*, Rinzai emphasized paradox and linguistic subversion through *kōan* practice as a means to attain sudden enlightenment or satori. Secondly, Suzuki emphasized Zen as an inner experience and universality whilst downplaying the importance of rituals and institutions present in Rinzai. Thirdly, Suzuki's Zen allowed for—even *called* for—engagement with the world. Jackson recounts him lambasting the Japanese Zen monastery as inappropriately becoming "a hiding place from the worries of the world" (ibid.:49). Finally, Jackson describes a transition from Zen as a monastic tradition to the Zen experience as a philosophy, in the sense that "'Suzuki Zen' presented the Zen experience as a coherent and all-embracing perspective on reality" (ibid). As for the views he personally expressed, Suzuki maintained that Zen was neither a philosophy nor a religion but rather an "intellectual system" Though Suzuki's writings encapsulate an unmistakable reinterpretation of Zen teachings, Buddhism has historically has been a dynamic and malleable religion, adapting itself to the customs and emotional needs of a culture, Storhoff and Whalen-Bridge note (2010:3). *Chán* would not have arisen at all without the marriage of Indian traditions and Taoist ideals in China (Dumoulin xvii). Perhaps similarly, Japanese Zen Buddhism had to become a form of American Zen Buddhism in order for it to find acceptance (2010:52-53). Suggesting this notion that history will lend legitimacy, Jackson remarks that "[i]n the future, Suzuki's historical reputation will rest less on the 'correctness' of his interpretation of Zen than on his critical role as its transmitter to the West" (ibid). Suzukian Zen may never

supplant the insights wrought from the intensive rigors of the monastery, and indeed represents a dramatic departure from Zen proper. Yet at the same time, it exists with legitimacy as an iconoclastic distributary of the whole transcultural river of Buddhist

Storhoff and Whalen-Bridge suggest that, as a term, "Zen" has entered the popular consciousness of English speakers. Though fewer than one percent of Americans describe themselves as Buddhist, they observe Buddhism as having a profound impact on American culture, especially noting the prominent role it has played not only in the media, celebrity life, and popular film, but also in the realms of literature, art, and psychology (ibid.:1). Quite ironically, the usage of the term "Zen" spreads from brand-esque usage in fashionable New Age fads to a serious and devotional religious expression, manifest on a continuum from cosmetic products, to trendy desktop Zen-gardens, to the various books titled *Zen and the Art of [blank]*, to the aforementioned multitude of Zen monasteries which have emerged in America and Europe throughout the last century, ultimately to the ancient, monastic religious practice itself. Thus, in the sense of the nodes from the *local* to the *national* to the *global*, the sign "Zen" is understood variously.

Though it is difficult to parse the various often ambiguous and contradictory understandings of Buddhism in contemporary American society, Storhoff and Whalen-Bridge consider a unifying element to be a genuine striving to attain a more satisfying "way of life" than those offered within America's own cultural paradigms (2010:2-3). They refer to American Buddhism as a "way of life" in the sense that Zen thought has become manifest in cultural practice. Quoting Piere Hardot, the influential author of *Philosophy as a Way of Life* (1995), they observe American Buddhism as "a way of life, both in its exercise and effort to achieve wisdom, and in its goal, wisdom itself. For real wisdom does not merely cause us to know: it makes us 'be' in a different

way" (2010:2). In support of this idea that many Americans are spiritually dissatisfied and desire a different "way of life," they refer to the U.S. Religious Landscape Survey, a poll conducted in 2008 by the Pew Forum (ibid). This poll reports that 44 percent of Americans surveyed changed their original religious home for other religious tradition, including Buddhism (2010:2).

As someone who would consider himself as part of the subculture of Americans of whom Storhoff and Whalen-Bridge speak, my own experience corroborates this notion. I get the sense that, for perhaps the greatest majority of the public, "Zen" is a best understood as a commodified symbol for something loosely meaning something like "tranquility." It may not be as methodically rigorous as typical religious Buddhist practice, but "tranquility" is still a motion towards psychological transformation. In support of this suggestion, consider this example from what we may consider to be a "virtual" node: the hugely popular video-sharing website, YouTube. A query for "zen relax music" (no quotes) returns approximately 6,190,000 results, many of which are loops of synthesized New Age music and have millions of views. Titles include, "Relaxing Zen Music, Positive Energy Music, Relaxing Music, Slow Music, ✿2840C"; "8 HOURS of Relaxing Music - Meditation, Sleep, Spa, Study, Zen"; 1 HOUR Zen Music for Inner Balance, Stress Relief and Relaxation by Vyanah"; "3 HOURS of Relaxing Music | Zen Garden | Sleep Music for Spa, meditation, Therapy"; Meditation, Zen Music, Relaxation Music, Chakra, Relaxing Music for Stress Relief, Relax"; "3 HOURS Relaxing Music "evening Meditation" Background for Yoga, Massage, Spa"; and pages more of uploads featuring this naming style (youtube.com search, 30 January 2017). Even if this so-called "Zen" is a sign in a way that does not necessarily represent a more historically or philosophically felicitous, deep and repeated en-

gagement with Zen thought, the linguistic phenomena of its use as we see here is not insignificant.

To apply Peircian terminology to this perspective, in the nodal context of the broadest range of English speakers, the sign "Zen" is a "general sign for general objects" (Turino 2014:198). More specifically, the legisign[18] "Zen" does not have the same sign-object relationship in Secondness for this most general group of people, as it would for those in the transcultural node of Monastic Zen, or for the subculture of Westerners who engage with Zen. In some positive relation with a person's previous experience with the legisign "Zen," the semiotic potency of the sign grows in depth and breadth. As an example of the variable semiotic potency of the legisign "Zen," I note experiential tension between the global WAM node and the transcultural Zen node between several musical metaphors. For example, on the "symbolic" level, «Recueil…», per its concert notes, may be understood as a metaphor for elements in a Zen dry landscape garden, such as the bamboo rake used to create designs in the rocks and pebbles of the garden, its boulders, and so on. It also includes sonic objects which may function icons and indexes, such as the orchestral synthesis of the sound of instruments from *gagaku* (ancient Japanese court music). If a hypothetical concert goer, a representative of the global WAM node, heard «Recueil…» after diligently reading its concert notes, words such as "Zen" and "dry landscape garden" and "Japan" may conjure up some vague, equivocal feelings, dependent on the subject-position of the listener. Another hypothetical listener, for instance, may be Buddhist, and these words may function as emotionally potent indexes of past time spent in such locations, or past religious or mystical Buddhist experience. Another listener still may have no sense of the

[18] Words are *legisign*, the Pericean Third of the Trichotomy I. A *legisign* is a general idea, norm, law, or habit. I provide more context on this language in Chapter III §1.

words at all, or otherwise not read them, and the music may signify something entirely else. In this way, there is an experiential tension, as not every hypothetical representative from a specific node will experience the mediation of signs in any predictable or consistent way.

4. Joshua Fineberg and «Recueil de pierre et de sable»

Joshua Fineberg was lecturing the 2016 *June in Buffalo* composition colloquium in Buffalo, NY to a room full of composers and music students, myself included, when I first became familiar with the work which has become my topic here, «Recueil de pierre et de sable». I was awarded a Hoffman Student Research Grant from Bates College to attend this colloquium as an auditor. I worked as an ethnographer, with a specific focus on sensing the pulse of contemporary classical composers and composition, and a vague hope that I may be directed towards a piece—most likely not here, but somewhere—that, per its composer, found influence from Zen or Buddhist thought. Although I had a clear sense of a topic for my thesis at this point—that is, how different WAM composers "embed" Zen concepts (or signifiers) in music, and how, in the unsayable flow of musical experience, these signs could manifest an affect of "Zen"ness—I was at a loss for a composer and piece to focus on. However, when Fineberg described «Recueil de pierre et de sable» through metaphors referencing Zen gardens in Japan, I found myself on the edge of my seat. He spoke, for instance, of the orchestral alchemy he used to capture alive in Western flutes the sounds of the Japanese *ryūteki* flute—even without hearing it, I was somehow certain I had found the right piece. After heading home, I found a recording of «Recueil. . .», and

with the metaphors of its concert notes[19] fresh in mind, I listened to it in its entirety, I realized that chance played out in my favor, and resolved to analyze this work.

After hearing his lecture, I approached Joshua Fineberg as an undergraduate student of ethnomusicology and researcher to try and talk about the thesis that I was beginning to work on. We spoke for a short while, mostly about peripheral things, and we arranged for an interview for the following month through webcam. Leading up to the interview, I listened to the piece many more times, and familiarized myself with the composer behind the work, reading his 2006 book, *Classical Music, Why Bother?: Hearing The World of Contemporary Culture Through a Composer's Ears*. Joshua Fineberg began his musical studies—which include composition, violin, guitar, piano, harpsichord, and conducting—at the age of five (http://joshuafineberg.com. Accessed 2017). He completed his undergraduate studies at Peabody Conservatory before moving to Paris and studying with the influential French composer Tristan Murail. During his studies with Murail, he also worked as a free-lance composer in Europe and as a consultant researcher at IRCAM[20] in Paris for several years. He returned to America in 1997 to pursue a doctorate in music composition at Columbia University, which he completed in 1999.

Like Murail, who is considered to be one of the progenitors associated with the style, Fineberg's music is often described (by himself and by others) as "spectral music," although he

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[19]These notes read in full: "«Recueil de pierre et de sable» is named after a book written by the 13th century Zen monk Muju Ichien and takes its inspiration from the rock and sand gardens in and near Kyoto, Japan. The two harps (which together form a sort of super-harp with micro- intervallic capacities) act on the sustained sounds of the ensemble like a rake on the sand. As with the rake and sand, the successive interventions of the harp progressively create ever larger, and more intricate designs - shaping the architecture of the piece. The discontinuous, non-symmetrical elements of the gardens (often expressed with collections of large boulders) are also used as a source of inspiration; isolated elements, exhibiting no apparent relation to the rest of the musical material, are used to set-off and orient the perception of the larger form." (http://joshuafineberg.com. Accessed 2017)

[20] *Institut de Recherche et Coordination Acoustique/Musique,* in French, or alternatively the Institute for Research and Coordination in Acoustics/Music, in English.

observes that some composers prefer to reject the label (Fineberg 2006:112). “Spectral music” has a range of definitions, but a central belief of so-called “spectral” composers is that music is ultimately sound evolving in time (ibid). According to Fineberg, spectral music often constitutes a rejection of the syntax imposed by tonal harmony, and instead draws on fields like acoustics and psychoacoustics in order to create powerful new compositional tools that defy old western classical paradigms. He writes, “[s]pectral composers have sought to create a music that was built to function (by function, I mean to create specific, *compositionally controlled* auditory impressions in the listener’s subjective awareness), instead of a music that functions in spite of how it was built” (Fineberg 2006:110)

For Fineberg as an individual, the spectral approach seems to reflect a deeply intentional approach to creating musical experience. It represents a deeply-felt aesthetic and philosophical drive to push the limits of how the mind and body can be made to feel through sonic experience. In our interview, Fineberg discussed a little bit about his sense of his own approach to composition: “I guess, back at the time that I wrote «Recueil . . . », I would have said that the work is ‘sound changing in time,’ and the way that the human auditory system interacts with those sounds as they change in time.” This statement echoes a general definition of “spectral music” that he provides in his book (Interview. 29 July 2016). Fineberg went on to say, “now I might say that the work is really what that sound in time, as processed by the human auditory system, does to you. So, in a certain sense, what happens to the listener as they experience and interact with sounds—to me, that is what the piece is.” This latter description was especially exciting to me because of my plan to take a phenomenological approach to music analysis. Curious about this

emphasis on experience, I asked Fineberg about his engagement with phenomenology. "I definitely think about phenomenology nearly all the time when I'm working," he said. He went on,

> I think, in a certain sense, for me, what composition is, is a phenomenological manipulation of a listener[…]I think a lot of the reasons that I am drawn to phenomenology is that I think it is honest about things that we tend to mystify.[21]

Fineberg is indeed a very philosophically oriented person. The ideas that he engage with, including philosophy, literature, phenomenology, psychoacoustics, aesthetics and even economics are imbricated in his approach to composition. His lectures and workshops at *June in Buffalo* were among the few that veered far into the conceptual and intentional approach to a work of art. He pushed students to think beyond their composition with a much wider lens than simply focusing on an their works in the abstract and as an act of self or conceptual expression. Having purpose in one's craft seems to be a core value of his. With reference to the fact that most contemporary classical music relies heavily on subsidies and patronage and not ticket sales, for instance—and moreover, in a market of mass-culture that, according to Fineberg, seems to have a wholesale distaste for e.g. contemporary classical music—he challenged a room of young composers to ask themselves, why exactly they are composing, and why do they think that it is worth it?[22] The point was not, I don't think, to challenge the validity of students' works, nor to misdirect their attention from the music at hand, but rather to consider our complex existential reality, which must somehow contingently inform their work, and in light of that, to answer in

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[21] This felicitous coincidence, as it happens, lends itself elegantly with my adoption of Chagas' spectral semiotic approach to analysis. However, it is important that I stress that so-called "spectral music" has no direct relationship with, or influence on, neither the compositions nor theories of Chagas as presented in his 2010 and 2014 essays. In his 2014 explication of the theory, for example, Chagas analyzes a Chopin *étude.*

[22] Fineberg discussed these issues both at *June in Buffalo* as well as in his book. In *Classical Music, Why Bother*, he refers specifically to the economic non-viability of classical music in the context of a discussion on aesthetics. He references works such as William Baumol and William Bowen's report *Performing Arts: The Economic Dilemma* (1966).

the positive. As Fineberg asks in his book: “If I want to maintain that the arts require the existence of another sort of value that is intrinsic to the works — and if I am not advocating a full-scale return to a hierarchical worldview where it is closeness to God or the word of a prince that conveys this value — where does this value come from? How can we justify the value of one work over another without succumbing to the pitfalls of objectivist aesthetics that (as Jean Galard reminds us) are bound to fail in time?” (Fineberg 2006: 14).

Fineberg believes that beauty and aesthetic value exist abstractly, even if there may be no such thing as an ultimate and universal theory of aesthetic value in art (which he indeed does not propose to exist) (ibid.:14-17). He offers the theory that this is perhaps because they are inevitable results of the conditions and parameters of human biology and cognition. He suspects that there is some sort of intrinsic—albeit by no means universal—metaphorical “organ” for this. In sum—and highly aware that many people are not content with this answer, he notes (ibid.:18)—he feels that there is some unprovable set of intrinsic values that characterize the potency of aesthetics for human beings; and that the enduring aesthetic value of “art”—which Fineberg distinguishes from “entertainment”—is deeply imbricated with human cognition. He writes, “Art is not about giving people what they want. It’s about giving them something *they don’t know they want*. It’s about submitting to someone else’s vision; forcing your aesthetic sense to assimilate the output of someone elses” (ibid.:21). For him, at least, it is about a deep, intentional engagement, the honing of his *craft*, in order to communicate novel sublimity or beauty and create an affect in human beings.

In my interview with Joshua Fineberg, I was able to glean a clearer understanding of the context of the creation of «Recueil de pierre et de sable». This piece was completed in 1998, sit-

uating it during his period of graduate study at Columbia. It was commissioned by Radio France for the Présence Festival in 1998, and is orchestrated for two harps tuned a quarter tone apart, two flutes, clarinet, violin, viola, and cello (http://joshuafineberg.com. Accessed 2017). In our discussion, it became clear that his attention to craft is clearly manifest in how he describes this work. This attention reflected a meticulous and highly intentional approach to creating musical experience and affect. He wanted to find a context for a composition where process oriented, general concepts and really specific concepts could come together. (Reehl. Interview 29 July 2016). He also wanted to respond to a frustration that he was feeling with regards to the music that we was making before. Specifically, he recounted, "I was frustrated with the sort of lack of specificity of memory that comes from [focusing on masses and harmonies and 'the global statistical' side of the way we flow through a piece of music]. I like the power of the experience moment to moment, but I find that it's like sand flowing through your hand—it's really hard to hold on to." Because of this, he said, the metaphor with Zen gardens was a "sort of philosophically perfect example" to this feeling he described. He spoke more on this metaphor, noting that in his concept of the Zen garden, "it's very specifically about the marriages of these found objects and whatever philosophical term you want to use for the ocean, the world, or the heavens[23]—the way the sand becomes sort of a continuum of process that's punctuated by these very specific things —so it seemed like an ideal metaphor to me."

Through metaphors based on sound as elements of the Zen garden, I am reminded of a term used in Japanese gardening: *shakkei,* to "capture alive" a landscape. This term literally means "borrowed landscape," but Japanese garden expert Itoh Teiji stresses the poetic meaning

[23] Sand gardens are also often said by Buddhists and scholars (e.g. Weiss) to be symbolic of the void and of eternity.

evoked by the translation, "*to capture a landscape alive*," which emphasizes a sensitivity to the ephemera of nature that he sees as essential to gardening techniques (Itoh 1973: 15). In a sense, I think that Fineberg worked to "capture alive" in *sound* the Zen garden. His approach to craft does not lead him to produce a *conceptual* Zen garden, but rather one which *functions* sonically. It is not a grafting of musical ideas onto a geometric abstraction of the garden, for instance, but, as he says, a "continuum of process" that may (however importantly) proceed from metaphor but also exploits the phenomenological potential of the medium of his craft: that is, rather than the medium of progression through space in time, as primarily characterizes the experience of a Zen garden, Fineberg's medium is sound evolving in time, as primarily characterizes the experience of music. Per his metaphors, the two harps combine together and "create a sort of microtonal super harp that can play parts one harp is not capable of performing" (Fineberg 2006:121). He goes on, "[t]he other six instruments create something like a sounding board for the two harps." He discusses how an analogy to Zen gardens, which we saw first in the liner notes, was a major inspiration for the piece. He specifically refers to the raking of the sand.

> I was drawn to the idea of successive passages of the rakes being like successive percussive attacks that leave an ever richer pattern on the sand or in the ensemble. All of this leads up to the point where the raking, or the playing of new attacks, becomes less important and interesting than the design that has been created. (ibid)

Moreover, per the context of this metaphor, he draws on iconic musical arts from Japan and places them within this continuum of process. At *June in Buffalo*, he brought up «Recueil de pierre et de sable» in order to show us an example of how he uses spectral techniques of sound modeling in order to model a Japanese flute called a *ryūteki* using two modern western flutes. This instrument is particularly important in Japanese *gagaku* court music. He describes the

ryūteki as "basically a tube (like all flutes) made of smoked bamboo, but [with] a small lead tube with a different diameter between its head joint and body" (ibid.: 121-122). He explains that this is "because the oscillating air (called 'standing waves') in the two tubes with different diameters and lengths interfere and interacts with each other." By indicating the flutists to subtly shift pitch, Fineberg is able remarkably mimic this sound using Western flutes and piccolos. In addition to the *ryūteki*, Fineberg used this small ensemble to iconically mimic the sound of a Japanese mouth organ called a *shō.* Linking these auditory symbols back to the metaphor of the Zen garden, he likens the autonomous instances of the *shō* texture "as somewhat akin to the boulders encrusted in the sand/ocean of a Zen garden" (ibid).

These considerations reflect Fineberg's dedication to craft in the hopes of creating a powerful artistic and aesthetic experience. Moreover, they represent a deep and intentional engagement with Zen ideas. He recounted in our interview, "I've always been [at least] vaguely interested in Zen. There were times when I was more serious about it, and times where I have been less serious about it" (Interview 29 July 2016). He said that today, he is actually more serious about Zen in some ways than he was back during the time that he was composing «Recueil de pierre et de sable»—he now has an *ensō*[24] tattooed on his chest. Following his interest in Zen, I was curious about his thoughts on other composers who reference Zen ideas, and mentioned Cage and his aleatory composition approach in particular. Fineberg's response reflects a conscientiousness of the importance of determinacy and form (in tension with the aleatory) in cultivating affect by Japanese and Zen related traditional arts (Weiss 2010). "Actually, that's one of the things that has always bothered me [with regards to] Cage," he said. He went on,

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[24] The *ensō* calligraphic circle (variously) representative of e.g. enlightenment, "nothingness," and characteristic of traditional Japanese minimalism in art.

> One of the things about Zen—maybe it's my misperception, but…—the monks were not using random processes to design their gardens and monasteries. Their gardens and monasteries were very carefully designed in order to put people in the 'right states.' This idea that, somehow, Zen is about randomness . . . Zen is about accepting the idea that there is an enormous number of things in the world that you can't control, and shouldn't try to control, but it's not about throwing dice to make choices that you could control. It is about accepting about how little control and seeing that face on.

His interpretation is, as far as I am aware, and as scholars of the Zen garden like Itoh and Weiss suggest, well-grounded. In his own work, he pays scrupulous attention to structure and design in order to create experience; and in «Recueil de pierre et de sable» in particular, (at least) I hear a complex, vivified and multilayered tapestry of Zen concepts and signifiers that foster an affect of "Zen-ness".

CHAPTER III. Theoretical Basis for my Analysis of «Recueil de pierre et de sable»

In this chapter, I write in some detail regarding the theoretical scaffolding of Turino's adaptation of Peircian semiotics, and Chagas' spectral semiotics. Although these theories are very useful for musical analysis, they demand a certain grasp on their parlance and contextual background in order to be effectively used. Acquiring an understanding of this language is admittedly arduous—many have no desire to analyze musical experience on such a deconstructed, moment-to-moment basis—Turino himself observes as much (ibid.:213). But like Turino, I see the value in this sort of experience-focused orientation. As I have discussed earlier, if a new "way-to-be" and an attainment of necessarily experiential, non-verbal wisdom is a core goal of Buddhism, then the phenomenological and semiotic thought explicated here may provide a surprisingly illuminating perspective if it is learned. Following this chapter on analytical methodology, I proceed with my analysis-proper of «Recueil de pierre et de sable».

1. Peircian Ontological Categories

As I mentioned in the methodology section of the opening, the Peircean perspective proposes three ontological categories known as "Firstness," "Secondness," and "Thirdness." "Firstness" refers to "objective reality" — that is, an entity in-and-of-itself, without related to a second (ibid.:190) Its typical characterization is as a quality of feeling, and has inherent a vagueness, or "some"-ness until actualization. It is the world "out there," preceding our perception. In Peirce's theory of signs, logically, "Firstness" is only a potential sign, and so cannot be recognized as such until it is brought into relation with a Second (ibid.:190). Considering Firstness as a falling

raindrop, the raindrop only "exists" as a vague potential, in so far as it may potentially come in contact with a perceiver, an interpretant. "Secondness," then, is that resultant of direct contact with a First, without the mediation of a Third. It is the immediate, visceral apprehension of a cool drop on the skin. Peirce emphasized that Secondness is the realm of actuality and "real relations" (ibid). When *some* raindrop comes in contact with the skin, it becomes *this* raindrop. Turino describes the relationship between Firstness and Secondness as "brute force," "cause and effect," or "contiguity" (ibid). "Thirdness" is mediation, synthesis, representation: it is the mediation of a First and Second sign-object in to produce a new affect "above and beyond the particulars of the First and Second" in a perceiver or interpretant. To illustrate how these ontological categories are manifest in experience, consider strolling outside and feeling a drop of rain before a downpour. In this instance, the drop of rain is, again, Firstness. The experience of feeling the cool drop of rain on your face is Secondness. Following this immediate, "brute-force" experience, in the category of "Thirdness" certain interpretive thoughts may arise, such as the desire to find shelter, or wondering if the windows are closed, or if the laundry has been taken in. This reaction as a habit or as a necessity is the generality of Thirdness, in contrast to the vagueness of Firstness and discreteness of Secondness.

Peirce's basic sign concepts are further divided into three trichotomies, one trichotomy per ontological level, as shown in Figure 2 (ibid.:191-192) (Peirce 1903). The characterization of each of these trichotomies correspond with characteristic elements of each of the ontological categories. Trichotomy I is comprised of "qualisign," "sinsign," and "legisign," is considered to be the sign in and of itself. Because it is the sign in and of itself, Trichotomy I is a relative First, constituting only potentials until interpreted. A qualisign is the first sign of Trichotomy I. Turino

defines qualisign as "the quality that makes something fit to operate as a sign" (ibid.:215). Qualisigns are considered a "genuine" First, because they "do not function semiotically until they are realized in a sinsign" (ibid). A sinsign—the second of Trichotomy I— is defined by Peirce as "any specific instance (token) of sign experienced in actuality," and additionally, "[s]insigns are related to and informed by one or more legisigns" (ibid.:216). Legisigns, then, are the third sign type, completing Trichotomy I. I quote Turino's concise definition and exemplification: "A legisign is a sign as a general type. All the instances (sinsigns) of the word 'cat' on a printed page, for example, are informed by the word 'cat' as a general sign (a symbolic legisign)" (ibid.:215). To use my own example, «Recueil de pierre et de sable» "as a piece apart from any instance of performance or particular score or recording, is a legisign" (ibid.:215). The legisign informs the meaning of all instances of a sign. Legisigns operate nested in related levels of specificity, so any particular performance or recording of «Recueil. . . » has potential legisigns of, for example, as "«Recueil. . . » as a piece apart from any particular performance," "Zen-inspired music," "contemporary classical music," "Western Art Music," "music," and so on.

Figure 2. Table of Peircean Trichotomies. (Every sign is…)

	1.		2.		3.
I.	Qualisign	*or*	Sinsign	*or*	Legisign
and					
II.	Icon	*or*	Index	*or*	Symbol
and					
III	Rheme	*or*	Dicisign	*or*	Argument

Trichotomy II is described by Turino as the most relevant to musical analysis. It is "of the relationship between sign and object" and so a Second (ibid). Because of its relevance to musical experience, it deserves our careful consideration. It is comprised of "icon," "index," and "symbol." Peirce defined the icon as the "connection of sign and object through resemblance" (ibid.: 214). Icons are considered relative Firsts "because the qualities (qualisigns) that form the basis of

resemblance are inherent in the signs and objects themselves" (ibid.:192), and they form the basis of all token-type relationships. Though that which forms the basis of resemblance are inherent in the form of the signs and objects, however, the unique situation of a person and their being-in-the-world socializes that person to hone in on certain characteristics of a given object, phenomena or experience, and ignore others. Iconic processes are further divided into the three subcategories, which Turino interprets as 1) the initial connection of tokens and types; 2) indexical relation (token as part of type as a whole); and 3) Turino's notion of the "inkblot function," where imaginative leaps are made by perceivers of forms where iconicities are not obvious (such as in inkblot tests). Turino compares token-type relationship to what ethnomusicologist Steven Feld (1984) referred to as the "interpretive move" one makes upon encountering a new piece of music, when they "mentally search for a genre or type to which it belongs: 'sounds like'" (ibid.: 193). Iconic signs can also be used purposefully by artists in order to draw their the unsayable images from imagination into world by proposing to listeners new ways to imaginatively experience a phenomena (Turino 2008:8). Following this, he bases his proposal of the "inkblot function" on the principles that: "(1) all signs operate in relation to the personal histories of experience, or the internal contexts, of perceivers, and (2) it is also based on the automatic human propensity to make token-type connections." Moreover, iconic processes include basic recognitions of patterns and forms in phenomena (Turino 2008:7). As such, perception of the "shape" of a composition, or of individual phrases and sections as one experiences that composition, is an iconic process. Finally, because icons are relative Firsts of Trichotomy II, although they are imaginative and in that sense can be "learned," any instance of iconic processes takes place basically instantly—that is, unconsciously—for an interpretant.

Peirce's definition for Index, the second of Trichotomy II, as the "connection of sign and object through co-occurrence" (ibid.:214). When a perceiver (often repeatedly) experiences a specific sign and object together, their connection becomes "simply true or a fact" for that perceiver (ibid.:195). Indexes have a number of notable implications with regards to emotion, affect, and the nature of their relationship to the facticity of the objective world. As the second of Trichotomy II, these signs are the singularity and immediacy of the "brute force" relation that characterizes Secondness, thus "the most direct, actual, reality-saturated sign type" (ibid). Because of their directness, indexical signs are considered by Turino to be paramount in creating emotional affects, the potency of which "is in direct proportion to the emotional potency of what the sign [stands] for" (ibid). Despite the potency of the index, the content of the sign-object relationship is based entirely on an individual's experience with that specific sign and object together. It is highly reliant on internal context. This has a number of important implications for my analysis, and in many ways informs my subject-centered approach. For example, my hearing of «Recueil . . .» is informed by my relatively plentiful (at least as compared to the general population) scholastic and casual experience with Zen Buddhist thought, historical context, iconography, and art. This forms in my mind what Turino describes as an "indexical cluster," in which indexical associations between a sign and other signs are strong enough such as to have become habitually connected as a cluster (ibid.:214). Certain indexical cues, such as the concert notes for the piece mentioning rock and sand gardens in and around Kyoto (where I have spent a deal of time) create a mental framework or "frame" which primes me to potentially tune in to "Zen-ness." In my listening, my tuning-in is affirmed by the signs of the sustained sounds of the ensemble, which the concert notes of «Recueil . . .» suggest to be sand. Though my analysis will not speak for the

experience of anyone but myself, my in-depth consideration of the procession of signs in «Recueil . . .» shows from at least my own perspective how "Zen" indexes and other signs can have a notable experiential impact on listening and harbor notably affective potency.

The Symbol is the third of the Second Trichotomy. Because of the semantics of the word "symbol." Turino proposes a new explanation which he terms the P-Symbol. I adopt this terminology as well. As the third of Trichotomy II, P-symbols are used to create new sign-object relationships, which extend beyond (but include) relationships of resemblance (which Turino notes is "the Firstness of icons") or co-co-occurrence ("the Secondness of indices) (ibid.:197-98). I will not belabor the point here, but much of the potential usefulness of this thesis is based on the linguistic capacity of P-symbols to create or learn new sign-object relationships. Through creating a consensus between perceivers for a specific sign-object relationship, new semiotic experiences become tenable, at least in the context of a specific interaction: in other words, through the intervention of language, musical sounds may function as P-symbols (ibid.:198-199). Fineberg's suggestion that the detuned harps (the object) act "like a rake on sand" is, for a general perceiver, a P-symbol that may lead, through the repeated procession of signification, become an icon and ink-blot function, where the sound of the harp is imaginatively heard as produced by rake, a sign which may cascade, suggesting its own imaginary landscape, fecund with metaphor, like the Zen garden. This example is an over-simplification, to be sure, but shall suffice until I have begun my analysis proper.

Finally, we arrive at Trichotomy III. Comprised of "rheme, dicent, argument," Trichotomy III is a Third, and so involves the way that the sign-object relationship is interpreted to create an effect. Rheme, the first of Trichotomy III, is defined by Peirce as "a sign interpreted as a pos-

sibility rather than as a causal actuality" (ibid.:215). Dicent, the second of Trichotomy III, is "a sign that is interpreted as actually being affected by its object" (bid:213). Turino's examples of a dicent sign include instances where bodily gestures are interpreted as being directly influenced by an inner mood, as well as the interpretation that a weathervane is pointing in the direction that the wind is blowing. The third concept of this trichotomy, Argument, involves how signs are to be interpreted (ibid.: 213). It is the "systematic ordering of propositions, based on premises, to make a point" (ibid).

2. Spectral Semiotics

My music-theoretical/semiotic analysis takes place under the operational framework of spectral semiotics, a method of phenomenological reflection on sound and music developed by composer and scholar Paulo C. Chagas (2010). Chagas' own definition of this method is originally presented in his 2010 article "Spectral Semiotics: Sound as Enacted Experience." He writes,

> *Spectral semiotics* is a broad field of semiotic studies in which a phenomenological approach is made to sound in music. It investigates different types of experiences related to sound and music, ranging from consciousness (perception, thought, memory, imagination, emotion, affect, embodied action, etc.) to meaningful social and cultural interactions in which sound and music play a significant role. (117)

The phenomenological approach of spectral semiotics resonates with the ethnomusicological perspective that any act of musicking is inextricably linked with the body and its cultural context. The theories used provide a language by which to interpret phenomena of the world in terms of abstract perceptual immediacy as well as existential facticity.

Spectral semiotics employs the concept of *spectrum* (described by Chagas as "an existential metaphor of sound and music in the digital era" [2014:43][25]) as a tool for music analysis. A spectrum represents sound energy as a function of frequency and may be produced through the conversion of acoustic vibrations into digital signals through the digital signal processing algorithm called *Discrete Fourier Transformation* (DFT) (ibid). DFT may process acoustic signals in either the time domain (represented as a waveform) or the frequency domain (represented as a spectrogram). These two representations provide complimentary perspectives by which to visualize and analyze how a sound evolves in time. Figure 3 shows the waveform (top) and spectrogram (bottom) of the first eight measures of the CD recording of Joshua Fineberg's «Recueil de pierre et de sable» (Fineberg 2008).[26] Per the stereo soundscape of the recording, the left stereo channel is displayed above the right stereo channel for both the waveform and the spectrogram.

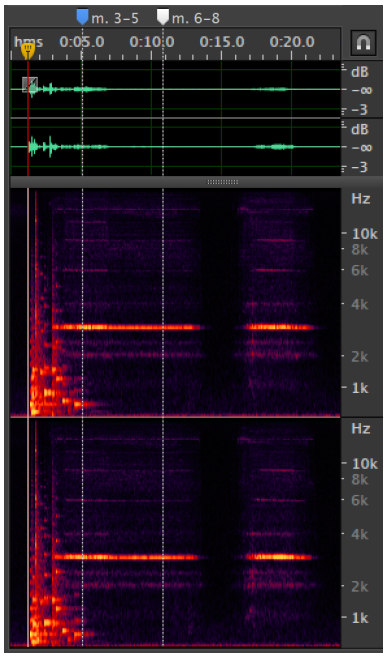

Figure 3: Waveform & spectrogram of mm. 1-8 of «Recueil de pierre et de sable»

The horizontal axis of the waveform represents time and its vertical axis represents amplitude in terms of decibels. The spectrogram displays three dimensions of acoustic parameters.

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[25] In defining *spectrum* as such, Chagas nods towards the important phenomenological distinction between phenomena as experienced and phenomena as modeled. This is the notion that the experience of hearing, for instance, a note plucked on a harp in front of you is an intrinsically and essentially different thing than to understand the note as modeled by digital graphics. We may also recall Ihde's example of a teacher asking the classroom the color of the a blackboard from the Methodology section of Chapter 1.

[26] I specifically use a performance by Catherine Bowie and the Ensemble Court Circuit included on a CD released in 2008 by Decca which includes other compositions by fineberg e.g. "Steamlines," "Tremors," and "A Ripple-Ringed Pool." I use the program Adobe Audition to show the sonogram of this recording.

Paralleling the waveform, the horizontal axis represents time. The vertical axis represents frequency, and the intensity of the color corresponds to the spectrogram's third dimension of amplitude (Chagas 2014:44). The waveform and the spectrogram parallel each other temporally, and when compared illuminate different features of the micro-structure of an acoustic signal as it evolves through time. For example, the waveform from mm. 1-3 shows the rhythm produced by the stark, penetrating and sharp attacks of the detuned harp. The spectrogram from mm. 1-8 models how the sound of the two piccolo flutes emerges as a steady linear gesture from a relatively more dense spectrum of frequencies, finds isolated solidarity, then rings off to complete silence. Furthermore, DFT affords the opportunity to view a sound at different scales of time, thus allowing for different formal distinctions in analysis (ibid). During my analysis proper, I will consider both the micro- and macro- scale sonic events which give this piece its form and, perhaps, communicate Zen affect.

The usage of DFT as an existential model for sound in the digital age facilitates a *temporal* approach to music analysis by allowing us to investigate the "physical" components of the sound at different timescales. A key element of the unique and deep analytical potential of spectral semiotics is its incorporation of phenomenological notions of temporality, which offer a metaphorical language that brings these abstract temporal elements into more universal terms of human experience. Phenomenological understandings of temporality have been employed in other ethnomusicological theories and also in musical analysis. As an example of an ethnomusicologist using phenomenology in a specifically Zen Buddhist context, Paul Humphreys employed such ideas in his hermeneutical interpretation of the "accelerating roll" (also known as the "Asian acceleration") in formal Zen Buddhist practice as reinforcing Buddhist teachings

(Humphreys 2004). As I mentioned in my introduction, music theorist David Clarke, on the other hand, used phenomenology's temporal theories as the basis of an analysis of Mozart's *Eine kleine Nachtmusik* (Clarke 2011). To adumbrate a salient point of contact with Zen thought here, Weiss identifies a tempered consideration of temporality as an essential element of Japanese and Zen aesthetic sensibilities to (2010:90). He cites the tea room, a locale intimately related to the gnosis of Zen aesthetic sensibility, as "a stage where a hyperbolic aestheticisation of objects takes place in a highly condensed utopian space and a hyperacute consciousness of time," where "the effects on connoisssureship are both aesthetic and epistemological" (ibid). Exploration of how exactly this such an aesthetic and epistemological effect is constituted in my hearing of «Recueil de pierre et de sable» is a critical theme of my analysis.

The spectral semiotic approach encapsulates the two main discursive trends of phenomenology: the seminal "transcendental phenomenology" of aforementioned Edmund Husserl, and the reactionary existential phenomenologies of Martin Heidegger (1889-1976), Maurice Merleau-Ponty (1908-1961) and others (Chagas 2010). To reiterate, by offering a rigorous method for examining experience, the phenomenologies of these thinkers and others have been influential to ethnomusicologists and music analysts. Though other elements of phenomenological thought will be utilized in my analysis, the starting point of its applicability to music analysis involves Husserl's concepts of "epoché" (touched upon briefly in my introduction), "intentionality" (the directing of consciousness towards an object), and various re-interpretations of Husser's concept of temporality, which is sometimes referred to as "Husserlian time-consciousness" (Berger 2010:68-69)(Clarke 2011). With regards to the herein privileged parameter of temporality, spectral semiotics specifically references Husserl's thought on temporality

presented in his *On the Phenomenology of the Consciousness of Internal Time* (1892–1917) (Husserl 1990) and Francisco Varela's neurobiologically informed revision of Husserlian time consciousness described in his article *The Specious Present: Neurophenomenology of Time Consciousness* (Varela 1999)(Chagas 2010:118).

Husserlian phenomenological inquiry begins with the notion of epoché, which we may recall can be thought of as sort of bracketing of factors, such as logic, scientific models, and intersubjective consensus, which are not immediately or corporeally present within the context of an experience. For Husserl, the goal was to be able to closer apprehend the "essence" of things "as they are," and provide an "pure" or "primordial" description of that phenomena (Ihde 1976:28). Ethnomusicologist Harris Berger notes that the application of Husserl's epoché shows us that, "strictly as experience, the world is not some subjective and endlessly flexible fantasy, and neither does experience merely mean result from sense data colliding with our nerves" (Berger 2010:68-69). Experience cannot be reduced to simply object or sense perception. In contrast with Peirce's theory of signs, Husserl introduces the concept of intentionality, the "directedness" of our conscious states (Moran et. al 2012:67). Berger points out that, because of this, consciousness never exists by itself—it is constituted by the intentionality of a "consciousness *of* something" (Berger 2010:69 quoting Husserl 1962[1913]:223). These "somethings" constitute the whole of human experience, from memory to emotion, from physical objects to time itself.

Husserl's approach considers *temporality* to be the fundamental substrate of experience by which one becomes aware of feelings and sensations that form the narrative of a living present. "Objective time" is, for Husserl, a "proto-level" of perception (2014:48). It is an "emer-

gent process" constituted by directing our intentionality towards, and become aware of our perceptions that create the experience of, the "*living present*" (ibid.) The "living present" is a term which characterizes the manner in which the ego experiences time (Moran and Cohen 2013:88, 196). It encapsulates the concept of how the ego understands itself as implicated in the flux of *unity* and *flow* of consciousness, or *inner time-consciousness*. Husserl frequently explains the experience of inner-time consciousness through metaphorical comparisons to melody. As in the multi-temporal experience of hearing and retaining melody—the assimilation of musical events as they elapse discretely and moment-to-moment into a unified narrative—Clarke notes that "[t]o be conscious is to know one's being from one moment to the next and to generate some apprehension of unity — an enduring self, an enduring world (weather 'real' or illusory) — out of the experience" (Clark 2011:1). In this way, temporality is understood as a fundamental substrate of both music listening and of consciousness, for to listen is to direct one's attention or intentionality towards sound evolving over time, thus to a communicative narrative exclusively processed inside the listener's subjective self; and for to be conscious is to witness the apprehension of a contiguous world as time elapses, experienced by the subjective self (Clarke 2011: 1). A key implication of this is that the experience of the passing of time as *inner time-consciousness* is understood as different from "objective time," or time which is measured heuristically with a clock.

Varela's biological, neurological approach is a revision of the terms of Husserl's time consciousness and brings in additional existential implications of being-in-the-world. It assumes the aforementioned view that consciousness emerges from neural activity and embodied agents that are under the influence of their environment (Chagas 2010:118). Specifically, Varela's account emphasizes the ideas of *embodiment* and *self-organization,* especially through his key term

of *enaction* (Chagas 2010:119). From Varela's perspective, cognition is in part an experience of *embodiment* — i.e., it is the manifestation of conscious process through multiple levels of interconnected sensorimotor activity. Cognition is also a process mediated by *self-organization* in the sense that it "involves autonomous activities, which are determined by the self-organizing patterns of neuronal activity" (ibid). A major departure of Varela's neurophenomenological approach from that of Husserl is the abandonment of the linear and sequential notion of time consciousness which characterizes Husserl's theory. Instead, Varela proposes a non-linear and malleable conception of time as presenting itself as having a complex *texture*, in addition to the aforementioned notion that it is "an experience that cannot be measured by a clock" (ibid).

Both of these structures of experience prove fruitful in music analysis, allowing us to construct an analytical narrative in an "ideal" sense through Husserl, and re-imagine this "idealization" as per the more complicated, embodied realities of the listening subject through Varela. Varela's notion of time as a dynamic and recurrent constitution of being interfaces with notions of music listening being an experience of *simultaneity* described as "polyphony" (ibid). As per the idea of polyphony—a term which is explored variously and in greater length in both another text by Chagas[27] and, in the theoretically unrelated but contextually similar *Phenomenology of Sound and Voice* by Don Ihde (1976)—music listening is an active process whereby the listener and their existential being-in-the-world becomes an active agent in rendering music phenomenon's signification and meaning of music phenomena.

Chagas breaks down the temporal perspectives of Husserl and Varela into tripartite definitions, which he then re-contextualizes for use in music analysis (2014:49). The process begins

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[27] "Polyphony and Embodiment: A Critical Approach to the Theory of Autopoiesis" (2005)

with Husserlian time consciousness, which is summarized into the level of (1) *temporal objects,* (which recognizes that both physical objects and inner-consciousness share the same temporal features); (2) the level of *immanent acts* of consciousness (which suggests that mental acts and perception are inextricably linked); and (3) the level of "the absolute self-constituting and time constituting flow of consciousness" (which acknowledges that the experience of time occurs in an extended temporal horizon of past, present, and future). These terms are framed by Chagas in the following list (Chagas 2014:49).

1. The first level of *temporal objects*—the perceived unities of the consciousness.
2. The second level of *immanent acts* of the consciousness.
3. The third level of the absolute self-constituting and time-constituting *flow* of consciousness

As many music scholars who draw on phenomenology point out, Husserl frequently used music as a metaphor to for these concepts. For instance, he describes that "the tone in its durations" as a temporal object (Chagas 2014: 49, quoting Husserl 1991:24). Temporal objects have a double aspect of *duration* and *individuality* (ibid.:49-50). A tone is a temporal object — a "perceived unity" of consciousness — in so far as it does not disappear without a trace and is experienced as a discrete gestalt phenomena rather than (as we understand it theoretically) as modulating sinusoidal vibrations. A "unity" is perceived. Objects are apprehended through directing our intentionality towards the object as it emerges and fades off, encapsulating its *duration* and bringing us through lived experience to the second level of "*immanent acts* of consciousness." This refers to the lived experiences which characterize, or even manifest as, consciousness. Finally, the third level of "the absolute self-constituting and time-constituting *flow* of consciousness" is understood as representing the temporal whole through which the ego as it understands and apprehends itself as contiguous in time.

To reiterate, spectral semiotics adapts these concepts to music analysis. It "distinguishes music-sound temporality at different levels, from [1] *sound-objects*, to [2] intentional *music-objects*, to [3] the absolute *musical flow*" (Chagas 2014:49, numbering mine). Sound-objects are the first temporal level of spectral semiotics, a notion which corresponds with Husserl's temporal objects. They are any and everything which is a sound, inclusive of noise. In context, sound-objects are any and all sounds and noises which exist within a subject's auditory "horizon." In Don Ihde's usage, a "horizon" is the extreme fringe of an auditory field, the point beyond which nothing is perceived (Ihde 1976:38-39). A sound-object may be apprehended as a *music-object* through directing one's attention or intentionality towards that sound-object. Immanent in the context of inner time-consciousness and the flow of lived experience, music-objects are experienced in what phenomenologists such as Ihde term a temporal span. Corresponding with the ideas of Husserl, sound-objects and music-objects are understood as having a double aspect of *duration* and *unity* (Chagas 2014:49-50). As Chagas notes, we may understand these aspects in the context of music:

> The *duration* of sound and music objects-events depends on intentional directions such as an envelope, a crescendo or a diminuendo, an ascending or descending scale, the profile of a melody, or musical structure. The *unity* of sound and music objects-events depends on the fact that they stand out as distinct wholes against the background of other events. (ibid)

Finally, the "absolute *musical flow*" parallels with Husserl's third level of the absolute self-constituting and time-constituting *flow* of consciousness. This is the structure and arc of the given music as it exists not as experienced, but as an abstract concept, as an ideal temporal continuum which we understand as having unity and duration in and of itself.

Speaking in terms of music, Husserl writes, "[a]t any given time I hear only the actually present phase of the tone, and the objectivity of the whole enduring tone is constituted in an act-continuum that is in part memory, in smallest punctual part perception, and in further part expectation" (Chagas 2014:49, quoting Husserl 1991:25). Sound-objects and music-objects exist in what is referred to as a "field of time," in which they present themselves as having structure according to the concepts of *protension* ("the onset of features coming into perception"), *retention* (the memory of the echoes or reverberations of a sound-object as it fades out of presence), and *protentation* ("temporal 'empty intentions' that 'search' the coming into presence such that they may be fulfilled or frustrated") (Ihde 1976:89-91). In other words, tones reverberate in memory and within the flux of inner-time consciousness and "sink" into the just-past. "At their extreme point," writes Ihde, "there is a horizon that transforms genuine recollection that is the first genuine appearance of memory" (ibid.:92). Husserl proposed an influential linear diagram to serve as a metaphor for the experience of time.

In contrast with Husserl, and drawing on the post-Husserlian works of Heidegger and Merleau-Ponty, Ihde stresses that the *shape* of the auditory-temporal "field" cannot be understood through a "linear" metaphorical model, as linearity is a reduction of the complexity of the *depth* of experience, of temporal duration, and of various grades of intentionality (ibid.:90). If we reorient the intentionality of our audio-temporal focus, musical experience is differentiated. A "narrow" focus on small-scale phenomena, such as a singular sound-object event of a tone as it immediately announces itself, makes the background of my experience recede to the fringe of the horizons of other ongoing, non-intentional, sensory experience. Ihde uses speech to exemplify of this concept. Focusing on the single syllables of a spoken sentence, I may become highly con-

scious of phenomena such as "the aspirated *s* that is characteristic of the other's speaking style." However, as my intentionality is directed away from the "broader" focus on attending to what is being said, I may contrarily be entirely unsure of what the person said (ibid). This is analogous to apprehending a succession of notes by focusing on musical events as they occur in the living present to the extreme that I may forget the arc of a melody that just occurred.

Varela's neurophenomenology is highly influenced by Husserl's phenomenology of inner time-consciousness. It is a neurobiological approach which assumes that consciousness is based on neural activity (Chagas 2014:50-51). Varela maintains Husserl's position that time accounts for the way consciousness is built and the way which we experience things in the world (Chagas 2014:48). He understands inner time-consciousness as constituting an ultimate "substrate of consciousness": the experience of the living presence is the point in conscious experience at where no further reduction is possible (ibid). He thus maintains the logic of distinguishing between "objective" time (the time of nature or "clock-time") and time as a conscious experience. However, in opposition to Husserl's linear approach to a phenomenology of inner time-consciousness, Varela approaches questions of the constitution of consciousness and internal time through a dynamic-cognitive approach. I quote Chagas' summary of Varela's understanding, which relates auditory perception to musical sounds.

> [According to this approach] the constitution of time is related to the perception and identification of *patterns* occurring at different levels of temporality. This happens for example, when auditory perception distinguishes a sound in the acoustic environment. An auditory pattern of multi-stability emerges as sound qualities such as pitch, loudness, or timbre. The perception of percussion sounds, for instance, is shaped by the transient aggregates that briefly occur at the attack phase. Other sounds such as voice and strings require more time to be identified. Such an approach discloses a non-linear, dynamic conception of time, which presents itself as having a complex texture.

Drawing from his neurological and biological research, Varela proposes a "non-linear account of time based on the cognitive integration of three scales of duration" (Chagas 2014:50). These three scales are:

> 1. The 1/10-second scale (between 10 and 100 milliseconds): the level of basic identification of elementary events perceived as non-simultaneous; the minimum distance needed for two stimuli to be perceived as non-simultaneous.
> 2. The 1-second scale: the level of relaxation time for large-scale integration, which corresponds to the time of completing neuronal interconnections; the time it takes for a cognitive act to be completed.
> 3. The 10-second scale: the level of descriptive-narrative assessments; it is linked to our linguistic capacities, which constitutes the flow of time as related to personal identity. (ibid)

Chagas then applies this graded account of time-consciousness to a musical context by introducing three terms for use in musical analysis—*identification*, *relaxation*, and *descriptive-narrative assessments*—each of which correspond to Varela's three scales of duration of cognitive integration:

> 1. *Identification* of elementary sound objects: perception of pitches, timbres, dynamics, chords, and intervals.
> 2. *Relaxation* time for integration of sound objects: perceptions of motives, melodies, gestures, harmonies, and textures.
> 3. *Descriptive-narrative assessments* for large-scale integration: perception of phrases, cadences, and formal structures. (ibid)

This tripartite definition of Varela's scales of duration of cognitive integration correlates with Chagas' tripartite contextualization of Husserlian time consciousness as (1) *sound-objects*, (2) *music-objects*, and (3) the absolute *musical flow* in analysis.

Another critical element of Varela's approach is his theories of *affectation*. For Varela, affect emerges correlated with a loss of what he terms *transparency*. Transparency is defined var-

iously as “an unreflective absorption that can interrupt the flow of experience”; “readiness or dispositional tendency for action in the horizon of our lives”; and as “an expectation about the way things in general will turn out” (Chagas 2014:51, quoting Varela 1991:299). He identifies three different degrees or scales of affect, termed “affective tonalities”, into which transparency may be broken down. These three categories of affect are may be distinguished as having a homologous but not necessarily isomorphic relationship to Varela’s three scales of temporality, and are as follows.

1. *Emotion*: the awareness of a tonal shift that is constitutive of the living present.
2. *Affect*: A dispositional trend proper to a coherent sequence of embodied actions.
3. *Mood*: which extends at the scale of narrative description over time. (ibid)

Ultimately, the phenomenological perspectives of Husserl, Ihde, and Varela, taken in conversation, provide various a multilayered framework for exploring, apprehending and describing the structure of my experience of «Recueil de pierre et de sable».

CHAPTER IV. Analysis of «Recueil de pierre et de sable»

1. Introduction: «Recueil de pierre et de sable» as a Metaphorical Zen Garden

Before I press play on my digital file of «Recueil de pierre et de sable», and before I look at its score or its sonogram, I first look back to its concert notes. Fineberg writes,

> «Recueil de pierre et de sable» is named after a book written by the 13th century Zen monk Muju Ichien and takes its inspiration from the rock and sand gardens in and near Kyoto, Japan. The two harps (which together form a sort of super-harp with micro- intervallic capacities) act on the sustained sounds of the ensemble like a rake on the sand. As with the rake and sand, the successive interventions of the harp progressively create ever larger, and more intricate designs - shaping the architecture of the piece. The discontinuous, non-symmetrical elements of the gardens (often expressed with collections of large boulders) are also used as a source of inspiration; isolated elements, exhibiting no apparent relation to the rest of the musical material, are used to set-off and orient the perception of the larger form. (Fineberg. Accessed 2017).

As I read over these lines, I find that many words have a powerful semiotic function which create an affective mood, priming me to make certain musical connections and cultivating an indexical cluster of Zen-related concepts before listening even takes place. And so in analysis, I will approach the piece as I may approach a Zen garden, as the ephemeral and vague, yet unequivocal and powerful, memory of the affective atmosphere of the Zen gardens I have visited reverberates in my mind. However, I note that many readers of this will have only images and words as reference. Beyond these memories that I describe, over the course of the composition of this thesis, I have become very familiar with the metaphors that Fineberg uses to describe this piece in greater detail than what would be provided to a normal listener confronted with the pieces concert notes

or CDs liner notes. It should be clear by this point that in so far as my semiotic analysis proceeds from me, these memories—and indeed the aggregate of all of my other experiences, biases, and unconscious tendencies—constitute my semiotic account of this recording. It is not my goal, however, to merely verbalize my experience of a piece of music. Rather, my goal is to show how, at least in my experience of «Recueil de pierre et de sable», I hear signifiers of Zen experience that function musically—that is, through perceived organized sound—as not only metaphorically Zen, but experientially Zen, in so far as they create an affective atmosphere of "Zen"ness. Moreover, I suggest that the sound- and music-objects/events that I identify in my analysis function not merely through P-symbolic descriptions that come to function as iconic metaphors, but rather through participating in what Weiss calls a "circulation of metaphors," featuring aesthetic qualities—that is, qualities of Firstness—that may be related to Japanese and Zen related aesthetic ideals, as does a Zen garden. When I first heard the piece, I had only my brief notes on the *ryūteki* from Fineberg's lecture and the concert notes, but based only on this and my (notably limited, then and now) understanding of Zen, I felt like I understood Fineberg's metaphors instantly, at least in a superficial way. In other words, it is my hope that my analysis may prove to be fruitful in illustrating the experience of abstract spiritual and philosophical concepts in a work of art, based primarily on the art as it presents itself to the senses—rather than on abstractions applied on top—in a way that may resonate with the experience of others. Because of this, in general, I try to proceed from primarily the information that is provided by the concert notes in my analysis. This being said, then, before we begin, I will take a moment to explain in more detail what the signs in these concert notes mean to me, the interpretant.

The phrase, "the rocks and sand gardens in and near Kyoto, Japan," for instance, function as powerful indexes for me because of my direct experiences with the object of the sign, and my

powerful affective response to the sensory environment of Zen gardens and the temples in which they are built and rigorously maintained for centuries. As I have mentioned elsewhere, I have spent time during my academic year abroad in Japan studying Zen and other Buddhist temples; and have returned to Kyoto to research them in greater depth for this current project. Reading this, I first I think of the objects themselves: Figure 4, for example, represents one of them. It is a photograph that I took of the *karesansui* (dry landscape garden) at Ryōan-ji, Kyoto, completed in 1450. Ryōan-ji, sometimes referred to as a "garden of emptiness," is one of the most often remarked upon and praised Zen gardens in Japan (Weiss 2010). As German author Guenther Nitschke explained, "in the opinion of garden expert Mirei Shigemori, the *karesansui* garden [at Ryōan-ji] reflects two aesthetic ideals fundamental to Muromachi period thinking: *yūgen*, a profound and austere elegance concerning a multi-layered symbolism and *yohaku no bi*, the beauty of empty space" (Weiss, 2010:60, quoting Nitschke, 1991:115). This dry landscape garden contains 15 stones of ambiguous iconography, suspended upon a void (ibid). Other gardens also come to mind, such as those in Daisen-in, a subtemple of Daitoku-ji in Kyoto. The dry landscape gardens of Daisen-in have a much more explicitly (or explicatively) iconographic history, in contrast with that of Ryōan-ji. Tourists visiting Daisen-in are given a map of numbered landmarks

Figure 4. The *karesansui* of Ryōan-ji in Kyoto, Japan.

which guides the visitor through the symbolic meanings of trees, rocks, moss, and sand to form the overall symbolic theme that the garden is the whole of the life of a human being.

I orient my semiotic analysis through the central, recurring metaphor of «Recueil de pierre et de sable» as a dry landscape garden. This is important not only because I observe a plethora of iconic, indexical, and symbolic functions which relate to the sign of the dry landscape garden in my hearing of the sound- and music-objects/events of the piece, but because for me, this indirectly, through the signs of signs, places «Recueil…» in the affective realm of Japanese and Zen-related aesthetic sensibilities. It places it in the narration of iconicity that, according to Weiss, contextualizes and characterizes these aesthetic sensibilities (Weiss 2010:89). At the core of these aesthetic sensibilities is the signification of the experiences at the core of Zen, which I discussed earlier. These include the ideas behind kōan practice, Suzuki's Zen Verbalism, and the apocryphal flower and silent sermon that communicated the essence of Zen from the Shakyamuni Buddha to Mahākāśyapa (Dumoulin 2005:9). Weiss observes, "The Zen garden is like a haiku. Rinzai Zen short-circuits logic, metaphor, imagery, narration. The very intuition of the instant is a form of narration, abstracted from the flux of time's passing, yet revealing nothing more than the ephemeral" (Weiss 2010:93). It borrows the mystical truths immanent in natural forms, and as Itoh Teiji explains, it *captures them alive*[28] on variegated levels of symbol and realism (Itoh 1973:15).

In his book and in the concert notes, Fineberg discusses how the percussive attacks of the harps act on the ensemble as if the ensemble were a sounding board, in the metaphorical context

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[28]As mentioned before, this term literally means "borrowed landscape." Itoh stresses that the essence of the term is "*to capture a landscape alive*", emphasizing a sensitivity to the ephemera of nature that he sees as essential to gardening techniques. The gardens which we refer to today as *shakkei* gardens began to be designed and cultivated during the Muromachi period (1973: 15). Dry landscape gardens (*karesansui*) are but one of the many other types of *shakkei* gardens.

of the Zen garden (2006:121). I plan to show how the metaphor of the sound of the two harps to "[acting] on the sustained sounds of the ensemble like a rake on the sand" may be an iconic inkblot function (whereby one makes imaginative leaps in order to make iconic connections in forms where such iconicities are not explicit). This inkblot function not only suggests that the sounds of the harps, and the "super-harp" which they form, may be heard as a rake by means of signs functioning as icons, but also provides a context such that the sustained sound of the ensemble interacts with and responds to this rake not as two flutes, a clarinet, violin, viola, and cello, but rather as sand, flowing, developing in intricate and delicate undulating ways.

Fineberg also utilizes a number of textural, harmonic and melodic ideas which emulate traditional Japanese and Japanese Buddhist musical arts, while expanding the range of expressive colors possible. Specifically, as we may recall from the excerpt from his book, through orchestral synthesis, he recreates the texture and tone of the *shō*, a Japanese mouth sound organ with 15-17 pipes and free reeds, as well as the *ryūteki,* a Japanese transverse flute with a remarkable "doubleness" in its sound due to its two tubes of different lengths and diameter (ibid.:121-122). Both of these instruments are used in *gagaku* court music. *Gagaku* court music was originally recognized as court music in 702 AD by the official Japanese "Bureau of Music" (Wisconsin-Green Bay 1998; Kapuscinki and Rose 2010-2013). The melodies of *gagaku* court music produced by the *ryūteki* share certain important elements in common with *shōmyo*, a style of Buddhist chant practiced in Shingon Buddhism (a distinct school from Zen entirely). Along with *gagaku*, it is considered as two of the longest sustaining forms of Japanese classical music (ibid). Both of these traditions employ a pentatonic scale called the *Yo* scale, an example of which may be rendered in Western notation as D - E - G - A - B. Although we will not see Fineberg utilizing exact-

ly these notes, melodic formations and harmonic highly evocative of *gagaku* and *shōmyo* ebb up to the surface of Fineberg's timbral sea of sand and emptiness.

Curiously, Fineberg utilizes *gagaku* instrumentation despite *gagaku*'s general disassociation with Zen Buddhism. Although he engages with specifically Zen-related thought in his composition, the conflation of these discrete inspirational materials has a remarkable semiotic effect that in part exhibits an obfuscation of historicity that is typical of contemporary imaginary conceptions of pre-Modern Japan. The conflation and idealization of pre-Modern Japanese culture is a common phenomena which we have already considered previously with regards to D.T. Suzuki.[29]

In my analysis, I will indicate places where Fineberg references these ancient Japanese musical ideas, and explain the ways in which these musical ideas, in my listening, constitute affective tonalities of "Zen"ness. I will discuss how these elements also cultivates aesthetic ideals related to Zen. As I have mentioned before, these aesthetic ideals include the profound mystery and depth characteristic of *yūgen,* and of *wabi*, whereby, in the words of scholar Koshiro Haga, "a higher dimension of transcendent beauty is created by the dialectical sublation of an inner richness and complexity into the simple and the unpretentious" (Varley 1989:197). Furthermore, I will show how "discontinuous, non-symmetrical elements" create aleatory affects essential to Zen-related arts (especially in dry landscape gardens, pottery for tea ceremony, haiku, and painting) (Weiss 2010). At the same time, I will attempt to account how the conflated semiology of *gagaku* and the Zen of Higashiyama Culture functions in my perception of the sounds, and what

[29] Other common historical faux pas include the conflation of "wabi" and "sabi" despite "wabi" being explicitly associated with tea ceremony and generally associated with Higashiyama Culture, as discussed above, whereas "sabi" is most overtly associated with poets writing during the Edo period (1603-1868) (Richie 2007:44-45).

this perception may reveal about transcultural imaginary conceptions of pre-modern Japan in a more general way. Overall, through the touchstone of this metaphor, I plan to show how the equivocal signs and their unequivocal objects, emergent from «Recueil de pierre et de sable», become, to adopt Weiss's wording, "a palimpsest of materials and forms," of the world and the void, of ephemeral temporalities and anachronistic meaning (Weiss 2010:93) that contribute to an overall affective tonality of "Zen-ness".

2. Temporal Segmentations of «Recueil de pierre et de sable»

The phenomenological element of the spectral semiotic method begins in this introductory section with a consideration of the temporal structure of «Recueil…», represented by the sonogram in Figure 5 (Chagas 2014:51). This visual representation, or "existential metaphor," of the frequency, amplitude, and phase of «Recueil…» is a tool which makes it relatively easy to visualize how patterns of sound energy evolve over time. It encapsulates the living, temporal flow of sound anachronistically, existing outside of or suspended in time like a fly in amber. It allows us apprehend, at once, visually (for we cannot apprehend, at once, aurally) what Chagas calls the "absolute musical flow" (Chagas 2014:49). In this way, I first discuss the piece in a brief, abstract overview, presenting it on the macro-level, and as segmented on three different temporal levels which correlate (albeit not absolutely) to Varela's three-tiered scale of affecta-

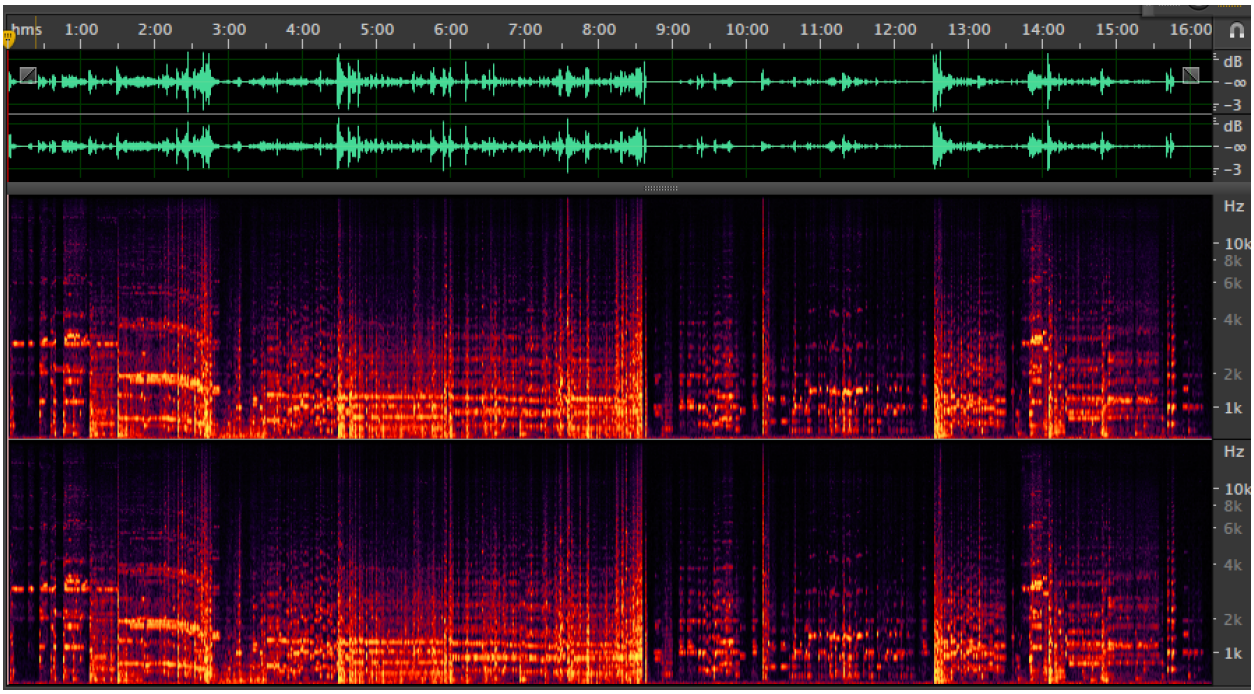

Figure 5. Spectral information of the entire recording of «Recueil de pierre et de sable»

tion. In the sections following, I take a multilayered, linear approach to analysis, using the temporal segmentation of «Recueil…» to these different time scales as an analytical scaffolding. Using Chagas' adaptation of Varela's terminology, in a sense I perform a "descriptive-narrative assessment" of the emergence panoply of affect from the acoustic qualities of «Recueil…» which, for me, signify "Zen-ness," by considering these sound objects on the temporal levels of both "relaxation time" for the integration of sound objects (i.e. motives, melodies, gestures, harmonies, and textures), and "identification" of elementary sound objects (i.e. perception of pitches, timbres, dynamics, chords, and intervals) (Chagas 2014:50-52).

By using digital tools to draw marks which segment «Recueil de pierre et de sable» according to three different temporal levels, correlating with Varela's scales of affectation, we may gain insights into how the relationship between sound and temporality in this piece contributes on the deep-structural level and the experiential level to the fostering of an affect which corresponds, in novel ways, with traditional elements of Japanese and Zen-related aesthetics (Chagas

2014:52). As a reminder, for Varela, affect is constituted by a loss in *transparency*. He uses this word to describe an unreflective absorption in the flow of experience, that can itself interrupt the flow of experience (ibid.:51). In other words, it is a "readiness or dispositional tendency for action" in the various, broad temporal horizons of our lives, an "expectation about the way things in general will turn out (Chagas 2014:51, quoting Varela 1999:299). We may also recall the definition provided earlier by Seigworth and Gregg: "affect arises in the midst of *in-betweenness:* in the capacities to act and be acted upon. Affect is an impingement or extrusion of a momentary or sometimes more sustained state of relation, *as well as* the passage (and the duration of passage) of forces or intensities" (2010:1). When transparency is lost, the flow of experience is interrupted and broken down, and a panoply of "affective tonalities" respond to different degrees of this breakdown. This sort of temporal analysis will give us access to the information which gives this piece its overall form, from the small-level sonic vibrations which make up individual notes, to short melodies, the interplay of instruments and timbre/texture, harmonic and textural forms, larger sections and finally the piece as a whole. Figure 6 shows the different levels of time segmentation of «Recueil…», increasing in density from top to bottom.

The top spectrogram represents the third temporal level, and the large scale form of the piece. Per its score, «Recueil…» is divided into three sections, indicated by rehearsal markings [A], [B], [C] and [D]. [A] is comprised of mm. 1-89—from 0'00" to 4'27", a total duration of 4'27"—, [B] of mm. 90-160—from 4'27" to 8'44", a total duration of 4'16"—, [C] of mm. 161-251—from 8'44" to 12'31", a total duration of 3'47"—, and [D] of mm. 252-309—from 12'31"—16'17", also totaling 3'47". Looking at the spectrogram, we can observe apparent shifts in patterns of sound information at these locations. The durations of these sections are also very similar, visually and numerically: each section is on average 244 seconds, with a standard devia-

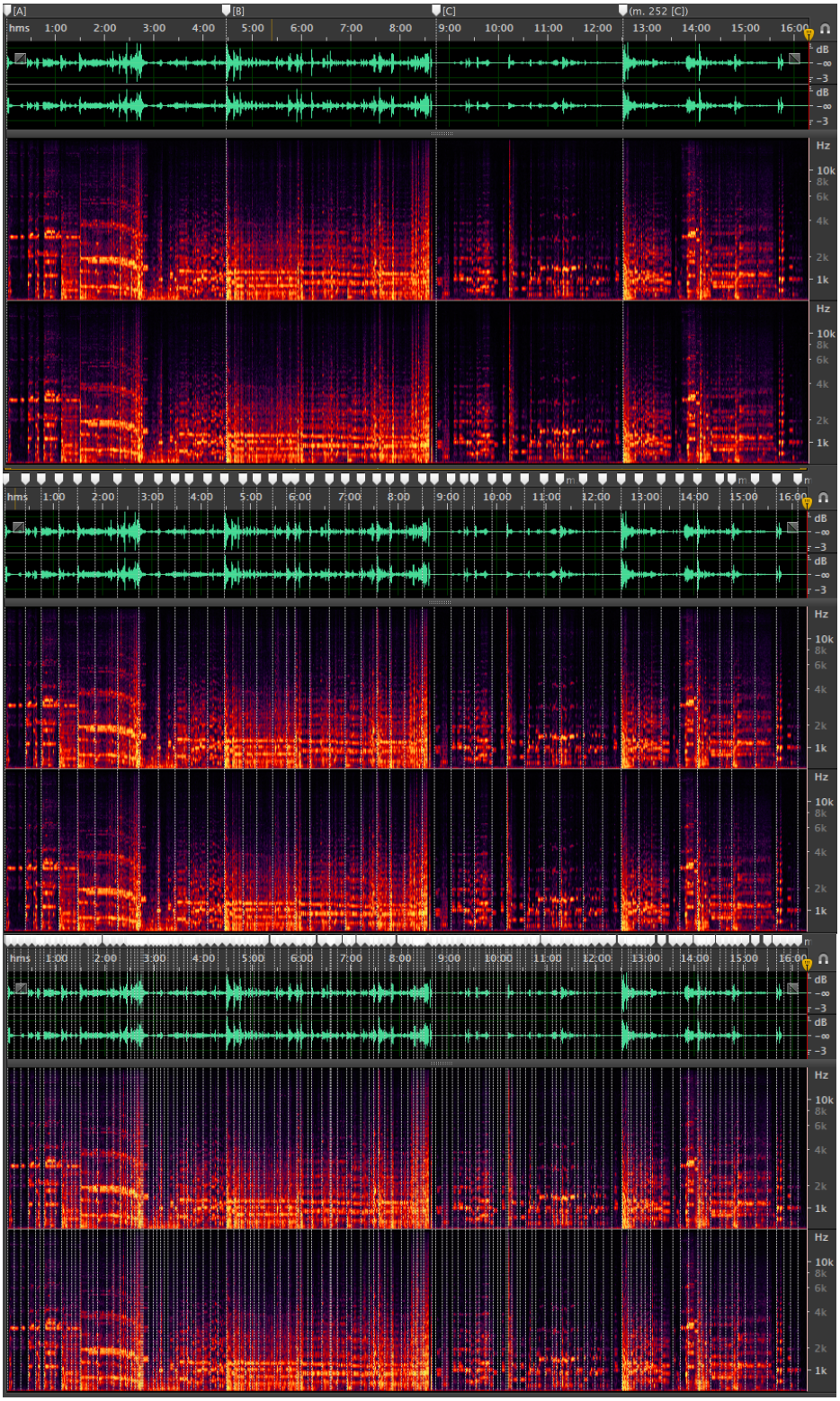

Figure 6. Three levels of temporal segmentation of entire recording of «Recueil de pierre et de sable»

tion of 20 seconds. In terms of musical structure, these sections have the most apparent and regular relationship between what is written in the score and what is perceived (at least in my listening) as a stark, delineating change in affect. On this macro- structural-scale, the piece has a symmetrical quality, and thus is the scale where presence of form is visually and iconically distinct.

The middle sonogram shows the second temporal level of the piece. The first segment corresponds to measures 1-9, the second to measures 10-16, the fourth to measures 17-23, and so on. As we will consider with greater attention shortly, there is relatively more ambiguous metrical, temporal, and overall structural regularity on this second temporal level. Based on my hearing of music and sound objects demarcating structure, I divided section [A] is divided into 12 sub-sections with an average duration of 22 seconds and standard deviation of 2.8 seconds; section [B] into 14 sub-sections with an average duration of 18 seconds and a standard deviation of 3.4 seconds; section [C] into 11 sub-sections with an average of 21 seconds and a standard deviation of 4 seconds; and section [D] into 9 sub-sections with an average of 23 seconds and a standard deviation of 4 seconds.

At this point, it is important to make it be clear that my inclusion of average durations and standard deviations is not part of the model set out by Chagas, but rather is my attempt to provide more information about the sonic unities of the multiple temporal levels of this piece. In Chagas' 2014 explication of spectral semiotics, he analyzes Chopin's Nocturne Op. 27 No. 1. This nocturne, entirely in common time and generally *largo*, exhibits much a clearer distinction and correspondence between music- and sound-object/-events in the spectrogram and the metrical structure of the score on all of its temporal levels. «Recueil…», on the other hand, as we will see, exhibits increasing degrees of ambiguity and asymmetry as we approach smaller temporal

scales. Although on the first temporal level meter quite obviously defines structural divisions, on increasingly smaller scales, this sort of elementary statistical analysis of time facilitates a clearer understanding of the constituent music- and sound-objects/events of «Recueil…» than if we were to simply think of the structure of the piece in terms of its constituent measures. Because of this, in my analysis, I often refer to short unities (abbreviated as SU [#]) with corresponding times indicated in parenthesis.

The lowest sonogram shows the first temporal level of short unities in the piece. Whereas, in the case of Chagas' analytical model, Chopin's Nocturne Op. 27 No. 1 can be divided into short unities which correspond more or less directly with meter, as just adumbrated above, «Recueil…» is not so easily divided. Because of this, though the measure-numbers second temporal level remain labeled and so easily orient us to the score, I have eschewed labeling the measure-numbers of these short unities except in the cases where an aural event corresponds directly with the second temporal level. At any rate, following the example of Chagas, these short unities are still in general one to four measures in length (specifically, an average of 2.3 measures each).

Because of the duration of the piece, it is difficult to make out any detail in the third temporal level of short unities on the page in Figure 6. Figure 7 shows different temporal levels of only the [A] section of this piece. From this zoomed-in perspective, we can more clearly see the relationship between the level of short unities and the second temporal level.

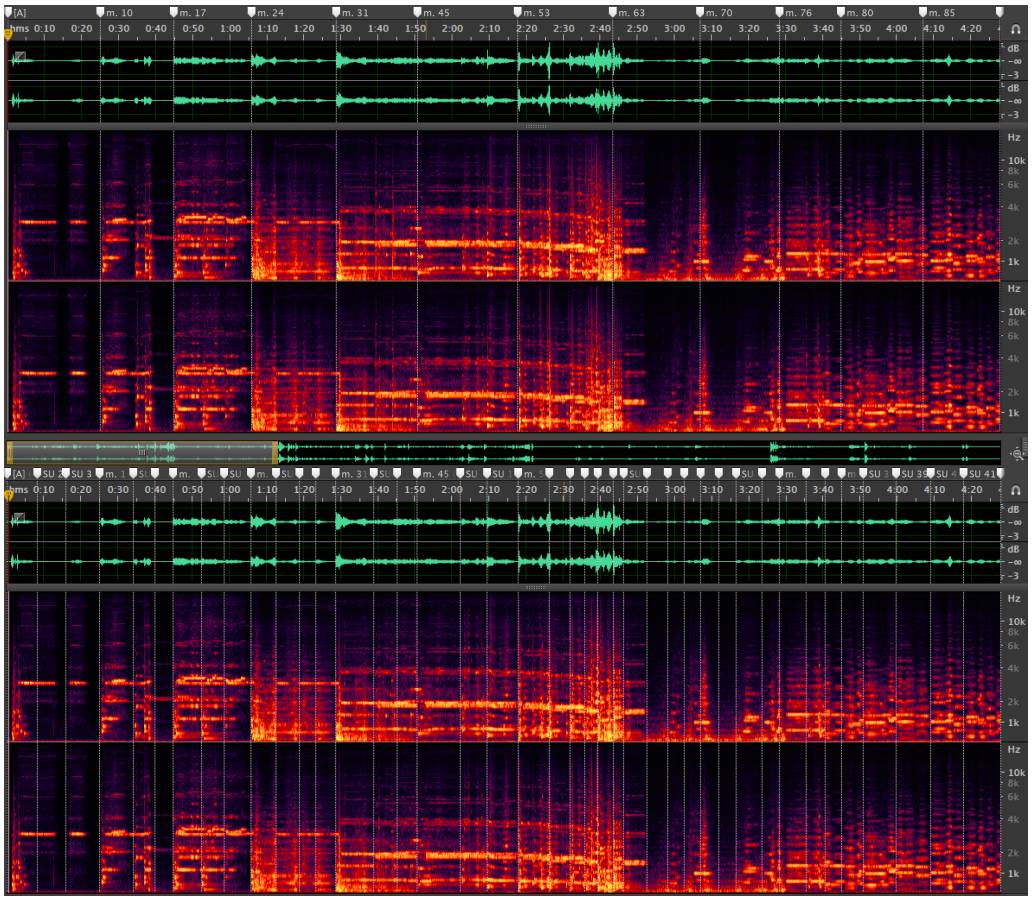

Figure 7. Section [A] of «Recueil de pierre et de sable» & two levels of temporal segmentation.

This sonogram makes visually apparent that, in «Recueil de pierre et de sable», on the second temporal level, the most prominent sound- and music-objects/events, i.e. in terms of dynamics, spectral density, and overall sonic intensity, are neatly in line with metrical divisions. The sound- and music- object/event cues that correspond with short duration musical events are, fairly evenly spaced. They are, however, often less visually apparent on the sonogram, and more rhythmically unorthodox in musical notation. In the flux of musical experience, rather than metrical beats, they are perceived as rhythmic densities that contract and expand. Within this temporal scale, Fineberg, in part per his spectral compositional orientation, privileges the felicity of musical events to psychoacoustic perception over the constraints of the symbolic subdivisions of musical notation, as we saw in Chapter 2, section 4. (Fineberg 2000:104-105; Fineberg 2006). In his

"Guide to the Basic Concepts and Techniques of Spectral Music" (2000), Fineberg discusses rhythmic techniques sometimes used by spectral composers, such as using absolute temporal durations as a starting point for engraving sonic ideas through rhythm quantification.[30] Of quantification and perception, he writes,

> the ear's ability to discern rhythmic anomalies is very context dependent. For example, during an accelerando, if one of the durations is longer than its predecessor (a micro rallentando) by even a few hundredths of a second, it will be perceptible; whereas a note that lasts eight seconds and a one that lasts nine seconds will be indistinguishable when there are no external beat cues to mark the length. (Fineberg 2000: 104)

The specious temporality of the prolonged notes becomes obvious in the prolonged drones that seem to suspend time.

It seems to me to be the case that Fineberg exhibited such conscientiousness of the disjunction between absolute duration and symbolic rhythm in creating some such cognitively ambiguous affects in «Recueil. . . ». Short duration sound-objects of the ensemble are rarely percussively cued; rather, as we will consider in greater depth, subtle divergences on the level of pitch, harmony and timbre produce small-scale locales of textural vagueness and temporal suspension, such as we immediately see and hear in SU 2 and SU 3 of the Figure 7. Though the result of clearly deliberate calculation and, presumably, affective consideration, these short unities and nigh all others, unyoked from the formal balustrades of «Recueil…», have qualities on the levels of rhythm, pitch, harmony, and timbre which are, for me, iconic of the aleatory, which we have seen is a critical element of Zen-inspired aesthetics (Weiss 2010:89). The perceptual indetermi-

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[30] Quantification is "the approximation of continuous temporal events into the discrete units of musical rhythmic notation" (Fineberg 2000: 104). This task is typically expedited using software, such as the Kant quantification editor.

nacy of the duration of the short unities in the piece *writ large*, which in temporal terms most closely correspond with Varela's 10-second scale and the affective tonality of *mood*, cultivate an affective tonality of the aleatory. In these such ways, the architecture of «Recueil de pierre et de sable», in terms of large-scale, formal regularity and short-duration, aleatory irregularity, becomes a simulacrum of "Zen-ness" encapsulated and temporally bound. For, it is the case that form emerges from what often seem to be non-figurative matrices of sound, somehow at once irregular and (in the sense that they are often self-similar yet ultimately unique) mimetic. To again reference the words of Allen Weiss, the paradox of the aleatory in the necessary formality of Zen-inspired art is "a maximal tension between the infinite and ineffable formal complexity of the macrocosm and the finite though indeterminate materiality of the microcosm" (2010:89).

The following quote from Weiss I think effectively and gracefully contextualizes this quality of Zen-inspired art.

> In 1477 Hannyabo Tessen, then chief priest of Ryōan-ji, exclaimed, 'Thirty thousand leagues should be compressed into a single foot,' not unlike Baudelaire's claim, 'Have you ever noticed that a bit of sky seen through a vent, or between two chimneys, or through an arcade, gives a more profound idea of infinity than a vast panorama seen from a mountaintop?' Large revelations often occur in very small spaces, sometimes as the result of a radical shift in scale and perspective. (Weiss 2010:89)

Musing on this notion, he refers to aerial photographs taken from an altitude low enough such that one can make out the details of the earth, such as mountain ranges and the slithering curves of rivers. He says that these details, encapsulated in the frame of a photographic image, are remarkably similar to the surface of contemporary Oribe pottery such as the work of Koie Ryōji. In such works, the roughness and imperfections of the pottery constitute a surface for the imagina-

tive evocation mountains. He observes that “in iconographic terms, such images on the cusp between figuration and abstraction, between representation and reality, between the virtual and the material, reveal the destiny of the aleatory trace” (ibid). Recognition of form, in general and in music, is an iconic process (Turino 2008:7). In «Recueil de pierre et de sable», the equivocal emergences and echoes of silences and soundscapes—the transient ebbs and flows of rhythmic density that become modulating eddies of music exist not out of time or inorganic but asymmetric and (perceptually) inexact—constitute short unities, which are sublimated into totality under the rigid and methodical balustrades of its large-scale form.

Moving forward, I consider the microcosms that Fineberg creates. First, inflecting a descriptive, somewhat poetic tone, I provide an account of some notable moments in my personal experience of the piece. This hermeneutical reading is, to be sure, a very abstract verbalization. As I noted at the outset of this thesis, musicians, ethnomusicologists, philosophers and others have lamented or praised the abstract unsayability of musical experience. But like all music analysis, although abstract, this P-symbolic description serves to bring the abstract quality of musical experience back into the realm of linguistic communication, and deepen our appreciation or understanding of a piece by suggesting new modalities for experience. Following this descriptive account, I perform a close analysis of the first nine measures of «Recueil de pierre et de sable», which comprise its first three short unities. Through my close analysis, I suggest how Fineberg immediately works towards establishing an affective tonality of "Zen-ness" through timbre, space, and indexical and symbolic semiotic allusion to Japanese musical arts. Ultimately, I show how the techniques that Fineberg utilizes to create a Zen affect in the “indeterminate materiality of the microcosm” of the first three short unities, or first second-temporal level section, that characterizes the whole formal complexity of the piece in the macrocosm.

3. Descriptive Overview of My Listening Experience of «Recueil de pierre et de sable»

Out of silence suddenly sounds the super-harp, off-kilter impossible densities of tuplets shape an acceleration then rest: the rake shapes an arc, sending off sharp attacks until suddenly as if a stretched-out echo, the piccolo emerges pure and ghostly—white like sand—and rings on in breathy bell-like resonance, then gives to silence in SU 2 (0:08). In this now-moment, the asymmetric barrage of the rake has been replace by the single autonomous sustained sound silenced into this presence of void. The sound then ebbs back in SU 3 (0:16), but unsteady: like a whisper the sound grows, however subtly, the two piccolos finding tension, a doubleness on the precipice of concordance. It is thicker with whispering roughness—I think of a *ryūteki*—but then again, after basking in the gnarled yet austere, *wabi*-like affect of this sound, it, too, finds rest becoming silence. At SU 5 (0:34) The harp punctures through this presence of void, dragging on designs in time: the rough white whispers of the piccolos emerge again as sand, staggering over sand and tracing now a multiplicity of autonomous lines along with it, then waning, thinning, leaving just the thread of the piccolo, which has, in the past, withered into silence—but now, at SU 7 (0:44)[31], the rake strikes again, sustaining the sound which between two piccolos ebbs and flows as a whispery addlepated textural tone drones on, joined again by the ensemble, which sends out a trembling eddy of sound and is punctuated, tentatively then firmly, by the rake. But though punctuated this time I am denied silence: the violin now draws on this echo in time resonating a *pianissimo* harmonic that, in the wash of steady evanescent "sandy" sounds, denies identification.

[31] This short unity begins at m. 17. Subsequent footnotes indicating measure number also refer to when the SU begins in the score only. Generally, I indicate measure numbers for orienting oneself to the score when a SU begins on the downbeat of a measure.

When again the rake falls at SU 7 (0:44), it excites the sand into even more ornate and cascading textures: they interlace thickening the roughness of these stratum of sound, finding undulating (in)stability. The rake falls down on this palette as if exciting the ensemble to ebb and flow in and out of determinacy, creating a continuum of waves as loud and soft and sharp and smooth fading and thinning, and then thinning, just thinning to the *ryūteki* piccolo pair. The gestural sweep of the super-harp returns as if inevitable; the sonic space now is filled with new presence. Stratified lines are engulfed into a wash of waves undulating from the strings. The first tide falls then (at SU 11 [1:12]) the *ryūteki* resonates atop this like a cloud in a sky on an empty sea, where each note laps upon itself and the other strings, purling atop each other in a steady irregular cascade. The harp returns at SU 14 (1:29)[32], exciting the waves; the pitch shifts down drawing closer in space the sound of the *ryūteki*-like piccolos, tickling out timbral tension by filling the continuum between the two. Atop this matrix of the strings and winds, sounds coalesce in and around each other in gestures creating stability over time, but manifest in the moment as indeterminate and ephemeral, as the rake, now sometimes quite delicate, plays atop this wash of sound. During SU 17 (1:50)[33] the clarinet mimes a move that reminds me of the the *ryūteki* as well as the *hichiriki* flutes which characterize *gagaku*: a microtonal upward-sliding gesture drifts like the echo of a memory of a piece through an this illusory sea. In this way becomes a weak index of Japanese arts for this iconic resemblance. The rake teases these sounds out of the texture; they glide out of the ebb and flow of unstable sound, drifting up into the signification and then fading. Lingering on the astringent yet melding layers ebbing in and out of form, focus becomes evermore specious as droning lines are traced from equivocal beginning to equivocal end

[32] m. 31

[33] m. 45

until suddenly, out of nowhere like the transparency-razing *thwack* of a Zen monk's *keisaku* (awakening stick) at SU 20.[34] But after but a moment to catch the breath, the texture continues as before, the pitch dropping again. Another *thwack* comes and this energizes the ensemble: from here begins a subtly tugging microtonal descent[35] of the ensemble in textural blocks full of oneiric moments of *gagaku*- and *shomyō*-esque melodies ebbing in and out of attention, surging out of a rough stillness. This asymmetric and spectre-like ebbing and flowing, which becomes a recurring motif throughout this piece, constitutes an affective tonality of *yūgen*—it is the mystery of "what lies beneath the surface" (Richie 2007:57). Soon after reaching its apex, this deluge of overcome by the onset of a wavelike microtonal gesture from the viola in SU 24 (2:39). The rake strikes again; the orchestra responds in pulses, accelerating, becoming quieter, and enervated. As the pulses speeds silence in this sonic space again begins to become palpable, and as if shot off the crest of these waves, the *ryūteki*-like texture emerges again, in a fuller and more gnarled yet still familiar rough-pure resonance. This sound has become an index within the piece itself; it brings back memories of all its past instances, underscored by this new vivid perspective. It fades off, but never reaches silence as the super-harp begins to bubble.

From SU 27 through SU 33 (2:52—3:28), on top of this low subtle bubbling tremolo coming in waves from the rake, an intricate design begins to take place in the winds in transient breaths. One piccolo switches to the flute, bifurcating the register of the *ryūteki*-like resonant texture. Then at SU 34 (3:28)[36] the rake is quiet; the flute and the orchestra stay still, as if suspended in time until the harp begins to trickle back atop the sand and set into motion a subtle rocking. The ensemble drifts between ephemeral peaks—with the now more-so *ryūteki*-like flutes, sup-

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[34] m. 53

[35] m. 50

[36] m. 76

ported by the clarinet, and sharp-peaked strings—and troughs of momentary silence. From these peaks, more specious moments of *gagaku* and *shomyō*-like microtonal ornamentations whisper out from the flutes. It continues more or less as such until at SU 42 (4:27), section [B] begins.

The harps return with a gesture that echoes their first attack. However, this time it is all the more sudden and aggressive—it strikes the ensemble at a moment of restfulness. The ensemble responds with by filling the sonic space; the texture is much fuller and the waning into silence that I recall is suppressed by a constant drone from the winds, cycling atop and around each other as if a continuous breath. The rake returns in intervals but then is calm. At SU 45 (4:51)[37] the waves repeat as we heard them before but retain this the new textural richness or fullness of this section. Atop this wash of sand, a ghost-like *ryūteki* sound emerges like a figure from shadow yet again and then vanishes, as semiotically salient as it was ephemeral.[38] The texture, however, persists: much longer than its last iteration, the sound floats along with a steady, droning and uneasy completeness. There is no harmonic nor melodic moment in the ground of this soundscape. It folds out before me in time asserting itself upon the future: the whole of [B] sets me adrift on an unsteady drone that is paradoxically outwardly steady, for it persists and is functionally a balustrade, yet inwardly unstable as close-clustered tones and microtones beat from the dynamically and texturally arcing streams of sound from the strings, and on top of which floats a ghostly eternal suspension of breath and moments of ornamented melodies, all punctuated intermittently by the gentle scrapings of the rake. This section is awash in an affective tonality of *yūgen,* resonating with a definition provided by scholar Arthur Waley: "'To watch the sun sink behind a flower-clad hill, to wander on and on in a huge forest with no thought of

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[37] m. 97

[38] mm. 103-104

return, to stand upon the shore and gaze after a boat that goes hidden by far-off islands'…such is the gates of *yūgen*" (Richie 2007:57, quoting Waley 1919). The equivocal yet immutable fixedness of this section suspends time and directs my attention onto time as it is unfolded by the endless breath of the winds and waves of the strings, as the constancy of the material denies any salient immediate recollection and protention, and constitutes the now-moment in specious, multilayered yet fixed flux.

Though this space is not free of sound, I find it evocative of *yōhaku no bi*, the beauty of empty space. It lacks what Turino calls "semiotic density" (2014:189) in terms of pitch, in so far as the grounding pitches remain stable droning, unfolding with a complex, rough, yet not wholly dissonant completeness; on top of which variance emerges subtly and almost imperceptibly until it has happened. Instead of being rich with melodic and harmonic signs, it invites exploration of the dense, rough, yet uniform timbral continuum of the ensemble. Reminding us of the radical temporal differences between humans and the natural order, Weiss quotes Robert Smithson, who famously claimed, "You know, one pebble moving one foot in two million years is enough action to keep me really excited" (Weiss 2010:92). In the transparent absorption of this texture, I think back to the "emptiness" of Ryōan-ji, which itself has been described as a garden of emptiness[39] (ibid). Weiss describes Ryōan-ji as "equivocally symbolic" in the sense that its nothingness is at once physical and metaphysical. An affective goal of this landscape, he describes, "is to reconcile us with this void, whether through anguish or joy" (ibid). The Zen garden creates through its atmosphere an affect that (ideally) directs the mind towards the paradox of the void.

Weiss goes on to note, however, that this is not the only symbolism of the dry landscape garden, or *karesansui* which literally means "dry mountain water." Among its vast range of signs,

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[39] "*mutei*" in Japanese.

metaphors with water and seas are prominent. He references fifteenth-century priest Zōen, who suggests that sand alone may be sufficient to suggest a landscape: "Another type of shoreline scenery is the ebb-tide beach, which has no striking features but simply creates the impression of the tide constantly ebbing and flowing. Here, if just by spreading fine and coarse grades of sand and without setting any rocks, you can visually recreate a single scenic ambience" (ibid). He also references art historian Yoshinobu Yoshinaga, who remarked that "[t]he garden is an attempt to represent the innermost essence of water, without actually using water, and to represent it even more profoundly than would be possible with real water" — in other words, it is an attempt to *capture alive* water in the abstract microsm of the garden. At moments such as SU 63, the rake strikes and a wave ripples through the constancy of the fog-like texture of the ensemble—I sometimes think of a rake changing course as it reaches the edge of a space, tracing more complicated, circular geometric designs, like eddies and vortexes. (I think, for instance, of the intricate gardens at Kennin-ji in Kyoto. Figure 8 is a picture that I took of one such design.) In SU 67 (8:02), the *ryūteki*-like texture emerges again with notably clarity[40]; the waves from the orchestra energize and tear through the texture with scratching strings. The energy builds. This section reaches its fever-pitch in its final SU 72 (8:29)[41], when a maelstrom of sounds emerging out of this weathered texture that has en-

Figure 8. Intricate designs in a dry landscape garden at Kennin-ji, Kyoto.

[40] mm. 150-153

[41] m. 157

dured for so long—nearly half the piece, at this point—and then, suddenly, is dampened to complete, in-transient silence. At the moment the reverberations of this have faded into the past, we hear one final simultaneous gesture from the harp and ensemble, and then over two seconds of silence punctuates the section.

Section [C] (8:44) begins with the emergence of a pure, resonant sonority that creeps out of silence. What feels like a single pitch is augmented by the specter-like transient attacks of other pure pitches. Resonating in haunting ways they adumbrate the sound of a *shō* for a moment and are then overtaken by metallic strings, dancing their timbre round a single pitch. According to Fineberg, these *shō* are like the boulders that sit atop the sea/void of the garden, which may be variously representational and abstract. Silence sets back in for three seconds more, and then the mimicked *shō* is heard in its full ethereal texture and harmony. These drawn out silences, too, are like the beauty of empty space. This first *shō* sits before a sea of sound which is full of indexical signifiers of *gagaku*: the harp becomes strikes with intermittent, in-transient and percussive attacks that ripple through the ensemble, which responds with microtonal slides that approximate the ornamental attacks of *ryūteki*. At SU 80,[42] the layers of the ensemble peel away like film leaving only the flutes to state an autonomous and tonal melodic phrase using the *yō* scale of *gagaku* and *shomyō*—though it is only three seconds, it is perhaps one of the most definite and austere melodies of the whole piece. The transience of this clarity resonates with a quote from Murata Jukō (1423-1502), who was credited with founding the tea ceremony in Japan, included in a Muromachi period aesthetic doctrine for *Nō* drama in which *yūgen* is fundamental: "The moon is not pleasing unless partly obscured by a cloud" (Varley 1989:197).

[42] m. 174

From SU 83 (9:44) through SU 86 (9:53), the layers of the ensemble melt away; the upper and lower frequencies zipper together, coalescing into the lone flute, disintegrating into nothingness. Another silence follows, and then the *shō* returns as before, again returning to silence. The harp then strikes again, leaving the flutes hanging on a note in a way which mimetically resembles the opening gesture of the piece. This time, however, the *ryūteki*-like texture is about to reach its full realization in a "solo" for two flutes. Whereas before, the texture was *ryūteki*-like for reasons of timbre, a quality of "doubleness" and some small gestures, here entire phrases are autonomously stated, more absolutely mimicking the *ryūteki*. From SU 91 (10:17) to SU 97 (10:57)[43], as if the fog-like veil of the ensemble has been partly lifted, this *ryūteki* solo emerges between ample silences, idiomatic to the instrument. It is joined only by subtle contacts of the rake. In SU 94[44] a clearly defined melody idiomatic of the *ryūteki* emerges. The instrument then begins to involve in ways impossible for the real instrument, manifesting a mysterious affect. It travels through various variegated forms in an interplay with the rake for the rest of section [C]—sometimes, it feels like a temporal elongation of the rake and *ryūteki*-like pair of actor and acted-upon that the piece opens with. After fading into silence, this section is punctuated with the final instance of the *shō*, and another pause and silent void.

Section [D] captures memories of previous sections and re-animates them anew. It is perhaps like taking one final circuit around a garden to impress the scenes onto memory. The first gesture of the rake exciting a dense, steady and quiescent yet ever-modulating texture in the rest of the ensemble mimics the affect of section [B]. This mood lasts from SU 109 (12:31) till SU 117 (13:34). The next sub-section hearkens back to section [A]. The opening gesture of the harp

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[43] m. 210

[44] m. 201

is prolonged, yet out of its attack emerges the high, pure, yet still *ryūteki*-like texture of the piccolos (having just switched back from the flutes). SU 120 through SU 130 (14:04—15:40) is much like the moments of section [A] and [B] where (like here) the winds hold a steady note, where ephemeral breaths of sound are subsumed into one nearly endless whisper. Approaching SU 130 (15:29), the sounds seem stretched far longer, and processes seem to slow. The layers here peel off too, leaving only an echo of a flute sounded, as it were, by the rake. And then at SU 131 (15:57), two *gagaku*-esque calls, mimicking the characteristic, microtonal scoop up of the *gagaku* ensemble, come as a surprise. It is unclear if there will be a new section—indeed, in my misty memory of the piece, of the sea of equivocal constancy that characterized its sound, I cannot say how much time has passed. After a brief silence, the rake strikes gently—the breathy piccolos atop fade "like clouds into an empty sky."

4. Close Analysis of mm. 1-9 of «Recueil de pierre et de sable»

At the beginning of section [A], we hear first the sound of the super-harp lurching forward, veiling (or prompting) the emergence-from-nothingness of the piccolo flutes, and decelerating to rest. The notation Fineberg creates this "lurching" effect through the immediate deployment of metrical irregularity, as seen in Figure 9. Nothing happens on the down beat: then, after a sixteenth-note of rest, Harp II (with all strings tuned a quarter-tone flat) sounds a sforzforzando A4 3/4 flat. This begins a polyrhythmic interplay of nested tuplets between the instruments that

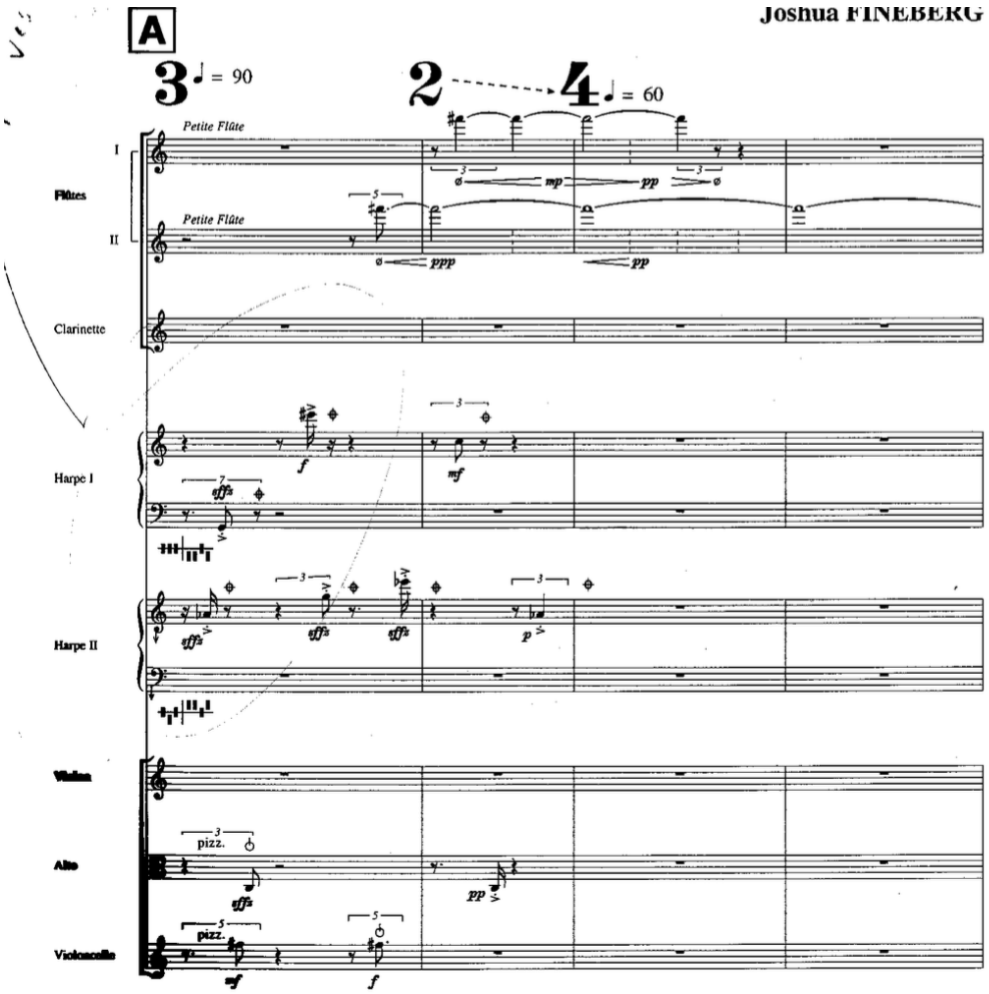

Figure 9. mm. 1-4 of «Recueil de pierre et de sable»

make up the super-harp (including in this moment the viola and cello, which play pizzicato and so closely mimic the timbre of the harps). It is a gesture which I hear as a temporally free-floating rhythmic density. The rhythmic distances between notes become incredibly small, to the extent that they only barely avoid perception as simultaneous; and in this way, this rhythmic and timbral texture pushes the perceptual limits of our the 1/10-second scale *identification* of elementary sound events perceived as non-simultaneous (Chagas 2014:50). After the A4 3/4 flat of harp II, harp I frames the ultimate bounds of the register this short musical unity of the super-harp, playing an G2 natural in the lower register and an E6 sharp in the upper. I start to experience, on the second-order scale, the first semblance of *relaxation* and *affect* settling in at this point, as this highest E6 sharp of harp I of the super-harp "lands" on the F5 3/4 sharp[45], the second pitch sounded by harp II. This melodic movement occurs as a gestural "landing" or completion of the momentum of the initial, asymmetrical polyrhythmic burst of the super-harp's "teeth." It is ultimately realized as an affect of "landing" as the rhythmic density of the "teeth" decreases from the last beat of m. 1 onward, the tempo begins to decelerate from q=90 to q=60, and the super-harp finds rest and musical unity by returning to the same pitch, A4 3/4 flat, on which it began.[46] But meanwhile, responding to this settling as it happens, the piccolos have already become audible, extending and carrying us beyond the initial musical gesture and short musical unity of the "rake."This is a suspension and reorientation of *transparency*—it marks a shift in its affective tonality. The emergence of the piccolos is a vague, in-transient suspension of sound in the empty

[45] For reasons of closeness, I analyze this as F5 3/4 sharp, although it is notated as a G 1/4 flat.

[46] Although it is beyond the scope of this analysis to consider this, it interesting to consider how such playing instructions and engraving techniques may inform the interpretation of this piece by an ensemble. Precise decrescendos and frequently changing meter may have interesting psychological effects in performance. Related to this, it is important to note that in a spectral piece of music such as this, the rhythms are nearly impossible to perfectly realize—whereas Fineberg here uses precise notation, perhaps for universal clarity, other composers such as Murail often notated rhythmic densities using graphical notation techniques.

spaces of acoustic decay between the transient, percussive sonic envelope of the strings of the "super-harp." The only simultaneity that is notated during these initial short unities occurs on the third partial of the quintuplet on beat three between the piccolo II and the cello. Piccolo II plays an F7 1/4 sharp "as quietly as possible (if possible, without an attack)," as indicated the articulation "ø"; the cello delivers a snap-*pizzicato*, *fortissimo*, F5 sharp. For psychoacoustic reasons relating to what are known as "overtone partials" (which I will return to in greater depth shortly), the F7 1/4 sharp of piccolo II may be initially automatically *identified* as a part of the sound of the "super-harp" or "rake." Very shortly, however, it finds autonomy as a sustained sound; yet at the same time, because of the in-transient nature of its onset, and then the equally in-transient attack and "harmony" with piccolo I playing the only a quarter tone higher, the source of the sound resists classification. It emerges (for me), at once as "sand" and as *ryūteki*-esque, on a continuum, contingent with the super-harp; it is the signified set into motion by the musical gesture of the rake reaching a peak and decelerating. Finding autonomy, this pairing of piccolos evolves to constitute a whole short temporal unity in and of itself, and ultimately comprises the majority of the first second-temporal level segmentation of «Recueil de pierre et de sable».

Though we have only thus far considered the first nine measures of the piece, there is already very much to unpack and analyze more closely. Luckily—and perhaps also surprisingly—the baggage of these first short temporal unities elucidate musical signs and compositional techniques that appear again and again in variegated yet recurring ways throughout the whole of «Recueil de pierre et de sable». So, through careful and rigorous consideration of the fundamental elements of the piece as they appear, the whole of the piece will reveal itself more clearly. For organizational clarity, I have divided the parameters of interest touched upon so far into sub-

headings of this section: (a) the "super-harp" as a rake and its, psychoacoustic, aesthetic, and semiotic dimensions; (b) the piccolos' double role as "*ryuteki*" and "sand"; and (c) summary of the constitution of Zen affect in these bars.

a. The "Super-harp" as a Rake: Its Psychoacoustic, Aesthetic, and Semiotic Dimensions

I suggest that the "super-harp" of the two harps (and, in this instance, the viola and cello as well) is an object which, through some imaginative work, may function as an icon of an abstract, metaphorical "rake." It is, for me, an icon for "rake" (or perhaps more specifically, the type of rake used in Zen gardens) in so far as it as a music-object has qualities of Firstness that form the basis of its resemblance to a rake: this "rake" is one that creates aural textures in the time-constituting timbral, pitch, and loudness dimensions of sound, like a Zen garden rake creates visual textures in the three dimensions of physical space as it moves in time. It is illuminating to consider these signs on the level of Firstness through the analytical lens music theory, and interpret them abstractly through the general rules of Thirdness through perspectives such as psychoacoustics. However, it is important to remember that because these perspectives operate using metaphors such as spectral analysis through FFT and symbolic musical notation, they do not bring us any closer to the Secondness of the music-object as *directly experienced*—so, these analyses are best left until after this attempt at writing a phenomenology of the sign in its experiential immediacy. Without the ostensible resemblance of the "rake" icon on the level of Firstness, the sound object could not function as an icon at all. The same logic applies for each and every subsequent analyses of icons. And so consequently, it would lose the direct, existential connection to the physical world that especially characterizes icons (Turino 2014:192).

The Firstness sound-events on the smallest temporal scales of identification are the starting point of a gestural "rake" icon that I may imagine when listening to this piece with intentionality and deep attention. Each transient attack may cause, through repeated experience and inkblot function-type imagination processes, an iconic, token-type association on the first level temporal scale of *identification*, corresponding to the affective level of *emotion* (i.e., "the awareness of a tonal shift that is constitutive of the living present" [Chagas 2014:51]). In my so-called "emotional" awareness of the perception of the sound-object/event of a transient pluck during its running-off to the immediate past of auditory experience, I observe that the sound presents itself to me with a certain timbral texture that I instantly identify in general as "plucked strings," and more specifically—if only because the program, score, and past experience has taught me as much—as the sound of a harp, perhaps imaginatively in the act of being plucked by a fingernail. As the next sound-objects sound, I note that if I direct my attention towards how I imaginatively generate new signs in the living present, I may realize that I can imaginatively extend my metaphors beyond the qualisign of fingers plucking a string. I imagine that the short scale, asymmetrical, and humanly impossible gesture of the harp's climax, landing, and fading-off, as being *produced* by bamboo teeth of a rake; perhaps as if literally drag across the harp; perhaps abstractly, as if in contact with some imaginary, dynamic object. Because of the intimately spatial nature of the sign of a rake on sand, the perception auditory phenomena may unfold into the virtual sensation of the presence of spatial depth. As if excited into resonance by contact with the sound-object/event of the "rake" coming into contact with a particularly "surprising" or "large" (i.e., loud) object (i.e., the F5 sharp at the end of m. 1 considered above), the piccolos emerge as if via causation, as if the sounding board of the rake, thereby taking on iconic and indexical qualities of the "sand" of the dry landscape garden. The unstable texture that results from

the interplay of the 1/4 tone detuned harp with the harp at concert pitch further contextualize this iconicity by themselves being (however vaguely, as of this point) potential icons for qualities (qualisigns) of the legisign *wabi*, such asymmetrical harmony and material insufficiency (Weiss 2010:91) (Kōshiro 1989:195). This qualitative, self-reflexive, phenomenological and semiotic account of my experience of this first small-scale temporal unity of «Recueil de pierre et de sable» illuminates my private, imaginative experience, and puts it in the logical framework of Peircean semiotics. My initial account of the symbolic musical notation of this section revealed *what* instruments, articulations, formal structures, rhythms, harmonies, and melodic gestures contributed to this private, affective, imaginative experience which characterizes the opening of the piece. However, as of yet I have only briefly touched on the ways *how*, on the psychoacoustic level, objects and signs interact to create an affective tonality of “Zen-ness." For my purposes here, I explore my apprehension of the "Zen-ness" of the super-harp/rake in particular as being based on timbre, attack, as well as pitch and relative intervalic consonance and dissonance.

The perception of timbre is a fundamental attribute of auditory processing and musical experience (Hajda 2007:251). As early as the late 1930s, the famous music psychologist Carl Seashore recognized that timbre was the most important of the four major perceptual attributes of tone (pitch, loudness, duration and timbre) (ibid). The term encompasses a complex set of auditory attributes as well as many musical and perceptual attributes (Deutsch 2013:36). In his article, *Musical Timbre and Perception*, Stephen McAdams describes two broad characteristics of timbre that contribute to the perception of music (ibid). According to McAdams, timbre is

> (1) a multitudinous set of perceptual attributes, some of which are continuously varying (e.g., attack sharpness, brightness, nasality, richness), others of which are discrete or categorical (e.g., the “blatt” at the beginning of a sforzando trombone sound or the pinched offset of a harpsichord sound), and (2) it is one of the

> primary perceptual vehicles for the recognition, identification, and tracking over time of a sound source (singer's voice, clarinet, set of carillon bells) and thus is involved in the absolute categorization of a sounding object.

Ultimately, timbre is an important vehicle for source identity (Deutsch 2013:35). Given the orchestration of the piece, I easily identify a harp-like timbre from the very first notes of the piece. Psychoacoustic studies show that excising the attack portion of a sound instrument markedly decreases identification of that sound, suggesting that attack plays a critical role in the association between a sound and a source (ibid.:47). It is clear from the attack onset—in other words, "a transient part of the signal that lasts from onset until a more-or-less stable periodicity and modes of vibration are established" (Hajda 2007:252)—that is, through repeated experience, a vivid and obvious index for the sound plucked strings. In Varela's terminology, this identification of attack is related to the first, 1/10 second scale of immediate sound identification. This is part of the reason why the sound of the string of a harp may iconically signify a rake: on an abstract level, both, through physical contact, may sound acoustic phenomena with transient attacks. This is also how Fineberg is able to briefly incorporate the viola and cello into the "super-harp." (To be sure, however, more often than not, in «Recueil de pierre et de sable» the "super-harp" macrotimbre is created by only its constituent harps).

In creating his "super-harp," Fineberg creates new timbres through orchestration. McAdams notes that "the creation of new timbres through orchestration necessarily depends on the degree to which the constituent sound sources fuse together to blend or create the newly emergent sound" (Deutsch 2013:49). He cites a study by Sandell (1995), who proposed three classes of perceptual goals in combining instruments (ibid). These are (1) *timbral heterogeneity* (keeping timbres distinct or heterogenous), (2) *timbral augmentation* (the embellishment of one instrument by another, domineering instrumental timbre), and (3) *timbral emergence* (the appear-

ance of a new sound identified as none of its constituents). All of these classes become important in the piece. However, primarily of interest with regards to the "super-harp" is the property of *timbral heterogeneity*. Blend, notes McAdams, depends on acoustic factors such as onset synchrony of constituent sounds and—more specifically related to timbre—the similarity of attacks, the difference in the spectral centroids, and the overall centroid of the combination (Deutsch 2013: 49). Studies such as Sandell (1989) have identified what may be known as a "blend space" for musical instruments. This "blend space" can be obtained through a technique in psychoacoustic investigations of timbre known as multidimensional scaling, where the two dimensions of attack time and spectral centroid are scaled on a graph produced through controlled experimentation with test subjects (ibid.:37-41, 49).[47] Sandell's study suggests that the more similar that the parameters of attack time and spectral centroid are for two combined sounds, the greater their blend. Because the "super-harp" is in general created by two harps, one of which is detuned by a quarter tone, it is to be expected that the timbre of the harps are incredibly close within this musical context. Fineberg also plays with this blend-space prominently in creating the "sand-like" textures of the ensemble "triggered" by the harp, which I consider shortly.

The two harps do not merely interact with each other. They effectively form a gestalt; each depends on the other for the cohesion of musical phrases. This phenomena of connecting sounds similar in pitch, loudness, timbre, and spatial position to a single sound source and into a coherent "message" (such as the message I perceive as a "sweeping gesture") is sometimes referred to as auditory stream integration (Deutsch 2013:50). Taking only the tones of Harp I and putting them out of context, however, there is little of musical or semiotic interest—there are no "impossible" densities of nested tuplets or gestural sweeps. Indeed, although the "super-harp"

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[47] For more information on how parameters of "timbre-space" are quantified in psychoacoustic experimentation, see McDaniel's chapter in *Perception of Music* (ed. III) (2013).

sounds a total of 11 notes during these opening four bars, only three of these notes come from Harp I. This leads to the next important dimension of the super-harp: the effect of the micro-interval detuning, and the affectional evocation of spatiality. By detuning one of the harps by half of a semitone, an uncanny dissonance or roughness between the two harps is created. Between each other, the harps are unable to combine to create an absolutely consonant, nor an absolutely dissonant sonority. The usage of microtonal intervals is a common component of spectral music (Fineberg 2000), but microtonal intervals are certainly not a major element of Western music practice overall. As a musically trained American listener, I clearly hear the harp as being detuned, though I would struggle (and most likely fail) to identify the precise microtonal interval. Instead, what I hear more of is a type of dissonance of "roughness," that Helmholtz suggested may be related to beats (Deutsch 2013:24).

Each frequency component of what is perceived as a unified tone is known as a *partial*. The combination of *partials* in part constitutes the timbre of a note, as touched upon just above. The spectrogram of «Recueil de pierre et de sable» clearly shows the partials of its complex tones. William Forde Thompson describes roughness in *Music Perception* (2013):

> the concept of roughness can be extended to combinations of *complex tones*, with the total amount of dissonance equal to some combination of the roughness generated by all interacting partials. When tones with harmonic spectra are combined, consonant intervals such as the octave and fifth have many partials in common, and those that are unique tend not to occur within a critical band and hence to not give rise to roughness. Complex tones that form dissonant intervals such as the diminished fifth (six semitones) have few partials in common, and some of their unique partials fall within the same critical band, giving rise to beating and roughness. (ibid.:112)

We can see the upper partials of the instruments in «Recueil de pierre et de sable» clearly in the sonogram. Briefly the *ryūteki* of SU 2, which I described as "pure," note how there is only one frequency visually prominent. This is because the single piccolo, especially as it is articulated in this recording, is not complex tone. The dissonant, microtonal interval between the second piccolo in SU 3 represents a phenomena where the standing-waves of these two piccolo-produced pitches combine in a way that emphasizes upper partials, creating beating and "roughness." In the same way, the micro-intervallic interactions of the harp give rise to this quality of "roughness" by giving rise to high-frequency beating in the upper-partials as well as fundamental frequency (i.e. lowest frequency identified with pitch) of each tone.

The beating of harmonically close fundamentals and upper partials resultant from close, microtonal groupings results in a "roughness" and a texture on the precipice of, but always denied, absolute consonance. Many Japanese instruments such as the *ryūteki* have complex overtone profiles, which contribute to a "roughness" or "nosiness" and an ambiguity of pitch. For reasons such as this, in «Recueil de pierre et de sable», harmonic "roughness" becomes for me iconic of *wabi*, described D.T. Suzuki as "transcendental aloofness in the midst of multiplicities" ([1959] 2010:22). Fineberg uses quarter-tone harmonies that create an unfamiliar and texturally dynamic, *wabi*-like atmosphere prominently elsewhere in the piece, such as in the prolonged drone that characterizes section [B], which is built by a G2 double sharp from the cello, an F natural from the viola, and a double-stopped G4 quarter sharp and A4 natural from the violin. As sections such as these elapse, the unsettling roughness and constancy takes on a paradoxical double quality which I have been hinting at. There is both stability (in the assurance of the continual drone of the pitches, for instance) and instability (in the micro-micro level fluxes that constitute beating and roughness). I am reminded of Kōshiro Haga's definition of *wabi*,

where "a higher dimension of transcendent beauty is created by the dialectical sublation of an inner richness and complexity into the simple and the unpretentious" (Varley 1989:197). Here, there is a continuum of equivocal yet complex timbral homogeneity which, per its unpretentious or unrefined sonic roughness, is sublimated into a texture that becomes an iconic signifier for, and thus creates an affective tonality of, *wabi*. In this way, it creates a "higher dimension of transcendent beauty" which resists simple definition and is greater than the sum of its parts.

b. The Piccolo's Dual Role: *Ryūteki* and "Sand"

In the beginning of the previous section, I discussed how signs operate in context such that, through an inkblot function iconic process, I may experience the sound of the "super-harp" as a rake. Earlier still, I discussed how the piccolo section emerges like "sand," as if a pattern or form set into motion through contact with the "rake." Like the last section, I begin with a brief description of my hearing of these tones and the signs which I interpret and experience.

I hear the rake sweep across something; the sharp attacks send off rhythmically disjointed and fractured sounds like scattering pebbles—I try to follow their trajectory throughout the gestural motion of the harp, only to find the notes "land" like pebbles finding rest and stillness. As I focus on the trajectory of the "settling" or "landing" of the notes, a new sound of a vague origin emerges. Where does it come from? It is a pure (i.e. non-complex, almost sinusoidal) tone—although I cannot tell what specifically is making the sound, I experience a vague moment of dissonance that smoothly coalesces into a pure tone. The textural dissonance is, but for a moment, feels gnarled and almost unsettling, but the relaxation of tension is somehow satisfying. The pure tone sustains itself, and suddenly, the timbre points me to Muromachi Japan. A vague sense of the sharp yet gnarled quality of the transverse flutes of Japanese *gagaku*, and other such tradi-

tional styles echoes in my memory. Because *gagaku* pieces always start with a solo *ryūteki*, my orientation towards a "Japanese" and "Japanese aesthetics" indexical cluster is reinforced. Unthinking, I map this remembered sensation onto the sound I am hearing as I am left with it in autonomous isolation. The tone continues—I follow it until it fades off into silence, sounding far longer than the brief gesture of the harp. it too feels like the trough of a wave left trailing behind the rake (Figure 10).

Figure 10. Lines in a *karesansui* at a sub-temple of Daitoku-ji in Kyoto, Japan.

As I settle into the note, there is time to cogitate on these now-receding impressions. The most vivid of these impressions come from an indexical cluster in my mind which is of an imaginary pre-modern Japan. Even though I am aware of the historical disconnect, for a whole host of ostensible reasons (not the least of which I assume is my own individual context as a young Caucasian American and my typical susceptibility to such pre-modern imaginaries of Japan), it signifies a timeless and palimpsestic gestalt—it is, in a sense, an exotic, metonymically "traditional Japanese" feeling. In this way, this piece re-articulates and reinforces such ahistorical senses of pre-modern Japan. I cannot speak for how Fineberg himself accounts for this conflation—perhaps he had calculated motives, or simply liked the sounds (though for at least the flute, he could have referenced similar sounds from the *nōkan*, a closely related transverse flute used in *Nō* theater). Perhaps it's related to the history of Western classical musicians referencing *gagaku* (German composer Karlheinz Stockhausen [1928-2007] famously referenced *gagaku* in his composition *Telemusik* [1966], conflating it with sounds like bells from Japanese temples). For many people, I

imagine that the conflation is indeed curious, if not jarring—for others, this has perhaps become par for the course of expectations for narratives and imaginings about places in history that we are all at least temporally disconnected from. In my individual listening, these references function effectively at least to the extent that they play into—or at least don't challenge—my culturally ingrained expectations. Yet my cognizance of this dissonance is also manifest as an incessant artifact of the transcultural and global circulation and alteration of not only Zen thought, but of narratives of Japan in general. To echo my address of Suzukian Zen, this does not direct from the realness of the impact and potency of these transcultural imaginaries for those who are moved, inspired, and sometimes transformed by them, but it in the interest of providing a holistic account of the semiology of this piece and its ostensible functions in as broad of a context as possible, this point cannot be overlooked.

As a sound object, the piccolos, as well as subsequent orchestrations of sand through the ensemble, have salient qualities of Firstness that let them function via imaginative iconic processes. The linkage between the super harp—or the teeth of the rake—and the piccolo—sand like a sounding board—is apparent upon close analysis of its sonogram. As pointed out above, the coincidence of piccolo II and the cello is the only moment of this opening where rhythms/beats coincide: on the second subdivision of a quintuplet, Piccolo II plays an F7 1/4 sharp "as quietly as possible (if possible, without an attack)," as indicated the articulation "ø" and at the same time the cello delivers a snap-*pizzicato*, *fortissimo*, F5 sharp. The piccolo II sounds, in-transient and vague, as the sounds of the harp recede into the near past. As adumbrated above the emergence of piccolo II has an ambiguous quality in part because of the phenomena of overtone partials. In Figure 11, the fundamental frequency of the piccolo is represented by the horizontal line between 4kHz and 2kHz. Recall that the clever use of color intensity in a sonogram represents the ampli-

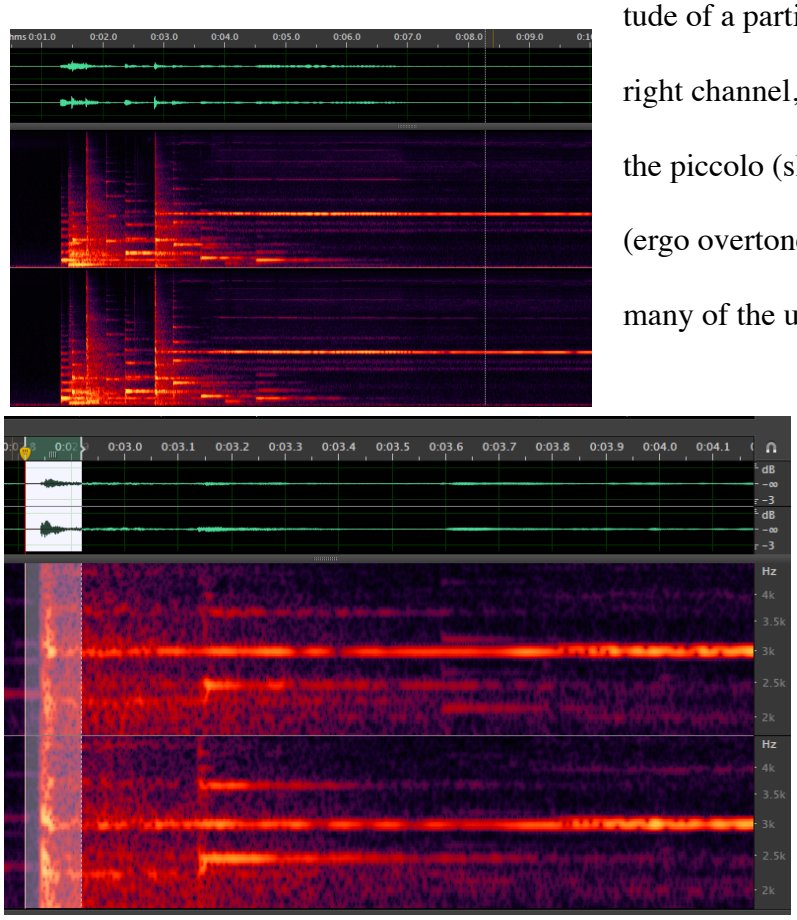

Figure 11. Emergence of piccolo II from overtone partials of cello, "super-harp" at two different temporal scales.

tude of a particular frequency. Especially in the right channel, at the coincidence of the cello and the piccolo (slightly before 0:03), due to the noisy (ergo overtone-dense), *snap-pizzicato* attack, many of the upper partials of the cello's snap are visually apparent. Though I perceive a unified tone, upper partials of the snap are visually apparent up until around 4kHz.

Forde Thompson remarks that partials that are harmonically related tend to become fused (Deutsch 2013:114). Parameters such as onset and offset characteristics contribute to this fusion.

The F5 sharp and the F7 1/4 sharp *almost* share a fundamental frequency. A trained ear especially, however, will experience that this is not a perfect, octave consonance—at least not immediately. This results in beating, subtle and rapid oscillations in amplitude which contribute to the "roughness" of the sound. However, a perfect consonance with this interval is created by the brief appearance of piccolo 1 in mm. 2-3. For reasons of timbral homogeneity (among other important acoustic parameters), however, it is not only unclear what the sound source of the tone is, but also whether it is one instrument or two sounding. Although this is not the ultimate realiza-

tion of the *ryūteki* texture attained in section [C]. This effect nonetheless emulates the "doubleness" of the *ryūteki*.

Looking carefully, an upper partial of the *snap-pizzicato* F5 sharp from the cello seems to be very close to the fundamental frequency of the F7 1/4 sharp from piccolo II. This is not surprising. At A=440Hz, the fundamental frequency of an F#5 is approximated around 739.99 Hz.[48] It would then have upper partials at approximately 1,480 Hz, 2,220 Hz and 2,960 Hz. The F7 1/4 sharp of piccolo II is notably close, at approximately 2,875.69 Hz. As beating of these relatively close frequencies contributes to a texture of "roughness" and preambles the cultivation proper of a *wabi* affect, the crescendo-from-nothingness of the onset of piccolo II partially veils the perception of this transient dissonance. And by obscuring its attack, it becomes surprisingly difficult to identify the sound source of the tone as the piccolo. This effect can be in other words categorized as a *timbral emergence*, where a new sound results that is identified as none of its constituents. In sum, parameters of the amplitude, constituent overtone partials, and rhythmic placement of the snap of the cello contribute to the obfuscation of the source of the piccolo; and the effect of this is a phenomena of vagueness which is developed in variegated ways throughout the piece. Piccolo II proceeds to play with very little vibrato, which studies show is an important element of sound source identification (Deutsch 2013:46-47). Piccolo I then joints in—notably, crescendoing from nothingness from the 2nd beat of a quarter note triplet in measure 2, with no obvious metrical accent—playing an F7 full sharp, sustaining the roughness effect of the beating between the partials around 2,960 Hz. This is an effect of what McAdams describes as *timbral augmentation*, touched upon above, and creates the *ryūteki* effect. The oscillations in amplitude, a component of beating, are further modulated by the *crescendo* and *decrescendo* of piccolo I,

[48] I take these frequency approximations from Fineberg's *Guide to the Basic Concepts and Techniques of Spectral Music* (2000:83).

emphasizing the F7 full sharp over the F7 quarter sharp. Looking closely at the sonogram, this period of tension is just over 3 seconds, roughly the same length as the gesture of the harp. During these few seconds of dissonance, piccolo I continues to slightly crescendo, creating a paradoxical consonance with the just-sounded/now-fading cello F5 sharp and its overtones, and rough, beating, dissonance-but-near-consonance with the F7 quarter sharp of piccolo II. As notated, piccolo I then *decrescendos* into silence; but as perceived, it is as if a moment of instability in a single source of sound settles and finds an autonomous resonance.

c. Summary of Chapter IV Section 4

In «Recueil de pierre et de sable», Joshua Fineberg immediately presents a palette of signs, made manifest with a correspondent palette of compositional techniques, which create an initial and enduring affective tonality of "Zen"ness encapsulated by the piece. Compositional elements such as fluctuations of rhythmic density evoke an asymmetrical, "organic" quality of the aleatory. Drawing on elements of *gagaku* music, Fineberg creates (for me) an indexical cluster of pre-Modern Japan(—yet as discussed above, although it does not largely effect my relatively culturally and experientially disassociated listening, this becomes an apparent artifact of transcultural notions of "Japanese-ness" and "Zen-ness" in general). Timbres are blended to create new, emergent instruments greater than the sum of their parts—for instance the super-harp and the double-piccolo—*ryūteki*-esque sound—evoking a mysterious, *yūgen*-esque atmosphere. Closely clustered microtonal intervals contribute to roughness through the constructive emphasis of overtone partials, creating transient, illusory timbres, invoking spatial imagination and creating a sense of *wabi*, an atmosphere which is reinforced by the "roughness" is iconic of similarly

"rough," overtone-dense *yokobue* Japanese flutes such as the *ryūteki* and *nōkan*. The elements which my analysis has highlighted up until this point recur in variegated ways, but the semiotic and musical theoretical principles around which they operate become fundamental to the various later manifestation of these elements. It may be helpful here to recapitulate and enumerate what I have identified as the distinct, recurring elements thus far.

Specifically, I first wrote with regards to the concept of the aleatory in the context of the iconic form of the piece. I referenced Weiss, who remarked that the importance of the aleatory to Zen inspired aesthetics is not to create a pure chaos, but rather is the highly controlled, meticulous of chance—or, in the case of «Recueil de pierre et de sable», perhaps the *sensation* of chance—in order to create a salient tension between the "finite though indeterminate materiality of the microcosm" and the "infinite and ineffable formal complexity of the macrocosm" (Weiss 2010:89). Thus far, I have observed that Fineberg utilizes compositional techniques of absolute time, where rather than restraining himself to the metrical accent patterns more typical of notated WAM, he employs complex, asymmetrical rhythmic densities that defy regularity but are entirely satisfying for their "organic" gestural quality. It is an "organic" quality in so far as these rhythms are able to maintain a high degree of felicity to psychoacoustic perception and the rhythmic contours of natural phenomena through techniques such as beat quantization. The next element that I touched upon in section was how the super-harp functions semiotically as an icon of a rake, and how imaginative processes about this rake can carry over and influence perception of other elements of the ensemble. I discussed how the semiotic processes related to perception of musical timbre serve to reinforce these signs, and how this metaphor may develop dynamically throughout the course of listening. Although I have only considered one instance of the super-harp thus far, to reiterate, the logic of the semiotic constitution of the rake icon basically holds true for its

later appearances. Intimately imbricated with these two elements is the compositional technique of *timbral emergence* as described by McAdams. Fineberg utilizes auditory phenomena such as overtone partials and the interplay of sharp and silent attacks in order to variously dovetail and veil the waxing and waning of various sounds on a smooth continuum of acoustic processes. This tension between irregularity and a continuum of processes may contribute to an affective atmosphere of *yūgen* that I hear throughout the piece. My descriptive account of hearing this piece attempted to describe how aleatory and effects of auditory continuums through techniques of timbral emergence elements can be understood through this aesthetic principle.

I then considered the "roughness" created by the acoustic phenomena of beating and overtone partials. This contributes to a "rough," "irregular," and somehow "imperfect thus beautiful" quality, at least as I hear it. Within the indexical cluster created by orienting my analysis and listening around the central metaphor of a Zen garden—and as I invariably perceive an indexical imaginary and palimpsestic sign of pre-modern Japan in the *ryuteki*-iconic sonority in the piccolos of the opening and especially the flutes of section [C]—the rough irregularity of the frequencies beating on the precipice of invisibility cultivates a *wabi* affect. This timbre occurs at the very beginning of the piece, also becoming iconic of *gagaku*, since *gagaku* always opens with the sound of a *ryūteki*. Finally, I briefly touched upon how the two piccolos are combined through *timbral augmentation* and adumbrate later miming of the *ryūteki* in section [C].

To conclude my analysis, I elaborate on the *ryūteki* and the *shō* orchestral syntheses. I focus specifically on how I perceive them as indexes of traditional Japanese arts which (for better or worse) consistently reinforce the semiotic interpretation of sign—object interactions within the circulation of signs of Zen. Perhaps even more-so than the imaginative, iconic processes via the inkblot function which we have considered more in depth thus far, these indexes of Japan are

fundamental to the constitution of an explicitly Zen affect in this music, if only because they overtly (though not historically) signify Japanese arts as a gestalt in a way which sounds less indexically potent in the West do not.

5. Analysis of the *Ryūteki* and *Shō* Signs

Both the *ryūteki* and *shō* simulations become salient indexes in this piece. Although the *ryūteki* texture is hinted at at the beginning of the piece, as I have shown, it is not fully realized until section [C]. Section [C] is also characterized by the intermittent presence of the *shō*, which Fineberg links symbolically with the boulders atop the sea/void of the Zen garden, making it a semiotically important section. He writes,

> At three pivotal points, the ensemble recreates through orchestral synthesis the sound of a Japanese mouth organ called a *sho*. The specificity of these three moments could be thought of as somewhat akin to the boulders encrusted in the sand/ocean of a Zen garden. (2006:121)

The first instance of the *sho* orchestral synthesis can be found at measure 167. The sonograms shown in Figure 12 compare features of the sonogram of «Recueil de pierre et de sable» on the left to an example from a *shō* in a *gagaku* context on the right.[49] I find the auditory and visual similarities between the two to be striking. Before moving on to investigate how this effect is created by the ensemble, let us first turn to the sonogram. The sound of a real *shō* seems to me to be characterized by gradual, linear, dynamical emergence of resonant upper partials, which fade off with a similar shape. This linear quality is clearly seen in the onset of the upper partials in the

[49] The *gagaku* example comes from a 2001 recording of Kunaichō Gakubu (the name of the ensemble) included in the album "Gagaku - Etenraku / Azumaasobi / Kishunraku / Seigaiha" released on King Records in 1990, and is called *Ōshikichou Chōshi*.

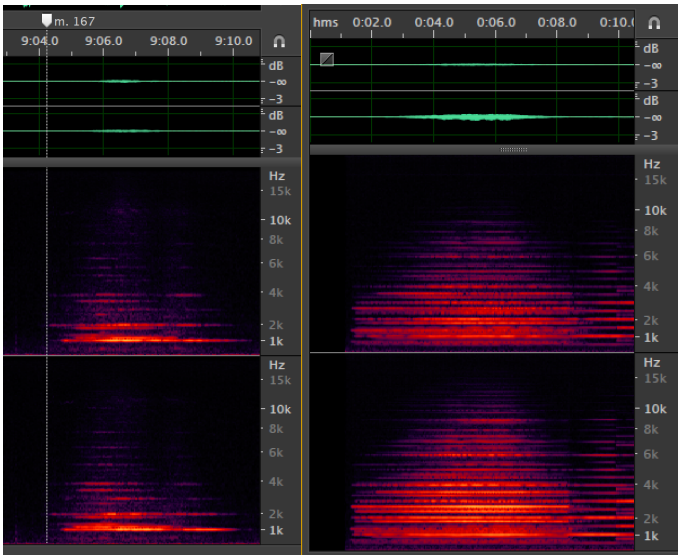

Figure 12. Sonogram of s*ho* synthesis at m. 167 of «Recueil de pierre et de sable» (left) vs. sonogram of a solo *shō* in a *gagaku* context.

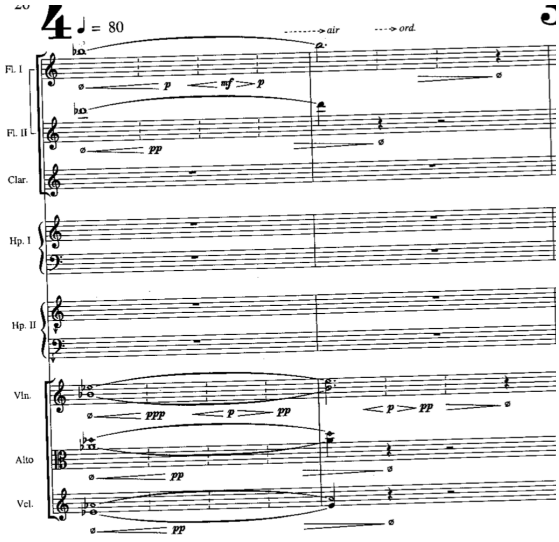

Figure 13. Notation for the synthesis of the *shō* texture.

sonogram. Although it is less marked on the sonogram, a similar triangular pattern of linear onset and linear offset of upper harmonic partials can be observed. The similarity is even more uncanny when heard. Overall, throughout the course of section [C], we hear the sound of the orchestrally synthesized *shō* three times in isolation, as Fineberg has pointed out. The first instance, considered above, is stated from mm. 167-172. The next instance is from mm. 188-189. Its final sounding occurs from mm. 249-250, which fades off to a 3.25 second silence that punctuations section [C].

Figure 13 shows how the instruments in the ensemble are instructed to play in order to create this effect. Note how all of the constituent instruments—the flutes (no longer piccolo), violin, viola, and cello—begin on the downbeat of the measure. At this point, the strings are all playing with lead practice mutes attached to the strings. The strings all play touched harmonics, which result in a pitch two octaves higher than the fundamental. Because the winds (and flutes especially) have a simple waveform, as do the strings (thanks to the use of harmonics and the

lead practice mute), they lend themselves well to this sort of timbral augmentation while also closely approximating the harmony of chords produced by a *shō*. The illusion is reinforced here, too, by the attack being masked by a gradual crescendo from near-silence. The violin sounds a B flat 6; the viola, an A flat 6; and the cello, an E flat 5. Flute I sounds, as notated, a B flat 6, doubling the fundamental of the violin; Flute II sounds a D flat 6. The notes used to make up this sound build a chord which is idiomatic of the *shō*.

After the *shō* appears for the first time in section [C], the *ryūteki* is finally properly realized. Like the *shō*, it is helpful to begin analysis by recalling the description provided by Fineberg in his book.

> The piece also uses what I would describe as behavioral models in the central solo for two flutes (accompanied by the harps). For this solo, I analyzed a Japanese flute called a *Ryūteki*. This flute is basically a tube (like all flutes) made of smoked bamboo, but it has a small lead tube with a different diameter between its head joint and its body. The story is that a flutist broke his flute on the way to the concert and had to repair the flute quickly, producing this instrument. Anecdotes aside, this flute has a very strange doubleness to its sound because the oscillating air (called "standing waves") in the two tubes with different diameters and lengths interfere and interacts with each other. The way this doubleness occurs is very specific, yielding certain intervals in its spectrum and producing certain melodic configurations when a flutist changes pitch by increasing the force or speed of his or her breath. In the central solo for the two flutes, I mimicked this behavior with two Western flutes. Though many of the gestures and sounds these flutes communally produce come straight from Ryuteki analyses, I could take this "instrument" into speeds, registers, and harmonic areas a real Ryuteki, with its more limited key system, could never go. (Fineberg 2006: 121-122)

Along with the *shō,* the *ryūteki* is a fundamental component of *gagaku* court music. Many *gagaku* pieces include sections where the *ryūteki* plays solo, and as noted above, *gagaku* pieces always begins with a *ryūteki*. In these sections, the instrument often sustains notes for a relatively long period of time, much like we hear in its signification in the opening moments of «Recueil de

pierre et de sable». Figure 14 shows a comparison of sonogram of the *ryūteki*-like opening to a *gagaku* piece called *Kishunraku No Jo*[50] (top) and the first short unities of «Recueil de pierre et de sable» (bottom). Although this is not the ultimate realization of the *ryūteki* that occurs in section [C], there are quite a few points of insights to be gleaned from this comparison. As an opening to the piece, the piccolos are, to reiterate, functionally iconic of the opening of a *gagaku* piece. It also exemplifies just how long a *ryūteki* may hold a single note in a performance, making this iconicity of form more apparent. It also exhibits some of the microtonal embellishments which characterize not only *gagaku*, but other styles of Japanese traditional music. These are, for example, the ornamentation and slide observed in the sonogram at approximately T=4.6 seconds

Figure 14. Comparison of spectrogram of the *ryūteki* opening to a *gagaku* piece called *Kishunraku No Jo* (top) and the first short unities of «Recueil de pierre et de sable» (bottom).

[50] This comes from the same Kunaichō Gakubu CD as the *shō* example.

and T=5.6 seconds. At approximately T=8.1 seconds, the *ryūteki* player employs the "doubling" effect that Fineberg notes. At this point, although the amplitude of the fundamental does not appear to vary much, the amplitude of the upper partials are more intensely drawn, indicating higher amplitude.

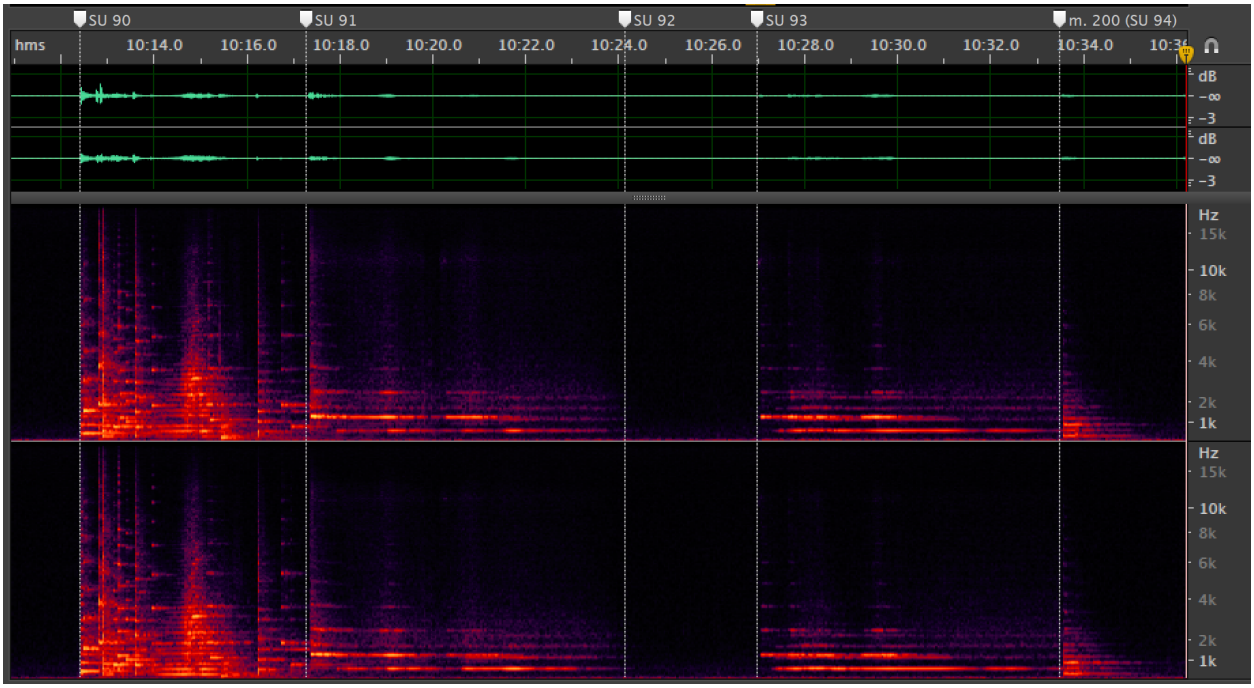

Figure 15. First five short unities of the *"ryūteki"* and super-harp duet in section [C].

The *ryūteki* texture is ultimately realized in an interplay between the super-harp/rake and flutes/*ryūteki* starting at SU 91 in section [C], shown in Figure 15. Like the opening section, here too the texture emerges autonomously on a continuum, as if contingently triggered by the rake. Figure 16 shows how this was created using music notation. The microtonal slide from C5 to C5 half sharp is one instance of the micro-

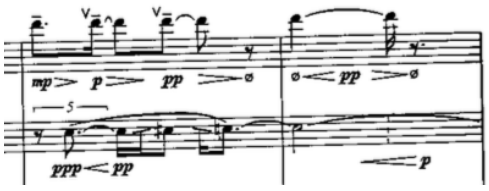

Figure 16. The *ryūteki* timbral augmentation at SU 93 / mm. 197-198.

tonal ornamentations characteristic of certain traditional Japanese music such as *gagaku* as wekk as *shōmyo*, mentioned briefly above. Note how here as well, the rhythms are irregular and asymmetric, yet also constitute a linear and sonically constant, yet also in-flux gesture, emphasized by the subtle and transient waves the *crescendi* and *decrescendi*. Also note the more pronounced overtone partials, which are very visually similar to those of the *ryūteki* opening of *Kishunraka No Jo* seen in Figure 14. Throughout this section, Fineberg develops the *ryūteki* texture in subtle yet complex ways, such as through articulations like timbral trills, irregular meters, scooping microtonal ornamentations, and melodic fragments which are iconic of the *Yō* scale used in *gagaku* and *shōmyo* music, mentioned previously. An example of this melodic fragment is heard in m. 201, shown in Figure 17.

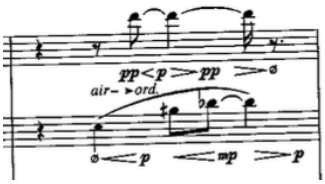

Figure 17. *Yo* Melodic fragment in m. 201.

To my ears, the orchestrally synthesized *ryūteki* succeeds in approximating the sound of the real instrument. In this way, it becomes an icon for the instrument, and, in so far as it closely mimics the *ryūteki,* which is for me an index for Japan. To reiterate, despite the problematic historicity of this conflation, this indexical quality is particularly important to the constitution of Zen affect in this piece in my hearing. Turino notes that an index functions because of repeated experiences and associations between a sign and an object, to the extent that "their connection is simply true or a fact" (Turino 2014: 195-196). Furthermore, indexes are paramount in creating emotional effect. Their emotional potency, Turino emphasizes, is directly in proportion to the emotional potency of what the sign stands for. Because of the peculiarity of the sound, and my past experience in hearing Japanese music, it forms what Turino calls an index cluster, which I have already touched upon. Whereas the super-harp could indeed function as an imaginative, inkblot function iconic metaphor for any rake, really, the index of the *ryūteki* affirms the context

through creating indexical cluster. We may recall that an indexical cluster is a case “when the strongest indexical associations of a sign are with other signs so that they may become habitually connected through repetition of the cluster” (Turino 2014:214). Turino observes that nationalist and academic canons of music and dance are good examples of indexical clusters (ibid). The indexical cluster in this case becomes canons of Japanese music, especially musics associated with transverse flutes. This includes not only *ryūteki*, and its associated style of *gagaku* but also including all members of the *yokobue* flute family, including the *nōkan* which is used in *nōgaku*. *Nōgaku*, a form of classical Japanese music drama touched briefly upon above, is associated with both Zen and the historical development and refinement of not only the *wabi* aesthetic, but also the *yūgen* aesthetic under Higashiyama Culture. Ultimately, these indexes towards Japanese classical arts, via Fineberg’s sensitivity to their iconic formal and sonic constitution, contribute to the consecration of an affective tonality of "Zen-ness" in my listening. I believe that for other listeners like some of those of the “WAM World” node, the sounds of *gagaku* may function with similar indexical potency and indeed facilitate their own individual senses of “Zen-ness.” This conflation may leave others, however, all the more so quizzical.

Chapter V. Reflection & Conclusion

1. Reflection & Conclusion

Victor Sōgen Hori, an ordained Zen monk and Stanford-educated philosophy professor, offers an interpretation of the famous *kōan* of Hakuin Ekaku which is the epigraph to this thesis: "Two hands clap and there is a sound. What is the sound of one hand?" Hori writes,

> ...in the beginning a monk first thinks a kōan is an inert object upon which to focus attention; after a long period of consecutive repetition, one realizes that the kōan is also a dynamic activity, the very activity of seeking an answer to the kōan. The kōan is both the object being sought and the relentless seeking itself. In a kōan, the self sees the self not directly but under the guise of the kōan ... When one realizes ('makes real') this identity, then two hands have become one. The practitioner becomes the kōan that he or she is trying to understand. That is the sound of one hand. (Hori 1999)

In a sense, I feel like my work here has been towards a deeply personal realization of what "makes real" the identity of a sound as evocative of an aesthetic—of what may make a sound function as "Zen-ness." However, my words are imperfect and novice—perhaps even naïve—attempt to grasp at the clouds of Zen and musical meaning. Because of the influence of the subjectivity of musical experience, I can only speak symbolically about this experience, which in and of itself directly corresponds to the time which I have invested in this piece, and the relative depth (be it shallow or not) of my knowledge of Zen and of its relationship with Japanese aesthetic concepts. Muju Ichien accounts for the name of *Shassekishu*—in French, «Recueil de pierre et de sable»—in its opening. "Those who search for gold extract it from sand; those who take pleasure in jewels gather pebbles and polish them. So I call this book the *Collection of Sand and Pebbles*" (Ichien [1283] 1985:72). The sand and pebbles are the real, the tangible, the sayable, and the material. For him and in his words, they are "the wanton sport of wild

words and specious phrases" which, however imperfectly, are written with the hope of revealing the mystical truths taught by Buddhism. One does not reach the mystical revelations at the core of Buddhism without, so to speak, extracting it from the sand and pebbles; one sees the meta-physical truth supposedly underlying the Zen garden by apprehending and deeply feeling the pathos constituted by surpassing the unification of "equivocal spatiality and polymorphous tem-porality" in physical form (Weiss 2010: 93). Do my own "wild words and specious phrases" here reveal, on any ontological level, "Zen-ness"? Moreover, does Fineberg's «Recueil de pierre et de sable» reveal to other ears any "Zen-ness"? Perhaps not at all—at least not to anyone beyond myself, in so far as I have expressed my understanding in this thesis.

A major goal of this thesis was to show how Zen content could be perceived as manifest in a piece of western art music written by an American composer. Pervading my year-long com-position of this thesis has been the hope that my analysis of «Recueil de pierre et de sable» will demonstrate how one composer, Joshua Fineberg, demonstrated his own deep consciousness of Zen concepts which—at least in my hearing—function to produce an affective tonality of "Zen-ness"; and that an in-depth consideration of the constitution of this "Zen-ness" in my experience would reveal not only characteristics of sonic structures that cultivate this affect, but how this affect may structure experience, given a certain contextual aesthetic frame of reference. By putting the piece in the context of Rice's three dimensional model of music experience, I at-tempted to illuminate a subculture of Westerners who engage with Zen concepts, including but not limited to musicians and composers of WAM. I argued that a fundamental element of "Zen" as a transcultural sign in the West, and a unifying thread between the members of this subculture, is a deeply-felt desire for personal change and a new "way-to-be." I furthermore suggested that,

if a desire for a new "way-to-be" is a unifying thread in this subculture, then the unsayable, abstract aesthetic experience of the arts, and especially of music, resonates deeply with Zen experience. By exploring both the subject-positions of Fineberg, I attempted to highlight a composer who is but one example of an American interested in and moved by Buddhism and Buddhist thought, and show how this deep involvement is reflected in his work. Moreover, by adopting a frame of reference around the circulation of metaphors that constitutes Japanese and Zen related aesthetics manifest in dry landscape gardens, tea ceremony pottery, *haiku*, and so on, I attempted to show the semiotic potency of this work in a way which is, albeit personal, references the circulation of metaphors and iconicities in Japanese and Zen-related aesthetics such that others who are interested in Buddhism in general and Zen in particular may find salient and perhaps even experientially transformative.

In the first chapter of this thesis, I quoted neurologist and Zen practitioner James H. Austin, who despite his rigorous exploration of Zen and its neurological bases, stressed that "deepest truth" of Zen cannot be captured in words: "Let it be clear that each [abstraction] moves us farther away from Zen and from the simple direct experience of wet raindrops on the face. . . Insight information, like a cool drink of water, has an impact at levels beyond reasoning" (Austin 1998:11). The expedient techniques of phenomenology, semiology, music analysis, and so on do not capture the "mystical" and "unsayable" truths of musical experience nor Zen. My words in this may serve to guide us—both the reader and myself—however slightly, through metaphor and experience, towards the unsayable insights of Zen. But as it were, from the perspective of Zen, in the end, my words are pebbles and sand, sifting gently through the fingers of an outstretched hand.

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