CONCEPTS OF TIME IN THE WORKS OF JOHN CAGE, GEORGE CRUMB, AND TŌRU TAKEMITSU AND IMPLICATIONS FOR PERFORMANCE

by

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DECLARATION

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Ikuko Inoguchi

ABSTRACT

This study explores concepts of time and temporality in the music of three twentieth-century composers, John Cage (1912-1922), George Crumb (born 1929), and Tōru Takemitsu (1930-1996). This thesis also examines the role that the performer plays in conveying temporal aspects of body of work.

These three composers were interested in nonlinear conceptions of time, which they sought to express in musical terms. I have chosen a selection of works by each composer, which epitomize these conceptions, for in-depth study. I also discuss cultural influences upon conceptions of time, and the meanings of nonlinearity in different contexts.

All three composers were interested in and influenced by Eastern Asian music and philosophy; I investigate the manifestation of this in their music. The expression of temporal nonlinearity presents equal challenges to both composers and performers. With this in mind, I focus on the relationship of the performer to the specific notational practices of each composer. I investigate how this has been realized by earlier performers through a comparative study of recordings.

Where possible, I have consulted primary sources (i.e., sketches and manuscripts) and also articles and programme notes written by the composers in question. Furthermore, I have investigated recorded interviews with composers and expert performers, the latter of which provided valuable insights into composers' intentions. I also draw upon my experience as a performer.

Following the introduction (Chapter 1) in which Jonathan Kramer's definition of linearity and nonlinearity is introduced, Chapter 2 considers issues related to musical time and temporality, and to the notation and interpretation of twentieth-century music. Three central chapters 3, 4, and 5 apply these in consideration of the works of Cage, Crumb, and Takemitsu, respectively. Chapter 6 focuses more specifically to the performance of these works, drawing upon the result of earlier chapters. Chapter 7 discusses wider implications of this study through examining Edward Cone's approach to structure and proportion in performance, Stephan Davies' view of the proper interpretation of a score, and responding to a question regarding performance ideal addressed by Lydia Goehr.

This research aims to contribute to the knowledge of the analysts of twentieth-century music, and also provides valuable information which can inform future performances of such music.

Chapter 1: INTRODUCTION

1.1 Context, Aim, and Purpose

Musical development in the twentieth century posed new challenges for performers and listeners. Scholars and contemporary composers such as Leonard B. Meyer (1953, 1963), George Rochberg (1963), and Robert Morgan (1980) have discussed the emergence of a type of non-directed time in twentieth-century music, as perceived especially in the music of Anton von Webern and other composers influenced by his works.[1] The scholars' focus is the relationship between these new conceptions of temporality and the specific techniques employed by composers; however, in their discussion, performance is not considered one of the factors in influencing the listener's temporal perception of a work. Jonathan Kramer (1988) points out the possibility of the performer's interpretation being the force of highlighting or de-emphasising a work's linearity and nonlinearity; however, it is not his primary concern in the analysis and discussion of musical time.[2] Following the work of Nicholas Cook (2003), who advocates the reorientation of music as performance,[3] this thesis aims to argue that not only the melodic, harmonic, and rhythmic construction of music, but also approaches to performance affect the listener's perception of time as progressive or non-progressive. The purpose of the

[1] Leonard B. Meyer, *Emotion and Meaning in Music* (Chicago: University of Chicago Press, 1953); idem, "The End of the Renaissance?" *The Hudson Review* 16, no. 2 (Summer, 1963): 169-186; George Rochberg, "The New Image of Music," *Perspective of New Music* 2, no. 1 (Autumn-Winter 1963): 1-10; Robert P. Morgan, "Musical Time/Musical Space," *Critical Inquiry* 6, no. 3 (Spring 1980): 527-538.
[2] Jonathan D. Kramer, *The Time of Music: New Meanings, New Temporalities, New Listening Strategies* (New York: Schirmer Books, 1988).
[3] Nicholas Cook, "Music as Performance," in *The Cultural Study of Music: A Critical Introduction*, edited by Martin Clayton, Trevor Herbert, and Richard Middleton (New York and London: Routledge, 2003), 204-14. Cook has pursued this focus in a range of subsequent writings, e.g., *Beyond the Score* (Oxford: Oxford University Press, 2013).

research is to contribute to analysis of twentieth-century music and those who perform such music.

One important source for new temporalities of twentieth-century music is to be found in the interest at that time, in Asian music and philosophies, which I will examine in detail. Meyer and Kramer consider that Claude Debussy's encounter with gamelan music and Cage's involvement with Zen epitomise this phenomenon.[4] The use of nonlinear concepts of time will be studied in the piano works of two American composers, John Cage (1912-1992) and George Crumb (born 1929), and the Japanese composer Tōru Takemitsu (1930-1996). The works chosen for this study are those in which the composers' interest in Asian materials is evident and clearly expressed through titles, programme notes, or performance instructions: Cage's *Haiku* (1951) and *Seven Haiku* (1952), Crumb's *Makrokosmos I & II* (1972-73), and Takemitsu's *Rain Tree Sketch* (1982), *Rain Tree Sketch II—In Memoriam Olivier Messiaen* (1991), and *Orion* for cello and piano (1984). The works chosen are limited to those in which pitch, rhythm, tempo, dynamic, articulation, and pedalling are determined by notation. Both Cage and Takemitsu incorporated indeterminate durations in such works as *Music for Piano* (1952-56), which use paper imperfections, and *Corona* for pianists (1962), which uses graphic notation, respectively; these works were not included as Crumb does not employ this compositional technique.[5] The review of the

[4] Meyer, "The End of the Renaissance?" 169-186; Kramer, 44.
[5] Cage's influence in Takemitsu's use of graphic notation is evident. Cage incorporates a variety of graphics in *Concert for Piano and Orchestra* (1957-58). On 25 August 1961, Takemitsu heard this work performed by Cage's student Toshi Ichiyanagi at the festival of *20-seiki Ongaku Kenkyūsho* in Ōsaka. In Cage's obituary (1992), Takemitsu writes that even after thirty years he could not forget the impact of the performance. See Tōru Takemitsu, "Oto, Chinmoku to Hakariaeru hodo ni, (1971)" in *Takemitsu Tōru Chosaku-shū*, vol.1 (Tokyo: Shinchō-sha, 2002), 46; Mitsuko Ōno, "Takemitsu Tōru Nenpu," in *Takemitsu Tōru Chosaku-shū*, vol. 5 (Tokyo: Shinchō-sha, 2002), 362.

three composers' music also serves as an investigation of twentieth-century compositional techniques outside Europe where serialism, which derives from the tradition of the second Viennese School, was frequently employed by some Darmstadt composers who challenged traditional musical progressions. The three composers represent different groups of musicians in terms of cultural and educational background. Cage took lessons from Arnold Schoenberg (1874-1951), but was not an academically trained composer; Crumb studied at the Mason College of Music, the University of Illinois, Champaign-Urbana, the *Hochschule für Musik*, Berlin, and the University of Michigan, Ann Arbor.[6] Takemitsu was fundamentally a self-taught composer, although he had personal consultations with the Japanese composers Yasuji Kiyose (1900-1981) and Fumio Hayasaka (1914-1955).[7]

This thesis seeks to identify the process by which the composers' conceptualizations of nonlinear time evolved into different types of nonlinearity, and then considers what implications this has for performance. This is achieved through contextualisation of the three composers' works within wider theoretical models of time and musical time as discussed in scholarly literature; an analysis of texts (e.g., the composers' writings, interviews, and music); and an analysis of recordings. Whenever possible, primary sources, i.e., sketches and manuscripts, have been consulted. Both published and unpublished interviews of performers who worked with the composers have been included in the analysis investigating performance. These include my personal communications with the pianists Robert Shannon, Jeffery Jacob, Alejandro Cremaschi (who worked with Crumb), Noriko Ogawa, and Kazuoki

[6] Rob Haskins, *John Cage* (London: Reaktion Books, 2012), 21-39. "George Crumb," in *Naxos* <http://www.naxos.com/person/George_Crumb_16527/16527.htm>, accessed on 19 August 2015.
[7] Takashi Tachibana, "Takemitsu Tōru Sōzō e no Tabi 2," *Bungakukai* (August 1992): 258-274; Takashi Tachibana, "Takemitsu Tōru Sōzō e no Tabi 4," *Bungakukai* (September 1992): 234-249.

Fujii (who worked with Takemitsu). Their testimonies serve as an additional guide in considering issues of interpretation. In addition, I draw upon my own work as a performer and refer to questions raised in my rehearsal and performance diaries.

The study of musical time and temporality in relation to performance is a relatively new area of music scholarship. This will be examined in the context of the composers' musical cultures and other influences upon their works as well as the challenges faced by performers of these works. John Cage composed *Seven Haiku* in 1951-1952, inspired by Reginald Horace Blyth's *Haiku* (1949-1952) and Daisetz Suzuki's lectures on Zen and Buddhism at Columbia University.[8] The use of the title *haiku* (a Japanese short poetic form, portraying scenery without explaining the cause and effect of an event) suggests that Cage intended to convey the time of contemplation experienced by a haiku poet and his readers. However, the musical events of the work are organized precisely in terms of absolute time, the whole duration of each movement being determined in notation, for instance, 12 seconds in the first movement.[9] Thus Cage is seen to be concerned with mathematical, clock time. To my mind, the immeasurable length of time spent by a haiku poet and the measured time presented by mathematically calculated, absolute time are not compatible. This presents the performer with a dilemma: which aspect of time should be emphasized; is it possible to achieve both in a single performance? Crumb was fascinated with the idea of the "timelessness" of time yet the lengths of fermatas in *Makrokosmos I & II* are often specified by numerically specific durations. How are performers expected to evoke a sense of the "timeless" while observing these linearly

[8] R.H. Blyth, *Haiku*, 4 vols (Tokyo: The Hokuseido Press, 1949-1952). Suzuki lectured on not only Zen but also on *Kegon*. Cage's oft-cited "unimpededness" and "interpenetration" are *Kegon* concepts, not Zen concepts as reported by Cage and Cage scholars. This will be explained in Chapter 3.

[9] Cage marks "12"" as the duration of the first movement; however, in calculation it slightly exceeds 12 seconds. This will be further discussed in Chapter 6.

defined durations? Takemitsu incorporated the Japanese concept of *ma* in his music. This is an important idea concerning the Japanese attitude towards time and space; it is considered to pervade every aspect of daily life, artistic expressions, and aesthetics. Although *ma* is often translated as empty time/space or silence, it is not a passive, but a living and active entity. In music, *ma* is the duration between two sounds, purposely inserted to enhance the meaning of the sound.[10] During *ma*, the performer must concentrate on the decaying sound, whose duration is determined by the performer's artistic sensitivity and personal, internal sense of time. In Henri Bergson's term, it is not *spatialised* time (mathematical, clock time), but *lived* or *experienced* time.[11] How is this aesthetic expressed in Takemitsu's writing using Western musical symbols? Should the performer observe the mathematically correct length of a rest by counting methodically? Given the cultural concept of *ma*, is it possible to quantify the performer's artistic and subjective timings? How a performer solves the paradox will influence the listener's temporal perception and understating of the work being performed.

1.2 Cultural Influences on Concepts of Time and Temporality

In every culture, music reflects the culturally specific view of time. In our daily experience, the movement of solar objects or the sound of a clock and a bell make us aware of the continuity of time. The passing of time can be physically perceived through our actions, such as writing, listening, and playing an instrument.

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[10] Chapter 5 discusses the concept of *ma* and how the beginning and the ending of a sound relate to it.

[11] In his article "Bergson and Jung," Pete A.Y. Gunter explains, "Basic to the philosophy of Bergson is his distinction between time as spatialized and time as experienced… 'Spatialized' time is mathematical, a 'clock time' all of whose parts are alike and all of whose instant are static. When analyzed, such a time turns out to be not time at all but a 'forth dimension of space.'" Pete A. Y. Gunter, "Bergson and Jung," *Journal of the History of Ideas*, 43, no. 4 (Oct-Dec., 1982), 635-36.

However, concepts of time are culturally and philosophically defined, and the culturally defined concepts of time are shared among the people within specific community. Alexander Evan Bonus (2010) illuminatingly states, "We are born into our culture's 'time,' unconsciously and unquestioningly accepting of it."[12] This affects not only the way a musical composition is organized, but also the way it is performed and perceived by the listener.[13]

One of the trends of the European art scene in the late nineteenth-century exemplifies the close relationship between cultural concepts of time and artistic expression. The *Exposition Universelle* in Paris in 1889 and 1900 and *Japonism* aroused the interest of Western artists in Asian art and music. Claude Monet (1840-1926) was captivated by Japanese prints and the Japanese aesthetics of capturing the transitory beauty of natural phenomena. His *Série des Cathédrales de Rouen* are portraying differences in light and shade within a day and a year. These are an example of his new approach to momentary beauty. Claude Debussy (1862-1918), another fan of Japanese prints, explores subtle colour changes in "*Reflets dans l'eau*," a work which depicts concentric ripples.[14] The emphasis on the *moment* in Japanese

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[12] Alexander Evan Bonus, "The Metronomic Performance Practice: A History of Rhythm, Metronomes, and the Mechanization of Musicality," (Ph.D. thesis, Case Western Reserve University, 2010), 3-4.

[13] Justin London states in his article "Time" in *Grove Music Online*, "Music also reflects the temporal sensibilities of its cultural milieu. In the Middle Ages the expansive polyphony of the Notre Dame school can be considered a musical portrayal of Boethian notions of eternity and timelessness. In the Age of Reason, with its emphasis on taxonomy and order, the propriety of musical succession and continuity was a source of aesthetic satisfaction and wit, as in Haydn's use of orderly disorder, wherein he begins a piece with an ending gesture. In music of the 20th century we find explorations of discontinuity, non-linearity, fragmentation and chaos." See "Time," *Grove Music Online* (*Oxford Music Online*) Oxford University Press, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/43935>, accessed on 7 June 2015.

[14] Marguerite Long, *At the Piano with Debussy*, translated by Olive Senior-Ellis (London: J.M. Dent & Sons ltd, 1960), 25. Debussy described the image of "Reflets dans l'eau" as "a little circle in water with a little pebble falling into it." Debussy's

art was new to the eyes of European artists of that era. This is symptomatic of the differences in the concepts of time between the Eastern and Western culture.

1.2.1 Time in Western Culture: Progression and Objectivity

In the West, time is regarded as linear, continuous, and progressive; it is often represented by images of moving, directional objects, such as an arrow and a river. The American philosopher F. S. C. Northrop (1946) observes:

> The Westerner represents time either with an arrow, or as a moving river which comes out of a distant place and past which are not here and now, and which goes into an equally distant place and future which are also not here and now; whereas, the Oriental portrays time as a placid, silent pool within which ripples come and go.[15]

In the writings of Western authors, time is often portrayed as an arrow: *Time's Arrow: or the Nature of the Offence* (1991) by Martin Amis and *Bach's Cycle, Mozart's Arrow: An Essay on the Origins of Musical Modernity* (2007) by Karol Berger.[16] In R.H. Blyth's writing, the continuity of time is symbolized by a river.[17] Kramer considers that in the nineteenth-century Europe and America, the railroad served as an image of time that moves towards a goal or destination, thus directional and continuous.[18]

Long before that, time in the Bible was conceptualized as an entity that *flows* from the beginning to the end. The first chapter of the Bible "Genesis" is concerned

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interest in Japanese prints is evident in the use of Japanese blue in the title page of the first edition of *Estampes*.

[15] Filmer Stuart Cuckcow Northrop, *The Meeting of East and West* (New York: Macmillan Company, 1946), 376-83. Cited in Timothy Koozin, "Toru Takemitsu and the Unity of Opposites," *College Music Symposium* 30, no. 1 (Spring 1990), 39.

[16] Martin Amis, *Time's Arrow: or the Nature of the Offence* (London: Vintage, 1991); Karol Berger, *Bach's Cycle, Mozart's Arrow: An Essay on the Origins of Musical Modernity* (Berkley and Los Angeles: University of California Press, 2007).

[17] R.H. Blyth, *The Genius of Haiku: Readings from R.H. Blyth on poetry, life and Zen.* With an introduction by James Kirkup (London: The British Haiku Society, 1994), 70.

[18] Kramer, 13.

with the beginning of the world and the last chapter "Revelation" with the ending of the world—the Apocalypse.[19] The Bible also teaches that human life is finite; it has a beginning and an end, whereas God's existence is timeless and eternal.[20] Here exists the Judeo-Christian dualistic worldview, contrasting man and God, finite and infinite, time and timelessness.

Objectively observed time is measurable and dividable into different parts, such as past, present, future; various lengths of time are comparable. Revolving around the Judeo-Christian ideology, St. Augustine refers to the passing of time and the measurability of time in his *Confession*, Book XI (397-401):

> I said then even now, we measure times as they pass, in order to be able to say, this time is twice so much as that one; or, this is just so much as that; and so of any other parts of time, which be measurable. Wherefore, as I said, we measure times as they pass.[21]

Based on this daily experience of time, he states that there are three times, i.e., past, present, and future:

> What now is clear and plain is, that neither things to come nor past are. Nor is it properly said, "there be three times, past, present, and to come": yet perchance it might be properly said, "there be three times; a present of things past, a present of things present, a present of things future." For these three do exist in some sort, in the soul, but otherwhere do I not see them; present of things past, memory; present of things present, sight; present of things future, expectation. If thus we be permitted to speak, I see three times, and I confess there are three.[22]

The objective orientation to time in the Western world is also seen in the scientific field. Isaac Newton (1642-1726) considered that time passes uniformly

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[19] I have consulted King James version at <https://www.lds.org/scriptures/bible.Version>, accessed on 18 June 2015.
[20] In "Genesis" the life of human is clearly indicated with numbers (e.g., Genesis 5:5, "And all the days that Adam lived were nine hundred and thirty years: and he died,"), and this is contrasted with God's infinity (e.g., Revelation 1:8, "I am Alpha and Omega, the beginning and the ending, saith the Lord, which is, and which was, and which is to come, the Almighty").
[21] St. Augustine, *The Confessions of Saint Augustine* Book XI <http://www.sacred-texts.com/chr/augconf/aug11.htm>, accessed on 19 June 2015.
[22] Ibid.

regardless of what is happening externally in the world. Thus he promoted the idea of absolute, mathematical time. This remained the prevailing scientific view of time in the Western society until it was challenged by Albert Einstein's theory of relativity in the twentieth century.[23]

1.2.2 Time in Asian Culture: Cycles, the Now, and the Immeasurability of Time

In Asian cultures, religion and philosophical beliefs are also determinants of the accepted concepts of time. In contrast to the "flow" of Western time, the emphasis in Asian cultures is on the "now" and on time proceeding in infinite cycles. In Buddhism teaching, time is regarded as an immeasurable entity.

"The laws of Manu" (created between the second century BC and the second century AD), a Sanskrit text of Brahmanism, provides an Indian version of the creation story.[24] Here, a God called Brahman is declared as the creator of the universe and men, and the world is depicted to have gone through infinite cycles of creations and destructions as Brahman repeats his cycles of awaking and sleep. This cyclic view of time is also applied to the life of the human, and the text promotes the idea of

[23] "Newton's Views on Space, Time, and Motion" in *Stanford Encyclopaedia of Philosophy*, <http://plato.stanford.edu/entries/Newton-stm/#1>, accessed on 16 May 2015.

[24] According to Encyclopaedia Britannica Brahmanism is "religion of ancient India that evolved out of Vedism. It takes its name both from the predominant position of its priestly class, the Brahmans, and from the increasing speculation about, and importance given to, Brahman, the supreme power. Brahmanism is distinguished from the classical Hinduism that succeeded it by the enhanced significance given in classical Hinduism to individual deities, such as Siva and Vishnu, and to devotional worship (bhakti)." Encyclopaedia Britannica, "Brahmanism," <http://www.britannica.com/EBchecked/topic/77141/Brahmanism>, Accessed on 31 May 2015.

transmigration and reincarnation of men; the expression "twice-born man" is repeated numerously throughout the text.[25]

Buddhism, founded by Siddartha Gautama (563-483 BCE or 448-368 BCE), does not acknowledge Brahman as the creator of the universe; however, it shares the idea of infinite time, *kalpa* (*gō* in Japanese), and regards the world as a wheel, symbolizing the idea of time as having no beginning and end.[26] Buddhism has also created the concept of infinitesimal time, *ksana* (*nen*, or *setsuna* in Japanese).[27] These units of time are not defined with actual numbers, thus *immeasurable*.

Original Buddhism (known as *Syoki Bukkyō* in Japanese) travelled from India to China, and then to Japan, resulting in the development of different branches of Buddhism. Historically, teachings of the Buddha were orally transmitted during his lifetime, and various versions of Buddhism texts were created by his disciples after his death.[28] Translation of original Sanskrit into Chinese, and then from Chinese to Japanese resulted in different interpretations of original teachings of the Buddha.[29] Different branches of Buddhism began to formulate their own doctrines of which *Kegon* and Zen are relevant to this study.

Compared with the Western view of objectively experienced time that flows from past to future, *Kegon* view of time is more abstract, seeing all kinds of different

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[25] "Laws of Manu," translated by George Bühler, <http://www.sacred-texts.com/hin/manu.htm>, Accessed on 31 May 2015.
[26] Issei Nakaso, Yoshizumi Nakane, et al, *Dachidoron-Wayaku* (Aichi: Aichi Gakuin University, 1985), 267.
[27] In *Daichidoron-Wayaku*, the Sanskrit word ekaksana is translated as the translator gives *ichinen*. According to Seizan Yanagida, setsuna is the duration that a thought comes and goes. Seizan Yanagida, "Zen Bukkyō no Jikan Ron," in *Kōza Nihon Shisō*, edited by Tōru Sagara (Tokyo: Tokyo Daigaku Shuppankai, 1984), 79-131.
[28] My understanding of the history of Buddhism is based on my reading of Shōkō Watanabe, *Nihon no Bukkyō* (Tokyo: Iwanami Shinsho, 1985).
[29] Now translations from Sanskrit to Japanese are also available. See for instance, *Hannya Shinkyō*, translated by Gen Murakami and Kazuyoshi Kino (Toyko: Iwanami Bunko, 1977).

time periods in the *now*. Hōzō (Fazang in Chinese) (643-712) states in *Kegon Konjishisyō* that *setsuna* (very short moment during which *ichinen*, a thought, comes and goes) is consisted of ten passages of time which are made of three periods (i.e., past, present, and future), each of which consists of their own past, present, and future (3 x 3), plus the time of *setsuna* itself (+1). Although these passages of time appear to be apart from each other, they are interconnected and influence one another. Thus, *ichinen* (one thought) contains all ten passages of time, existing as the eternal now.[30] This concept is explained with the word *sokunyū* (即入) in *Kegon-Kyō*:

> 或いは長劫を以て短劫に入れ、短劫を長劫に入る。或いは百千大劫を一念と為し、一念即ち百千大劫なり。或いは過去劫を未来劫に入れ、未来劫を過去劫に入る。是の如く自在にして、時劫無礙に、相即相入し、渾融して成ず。[31]

A long time (*gō*) can be a short moment of a thought (*ichinen*) or vice versa. The words *muge* (無礙 free from obstacles, obstruction) and *sōsoku sōnyū* (相即相入 all beings are not conflicting but influencing each other) are important keywords in *Kegon*, which also appear in Suzuki's lecture transcript "The Development of Buddhist Thought in China," his first lecture at Columbia on 1 March 1951 (See Chapter 3).

The Zen monk Dōgen (1200-1253) discusses time from the experience of *satori*, a spiritual awakening, cherishing one's concentration on the now. Unlike other branches of Buddhism, Zen principles are not based on a certain text, but focus on

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[30] "Bukkyo no Jikan ron," <http://www.timelineguide.com/p-ws-ji-bu.htm>, accessed on 20 May 2015. For the English word "period" the text uses the Chinese character 際 and for the passages 世. In Japanese 世 means generation or era. The whole text of *Konjisishō* can be found in "Konjisishō" in *Shin Kokuyaku Daizō Kyō / Chūgokusenjyutsu-bu 1-1 <Kegon Sōbu>*: *Kegon Go kyōshō (Sō-hon), Konjisishō, Hokkaigenkyō*, eds. Kiyotaka Kimura and Eirei Yoshida (Tokyo: Daizō-Shuppan, 2011), 185-195.

[31] Hōzō quotes this in *Kegon Go Kyōshō* (Hua-yan wujiao-zhang) (683?). "Kegon Go kyōshō (Sō-hon)" in *Shin Kokuyaku Daizō Kyō · Chūgokusenjyutsu-bu 1-1 <Kegon Sōbu>*: *Kegon Go kyōshō (Sō-hon), Konjisishō, Hokkaigenkyō*, 15-183.

attaining the spiritual experience of *satori* and the physical realization of *kū* through meditation.[32] In Dōgen's view, *satori* is to experience the interrelationship of the world constructed without obstruction and to realize that there is no division between self and other, including "I" and "you," and "I" and the universe.[33] To Dōgen the moment of *satori* is the culminant point of time in human existence; he negates the idea of objective time, which flows outside oneself, but encourages to concentrate on the now (*jikon*) and to actively involve with time. Therefore, for him time exists as a non-continuous entity, and it should be experienced as the succession of the spiritual now.[34]

1.3 Linearity and Nonlinearity: Kramer's Definition and Problematic Oppositions

In the discussion of musical temporality, a variety of terminologies has been employed by Western scholars: "teleological and non-teleological" is used by Leonard B. Meyer (1956, 1963), "linear and spatial" by George Rochberg (1963), Wilfrid Mellers (1964), and Robert Morgan (1980), and "linear and nonlinear" by

[32] Mitsuko Yorizumi, *Dogen: Jiko, Jikan, Sekai wa dono yōni Seiritsu suruknoka* (Tokyo: NHK syuppan, 2007).
[33] Ibid., 56-58.
[34] Ibid., 28-9, 86-105; Gen Nakamura, *Hannya Shinkyo* (Tokyo: Iwanami-Bunko, 1960), 19. It is known that Siddartha Gautama underwent *satori* when meditating under a bo tree. Although Buddhist texts report that he physically went through *kū* (*śūnyatā* in Sanskrit) during his spiritual awakening, the Buddha himself did not preach the exact content of his realization of the ultimate truth. This is because *kū* is a *physical experience* rather than a concept to be understood, and therefore, the true nature of *satori* cannot be fully verbalized and defined. The exact meaning of *kū* depends on the context in which this word appears. Nakamura explains that *kū* is the state of void, and it also denotes 0 in Indian mathematics. In the teaching of Buddhism, *kū* symbolizes the belief that no objects and phenomena have substance because things are affecting each other, and a phenomenon consists of indefinable numbers of causes and conditions.

Jonathan D. Kramer (1981, 1985, 1987, 1988).[35] (See Chapter 2.) The "linear-spatial" division was criticized by the theorist Lewis Rowell (1996) who considered, "[S]uch studies will [not] help us learn more about time."[36] Kramer's terminology of linear and nonlinear has been widely adopted: it is used in the analysis of the music of Takemitsu by Blake Matthew Wilkins (1999) and by Tomoko Deguchi (2005).[37] In *Grove Music Online*, Justin London also uses the word "non-linearity" in a discussion of musical time in twentieth-century music.[38]

In this thesis, I have used Kramer's dichotomy, but with some modifications. Kramer, himself, defines the terms:

> …linearity [is]…*the determination of some characteristic(s) of music in accordance with implications that arise from earlier events of the piece.* Thus linearity is processive. Nonlinearity, on the other hand, is nonprocessive. It is *the determination of some characteristic(s) of music in accordance with implications that arise from principles or tendencies governing an entire piece or section.* Let us also define linear time as the temporal continuum created by a succession [of] events in which earlier events imply later ones and later ones are consequences of earlier ones. Nonlinear time is temporal continuum that results from principles permanently governing a section or piece.[39]

He also associates linearity with the idea of *becoming* "found prominently in the linear logic that began in ancient Greece and culminated in modern Western

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[35] Meyer, 1956, 1963; Rochberg, 1963; Wilfrid Mellers, "From noise to silence: Harry Partch, John Cage and Morton Feldman," in *Music in a New Found Land* (London: Barrie and Rockliff, 1964), 169-193; Jonathan D. Kramer, "New Temporalities in Music," *Critical Inquiry* 7, no. 3 (Spring 1981): 539-556; idem, "Studies of Time and Music: A Bibliography," *Music Theory Spectrum* 7 (Spring 1985): 72-106; idem, "Moment Form in Twentieth Century Music," *The Musical Quarterly* 64, no. 2 (April 1987): 177-194; idem, 1988. The views of Meyer, Rochberg, Mellers, and Morgan will be discussed in Chapter 2.

[36] Lewis Rowell, "The Study of Time in Music: A Quarter-Century Perspective," *Indiana Theory Review* 17, no. 2 (1996): 68.

[37] Blake Matthew Wilkins, "An Analysis of Musical Temporality in Toru Takemitsu's 'Rain Tree' (1981)" (D.M.A. diss., The University of Oklahoma, 1999); Tomoko Deguchi, "Forms of Temporal Experience in the Music of Toru Takemitsu" (Ph.D. diss., State University of New York at Buffalo, 2005).

[38] London, *Grove Music Online*. It is not clear if he adapts Kramer's definition of linearity and nonlinearity.

[39] Kramer, *The Time of Music*, 20.

philosophy and science" and nonlinearity with the idea of *being* in the "inward-looking, highly disciplined Buddhist philosophies in which Zen plays a prominent part."[40]

The chart below indicates the characteristics that Kramer associates with linearity and nonlinearity:

Linearity	*Nonlinearity*
teleological listening	cumulative listening
horizontal	vertical
motion	stasis
change	persistence
progression	consistency
becoming	being
left brain	right brain
temporal	atemporal[41]

The opposition between the left- and the right-brain hemispheres is problematic. First, as he acknowledges, "the psychological sciences have yet to develop an adequate framework for understanding nonlinear time experiences."[42] Second, along with his association of linearity with West and nonlinearity with East, this division risks the danger of presenting brain functions as an oversimplified explanation of different thought processes between the two cultures. It is generally acknowledged that the left brain is concerned with our rationality. However, within the limitation of our present knowledge, to apply this theory to cultural aesthetics and values is of questionable validity.[43] Whether or not the temporal perception of listeners is determined by

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[40] Ibid., 16. The sentence "inward-looking…" is quoted from Edward T. Hall, *The Dance of Life: The Other Dimension of Time* (Garden City, NY: Anchor, 1984), 9.
[41] Ibid., 63.
[42] Ibid., 21.
[43] Kramer gives a chart (pp. 9-10) explaining different functions of the right- and left-brain, which is adapted from Gabriele Lusser Rico, *Writing the Natural Way* (Los Angeles: Tarcher, 1983), 69; Robert E. Ornstein, *The Psychology of Consciousness* (New York: Penguin, 1972), 83; Peter Russell, *The Brain Book* (London: Routledge and Kegan Paul, 1979), 54; Jeremy Campbell, *Grammatical Man* (New York: Penguin, 1984), 241-48. See Edward Said's *Orientalism* (London: Penguin, 1977) for

psychological expectation or by structure within the music, and which parts of the brain are activated is yet to be established. Phenomenological issues, such as these, are beyond the scope of this dissertation.

Another controversial dichotomy in Kramer's definition is the opposition between temporality and atemporality. The *Merriam-Webster* online dictionary defines the word "temporal" as "of or relating to time as opposed to eternity," "of or relating to earthly life," and "lay or secular rather than clerical or sacred."[44] It is clear that this English term is associated with a particular philosophical and religious orientation. This is an unavoidable consequence of culturally specific values and aesthetics attributed to "time."[45]

The difficulty of dealing with time originates from the nature of time itself: it can be *felt* through our physical sensation that is affected by geological location, climate, and lifestyle, in other words, it is part of the *rhythm* of our daily life. Therefore, our perception and understanding of time cannot escape our subjective, personal relation and intuitive reactions to time. As used in this thesis, the terms linear and nonlinear *characterize* time and describe the listener's temporal experience of a musical work.

1.4 Linearity and Nonlinearity: My Understanding

Linearity may be delivered as a type of continuity constructed by a consequential relation between events or ideas. In linear music, musical events are ordered with a view of directing time to progress towards a climax and to achieve a

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the examples of rationality used as the sign of cultural superiority in the Western society.

[44] "Temporal," in *2015 Merriam-Webster*, <http://www.merriam-webster.com/dictionary/temporal>, accessed on 7 June 2015.

[45] See Appendix 1 for the differences in the definition of time in English and Japanese.

particular end. Nonlinearity may be understood as a type of continuity created by the succession of non-consequential events or ideas. In nonlinear music, musical events are arranged not with an aim to reach a particular goal but in order to present time as the mood that governs the whole piece or a section. This mood can be experienced as a state of permanence or as an irregular flow of time, which may accompany a sudden intensity or an increased density of time.

As seen earlier, both linear and nonlinear concepts of time exist in Western and Asian culture; I do not intend to use these terms to represent cultural differences, or brain functions. Moreover, the dichotomy between temporal and atemporal as well as between time and timelessness have religious and philosophical connotation, and these terms are avoided (although the duality of time and timelessness presented in the music of George Crumb are examined in Chapter 4). The terminologies as used in this thesis can be applied to the concepts of time, compositional procedures and techniques, listening modes, the temporalities of a musical work, and performance strategy. It should also be noted that listening is an activity that reflects one's cultural background, previous musical experience, and familiarity with the piece, thus the perception of linear and nonlinear characters may be personal and subjective.

The characterisation of nonlinear time as "an increased density of time" is best understood in the context of the Japanese concept of *ma*. Kramer contrasts linearity with nonlinearity in terms of motion and stasis, change and persistence, as well as progression and consistency. When dealing with *ma*, this simple, clear-cut division does not fully communicate its aesthetic. During *ma*, the motion of music or the movement of the performer decreases, or appears to be ceasing, but the performer's concentration on the moment increases. This might be perceived as static by listeners; however, it also makes them aware of subtle changes of timbre or the movement of

the performer, and encourages concentration on the now. This can be experienced as an increased intensity or density of time in which a flow of time seems to freeze. This can be best experienced in Japanese traditional arts, such as *nō* and *bunraku*.[46]

1.5 Structure of the Thesis

With the above theoretical construct, I conduct analyses of musical works and consider how performance may play a role in the communication of different concepts of time and temporalities to the listener. The thesis is organized as follows: Chapter 2 reviews existing literature discussing musical time and temporality, the notation and performance of twentieth-century music, and the music of Cage, Crumb, and Takemitsu. Chapter 3 examines Cage's learning of the Japanese poetic form haiku from Blyth's books and his attendance at Daisetz Suzuki's lectures at Columbia University, and how this influenced his understanding of time (and space) as manifested in his two haiku works for piano. This chapter also contains an analysis of Suzuki's diaries and the transcript of a Columbia lecture in March 1951; these materials have not so far been seen in Cage scholarship. Chapter 4 examines Crumb's idea of the "timelessness" of time. The first half of the chapter by consulting his programme notes and interviews clarifies the composer's image of the timeless. This section also investigates the influence of Asian philosophies and music in his understanding of time and compositional aesthetics. The second half of the chapter critically examines how the timeless is communicated in *Makrokosmos I & II*; Crumb does not specify in which piece(s) this idea is musically materialized. The analysis of

[46] There are a number of DVD performances of Japanese arts that document not only performances but also rehearsals, e.g., *Nohgakushi* (Tokyo: Wac, 2004, WAC-D525), and *Tsurusawa Seiji: Tatakau Shamisen, Ningen Kokuhō ni Idomu* (Tokyo: NHK enterprise, 2008, NSDS-11874).

musical and extra-musical materials (e.g., titles, performance directions, and symbolic notations) suggests that there are three means to express "timelessness" in the work. Chapter 5 discusses Takemitsu's learning of Japanese concepts of time and its assimilation in *Rain Tree Sketch*, *Rain Tree Sketch II*, and *Orion*. Interviews in which he discusses his idea of "non-Western" rhythm as well as the manuscripts of *Rain Tree Sketch II* and *Orion* are consulted. These previously unstudied materials suggest how rhythmic and timbral subtleties in performance may communicate the essence of *ma*. This chapter also examines how *ma* works between two performers, referring to my performing experience with the cellist Marta Albright. Chapter 6 deals with performance. Through a comparison of recordings, this chapter examines how performance can be involved in the communication of nonlinear concepts of time and possibly influences the listener's understanding of the temporality of work.

Chapter 2: RESEARCH CONTEXT

This chapter reviews existing scholarly literature discussing musical time and temporality (2.1), the notation and performance of twentieth-century music (2.2), the music of Cage (2.3), Crumb (2.4), and Takemitsu (2.5).

2.1 Literature on Musical Time and Temporality

The emergence of non-progressive, non-directed time in twentieth-century music has attracted scholarly attention; yet, the study of musical time and temporality is a relatively new field of research. Traditionally, music scholarship developed through a discourse on compositional methods, pitch relationships, structure, and form. After atonal music established its place in music history, the main interest of twentieth-century composers shifted towards the exploration of new rhythms and timbre. Scholars became more aware of issues related to musical time, such as motion, change, stasis, continuity, discontinuity, progression, succession, linearity, nonlinearity, and so forth. In discussing the musical characteristics that affect the temporality of a work, terms, such as teleological/anti-teleological, linear/spatial, and linear/nonlinear, have been used.

Leonard B. Meyer (1956, 1963) categorizes music as teleological or anti-teleological.[47] In his term, "teleological" music (e.g., the music of Bach, Haydn, Wagner or Bartók) has a clear sense of direction and goal, whereas "anti-teleological" music (e.g., the music of the avant-garde) has no sense of direction. He explains that anti-teleological music:

> …directs us toward no points of culmination—establishes no goals toward which to move. It arouses no expectations, except presumably that it will stop. It is neither surprising nor, once you get used to its sounds, is it particularly

[47] Meyer, *Emotion and Meaning in Music*; idem, "The End of the Renaissance?" *The Hudson Review* 16, no. 2 (Summer, 1963), 169-186.

> startling. It is simply *there*. And this is the way it is supposed to be. Such directionless, unkinetic art, whether carefully contrived or created by chance, I shall call *anti-teleological* art. [48]

He continues:

> Because it presents a succession rather than a progression of events, this art is essentially static. There are no points of culmination or of focus. All events are equally important and time, as we ordinarily conceive of it, dissolves. There is only duration.[49]

The differentiation between *succession* and *progression* is important in this context: these phenomena depend on the existence of the causality between events. This aesthetic shift was, he considers, generated by an increased interest amongst avant-garde artists in Oriental philosophy, for example, Cage's interest in Zen Buddhism and his use of chance operations.[50] Meyer asserts, "underlying this new aesthetic is a conception of man and the universe, which is almost the opposite of the view that has dominated Western thought since its beginning."[51] This view is shared by Jonathan Kramer whose theory is discussed later.[52]

Meyer seems to imply that *all* avant-garde music that does not conform to the law of functional harmony is *anti-teleological* and has no culmination point. Cage indeed tried to get rid of the causal relationships between musical events in *Seven Haiku* through the use of chance operations. However, it does not mean that all atonal music lacks climactic moments (e.g., the beginning of "The Magic Circle of Infinity" or the climax in Takemitsu's *Rain Tree Sketch* created by *jo-ha-kyū*).[53] Valuable though Meyer's view is, it is not sufficiently flexible to explain the subtleties of the new temporalities of avant-garde music.

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[48] Idem, "The End of the Renaissance?" 173.
[49] Ibid., 183.
[50] Ibid., 169-186.
[51] Ibid., 174.
[52] Kramer, *The Time of Music*, 384.
[53] These works are discussed in Chapters 4 and 5, respectively.

The composer George Rochberg (1963) makes an analogy between post-Webern music and "the cubist image," alluding to the paintings of Pablo Picasso and his school in which three dimensions are expressed in a horizontal manner.[54] Rochberg uses this "cubist" image to symbolize "the *spatialization* of music," which can be seen in twentieth-century music having no logical progression.[55] This is also an allusion to Henri Bergson's differentiation between *experienced* time and *spatilized* time.[56] Rochberg considers that this spatialization of music is the result of the twentieth-century composers' divergence from tonality and their growing interest in timbral independence. This has necessitated the suppression of pulsation so that timbre can be heard to its fullest capacity. He neatly explains this whole phenomenon:

> The suppression of pulsation radically affects the perception of time in music. The most obvious consequence of the suppression of pulsation is the uncertainty which attends the effort to perceive and to predict the motion of the sounds projected. Lacking the presence of a felt or established beat, this becomes virtually an impossibility…. The suppression of pulsation was necessary to the liberation of time and the emergence of a new order of continuity embracing the discontinuous and the unpredictable. It is in the tendency toward the spatialization of music that the larger purpose of the chief developments of this century reveals itself.[57]

Rochberg's observation of rhythmic aspects posits important phenomenological questions, such as the relationship between our perception of the motion of the sound and the frequency of beats, as well as the relationship between our perception of motion and our temporal expectation. These questions remain to be scientifically investigated, but his observation of the relationship between the listener's physical sensations and expectations accords with common sense. His comment that "[t]he suppression of pulsation was necessary to the liberation of time" indicates that the regularity of beats is perceived as the expression of the Western/English definition of

[54] Rochberg, 1.
[55] Ibid., 6.
[56] See Gunter, 635-36, for the explanation of Bergson's terms. Cf. Chapter 1.
[57] Rochberg, 5-6.

time as an entity that flows regularly. His theory explains why Crumb eliminates a sense of regular beats in his "timeless" pieces. It also applies to Takemitsu's music in which unpredictability is established mainly by irregular rhythm and the use of *ma*.[58] Rochberg also refers to the idea of presenting time as duration:

> In the new music, time as duration becomes a dimension of musical space. The new spatial image of music seeks to project the permanence of the world as cosmos, the cosmos as the eternal present. It is an image of music which aspires to Being, not Becoming.[59]

This resonates with Cage's idea of seeing duration as a common denominator between sound and silence.

Wilfrid Mellers (1964) applies the terminology "spatial" to the music of Cage:

> Since [in *Amores* (1943)] there is no melodic *line* and no modulation the sound-event is, again, spatial rather than temporal. The delicate, tranquilizing pieces have no beginning, middle and end, though the chronometric proportions of sound to silence are calculated.[60]

Perhaps Cage wanted to show the listener this spatial image of music; however, in *Seven Haiku*, the performer is expected to observe the temporal duration specified by notation.

Robert Morgan (1980) sees musical time and space not as opposite, but as inseparable, pointing out that even in tonal music space exists (for instance in intervallic relationships and registral separation).[61] Thus, he asserts, "Any meaningful concept of musical space must incorporate, at some level, the factor of musical time; and equally a meaningful concept of musical time must include that of musical space."[62] He claims:

> The most forceful representation of musical space in the tonal tradition resides in the 'grammatical' attributes of an underlying musical system, in modern

[58] See Chapter 4 and 5 for more detailed discussion of this.
[59] Rochberg, 10.
[60] Mellers, 178.
[61] Morgan, 527-538
[62] Ibid., 530.

> music, the spatial characteristics appear to be more "on the surface" and are, in fact, more closely related to those textural matters.[63]

His description of "spatial" twentieth-century music also contains similar keywords to Meyer's description of anti-teleological music:

> There are no preordained relationships among its parts; thus all relationships must be defined contextually, by the composition itself. Such compositions normally have a markedly "assertive" quality, since their essential relationships are defined by surface emphasis of one kind or another (particularly repetition). The structure seems *"frozen."* It is as if a distinct segment of musical space is carved out for the purposes of a particular musical statement, which seems to hang *motionless* within it. Musical progression becomes largely a function of rhythm and surface manipulations of the available pitch fund. Structural motion, however at least in the traditional sense, is *suspended*; the music "moves" only through opposition: one fund is abruptly replaced by another, with no real mediation or "modulation." An "art of transition" (to borrow Wagner's famous phrase) is replaced by one of "juxtaposition." Such music, cutting back and forth among essentially *static* "blocks" of sound, produces a pronounced *spatial* effect.[64]

Frozen, motionless, suspended motion, static, and spatial—these adjectives are well suited to a description of Crumb's "timelessness" of time.

As mentioned in Chapter 1, the emphasis on spatialized time and the spatial image of music was criticized by the theorist Lewis Rowell (1996).[65] Since then, the scholarly trend has shifted towards a discussion of different modes of temporalities, and Jonathan D. Kramer's categorization has become one of the most frequently used models among scholars and commentators of twentieth century music.[66]

Kramer (1981) introduces a classification of different temporalities which are developed from Meyer's categorization of music as teleological or anti-teleological music.[67] Kramer first divides temporality into two opposing categories, linear and nonlinear. These are further divided into five categories: linear, non-directed linear,

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[63] Ibid.
[64] Ibid., 534. Emphasis mine.
[65] Lewis, 68. Cf. Chapter 1.
[66] Cf. Chapter 1.
[67] Kramer, "New Temporalities in Music," 539-556.

multiple time (multiply-directed time), moment time, and vertical time. Compositions in non-directed linear time are "in constant motion created by a sense of continuity and progression, but the goals of the motion are not unequivocally predictable,"[68] and those in multiple time are discontinuous but embody "reorderd linearity."[69] Moment time, a type of nonlinearity, derives from Stockhausen's definition of "moment form" addressed in his article "Momentform."[70] Kramer explains the difference between multiple time and moment time:

> [A] composition in multiple time has a clear beginning (or several unmistakable beginnings), which may or may not occur at the start of the piece, a work in moment time does not really begin; rather, it simply starts, as if it has been going on all along and we happened to tune in on it. A multiple form has one or several final cadences, not necessarily at the close of the piece; a moment form ceases rather than ends. At its close we have the impression of having heard a series of minimally connected sections—called moments—that are a segment of an eternal continuum. The moments may be *related*—motivically, for example—but not *connected* by transition. The crucial attribute of moments is their self-containment. If a moment is defined by a process, that process must reach its goal, must be completed, within the confines of the moment. If, on the other hand, a section leads to another section (whether adjacent to it or not), then it is neither self-contained nor in moment time. …The extreme of moment time is "mobile form," in which sections of the piece may be put together in any of a number of possible orderings from one performance to the next, perhaps within certain restraints.[71]

Vertical time, which is also nonlinear, lacks phrases, progression, goal direction, movement, and contrasting rates of motion:

> A vertical piece does not exhibit cumulative closure: it does not begin but merely starts, does not build to a climax, does not purposefully set up internal expectations, does not seek to fulfil any expectations that might arise accidentally, does not build or release tension, and does not end but simply ceases. [72]

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[68] Idem, "New Temporalities in Music," 542. He categorizes Crumb's *Echoes of Time and the River* (1968) into this group.
[69] Ibid., 545. He claims that Stravinsky's *Symphonies for Wind Instruments* (1920) has to be heard as moment time.
[70] Karlheinz Stockhausen, "Momentform," in *Texts zur elektronischen und instrumental Musik*, 1 (Cologne: DuMont, 1963): 189-210. Cited in Kramer.
[71] Kramer, "New Temporalities in Music," 546.
[72] Ibid., 549. Examples are seen in Steve Reich's *Come Out* (1966) or Frederic Rzewski's *Les Mountons de Panurge* (1969). These are minimalistic works. He

Thus, what constitutes a vertical piece is infinite "now."[73] In his 1987 article, Kramer further explains "moment form" in detail.[74] He states that in moment-form pieces (e.g., some works of Karlheinz Stockhausen) "the music consists of a succession of self-contained sections that do not relate to each other in any functionally implicative manner" and "[c]ontinuity is no longer part of musical syntax, but rather it is an optional procedure."[75] He continues:

> If moments are defined by internal consistency, it follows that they can be of any length (practically speaking, from a few seconds to several minutes). Thus proportions are indeed important in moment-form pieces.[76]

In Chapters 3, 4, and 5, I will consider how Kramer's model can be applied to the description of the characteristics of the selected works.

A noteworthy perspective on continuity and discontinuity can be found in Christopher F. Hasty's article "On the Problem of Succession and Continuity in Twentieth-Century Music" (1986). In Chapter 1, I stated that nonlinearity is a type of *continuity*. Hasty shares a similar idea, arguing that there is no pure discontinuity no matter how often music sounds disrupted.[77] He states that even though it would be possible to create *relative* discontinuity with loosely related musical events, (e.g., in Cage's works created by chance operations), it would be impossible to locate "pure discontinuity" as "[t]here is no bare 'now' on the onset of the tone divorced from what precedes and follows it."[78] As Kramer points out, this co-existence cannot be

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clarifies that this type of music (vertical pieces) are often called "process music," sometimes "trance music."

[73] Ibid.

[74] Idem, "Moment From in Twentieth Century Music," *The Musical Quarterly* 64, no. 2 (April 1987): 177-194

[75] Ibid., 179.

[76] Ibid., 182.

[77] Christopher F. Hasty, "On the Problem of Succession and Continuity in Twentieth-Century Music," *Music Theory Spectrum* 8 (Spring 1986): 58-74.

[78] Ibid., 61.

avoided because "[w]e *simultaneously* experience musical time and ordinary, or 'absolute' time."[79]

When musical ideas or events are organized and presented as a "work," the music inevitably has a beginning and an end simply because it takes place in a framework of *time*. Similarly, Justin London sees time as "[t]he essential medium for music and musical performance."[80] However, the beginning and ending of a movement or a work as notated in the score and those that are observed by a performer do not necessarily coincide with those that are recognized by the listener. For instance, Cage's *Seven Haiku* starts with approximately two seconds of a rest. The entire duration of the first movement is marked as 12 seconds, thus, in notation, as well as in a performer's awareness, the beginning and end take place at 0" and at 12", respectively.[81] However, unless following with a score, the listener might perceive the first sound of the movement to be the beginning. Likewise, as the movement finishes with approximately three seconds of a rest, the ending perceived aurally by the listener might be different from the one marked in the score or that realized by the performer. These differences may exist; nevertheless, music does not escape from linear, absolute time, which is marked by a beginning and an end.

Henry F. Orlov (1979) conducted phenomenological research into the listener's perception of the duration of a piece of music:

> The quality of musical experience and its seeming duration depend not only on the work and on the personal associations it evokes in the listener, but also on his mood an perceptibility, which may change during the course of perception…One has to be thoroughly trained in order to interpret the message

[79] Kramer, *The Time of Music*, 3.
[80] London, "Time," *Grove Music Online*. Cf. Chapter 1.
[81] Mathematical calculations suggest that the movement last slightly longer than 12 seconds. See Chapter 6.

> of a work of art properly, to be able to discern its relevant elements and to understand them in a cultural context.[82]

Orlov's insight into the relationship between the listener's awareness of a cultural context and their understanding of the work is relevant to my understanding of musical time and temporality: awareness of temporal experience cannot be separated from the individual's subjective, personal relation and intuitive reaction to time.

Although tonal works are outside the scope of this dissertation, some scholarly perspectives on the temporalities of pre-twentieth-century works give useful insights into the characteristics of linearity and nonlinearity. Robert S. Hatten (2006) demonstrates how composers of tonal music use the order of musical events to affect the listener's temporal experience.[83] Because the *order* of musical events stimulates the listener's memory and expectation, it is an important factor in communicating the direction and progression of musical ideas. An example of this is sonata form: as the two themes are introduced, *developed*, and then recapitulate. The listener can anticipate where music is going and identify which part of the work they are listening to.

Karol Berger (2007) argues that the composer's pursuit of musical progression is linked to the dawn of modernity. He compares the music of Bach and Mozart, and claims that the former is concerned with cyclic time, celebrating the eternity of God, while the latter with linear time.[84] This challenges the validity of Kramer's claim,

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[82] Henry F. Orlov, "The Temporal Dimensions of Musical Experience," *The Musical Quarterly,* 65, no. 3 (July 1979): 368-78.
[83] Robert S. Hatten, "The Troping of Temporality in Music," in *Approaches to Meaning in Music*, edited by Byron Almén and Edward Pearsall (Bloomington: Indiana University Press, 2006), 62-75.
[84] Berger, *Bach's Cycle, Mozart's Arrow*.

"Western thought has for centuries been distinctly linear," and Kramer's dichotomy, linking linearity with West and nonlinearity with East.[85]

Scholars have studied how musical characteristics, such as pitch constructions (i.e., tonality and atonality), rhythmic constructions, motivic relationships, syntactical relationships, and the order of musical events, affect the temporality of a musical work. However, the degree to which different interpretations of a work may affect the listener's perception has not, so far, been widely explored.

2.2 Literature on the Notation and Performance of Twentieth-century Music

This section reviews the relationship between notation and interpretation, including the literature on the execution of rhythm as the duration of sounds and rests can be notated and perceived in the form of rhythm.

Performers who have had conservatory or other institutional trainings will have dealt with the performance tradition of *werktreue*—fidelity to the work—at some point in their musical education and career. When a score yields several interpretive possibilities, for instance, the paradox found in Cage's *Seven Haiku* or Takemitsu's notation using Western musical symbols for the expression of the Japanese concept of *ma*,[86] what should the performer prioritize in their decision-making process? The performer has to decide whether to follow the composer's instruction precisely as notated in the score or whether they should aim to communicate the composer's "intention" as far as these can be understood.
Lydia Goehr (1992) traces the history of "work concept" in relation to the tradition of *werktreue* and asks whether a realization of the score should be the only focus of the

[85] Kramer, *The Time of Music*, 16. Cf. Chapter 1.
[86] Cf. See Chapter 1.

performer or whether they should seek for an alternative performance ideal.[87] Nicholas Cook (2003) and Lawrence Kramer (2010) have advocated a view of the score not so much as *text* to be followed slavishly, but as *script*—a series of instructions which can stimulate a range of possible responses in performance.[88] Lawrence Kramer states:

> The musical work is always a work in progress. The score still maintains an indispensable priority in its performance, in just what sense remains to be seen, but this priority does not involve the subordination or subservience of performance to a preexisting intention. The score, we might say with a slight change of emphasis, maintains a priority *in* but not *over* performance.[89]

This opens up the wider question of what it means to "interpret" a musical "work."

The very nature of "interpretation" of twentieth-century music has been much debated. Complicated rhythms, intricate dynamics, and detailed performance markings can sometimes seem overwhelming, giving an impression that there is no room for a performer's freedom and creativity. Roger Smalley (1969-1970) states that in the performance of the music of Anton von Webern and post-Webern composers:

> [i]f a performer realises accurately all the indications in the score then his performance will be an authentic projection of the composer's intentions. This is because…the dynamics, phrasing, articulation and tempo of the music are no longer adjuncts to the pitch-structure but are an integral part of the work and must be realised with an equivalent degree of accuracy.[90]

Edward T. Cone (1968) holds a similar view:

> …the more complex any musical dimension becomes, the fewer liberties of interpretation it permits….When one realizes that the same [electronic] composers are often investigating the use of microtonal or other non-standard scales and of arithmetically intricate temporal ratios, it is easy to understand why music so put together would demand, not "interpretations," but maximum

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[87] Lydia Goehr, *The Imaginary Museum of Musical Works: An Essay in the Philosophy of Music* (Oxford: Clarendon Press, 1992).
[88] Cook, "Music as Performance," 204-14; Lawrence Kramer, *Interpretive Music* (California: University of California Press, 2010).
[89] L. Kramer, 259.
[90] Roger Smalley, "Some Aspects of the Changing Relationship between Composer and Performer in Contemporary Music," *Proceedings of the Royal Musical Association* 96 (1969-1970): 75.

> accuracy of every detail—an impossibility in the case of fallible human performance.[91]

Susan Bradshaw (1998) regards accuracy as "an exemplary way to begin when it comes to playing the foundations for interpretive performance."[92]

Occasionally, the performer is faced with a situation in which the accurate rendition of "all the indications in the score"[93] is not humanly possible. This is seen in *Seven Haiku* where the musical events are specified in terms of absolute time, which are unachievable. In such cases, a performer has to be selective in choosing which of the instructions to follow. Consequently compromises are inevitable. In my view, this is part of building a valid "interpretation," even though it cannot achieve the *accurate* rendition of "all the indications in the score."

Peter Hill (2002) cautions against the danger of taking twentieth-century composers' notation at face value and performing their music without expression. He reminds us of Webern's *Variations*, op. 27, in which the composer intended a performance to involve "a constant interplay of rubato and light-and-shade" without specifying it in notation.[94] Hill cites experience of performing for Messiaen: The composer did not want a precise, "mechanical" rendition of his works. He demanded that his rhythm and phrasing should be supple, regardless of the highly complicated appearance of his notation.

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[91] Edward T. Cone, *Musical Form and Musical Performance* (New York and London: W.W. Norton & Company, 1968), 37-38.
[92] Susan Bradshaw, "A Performer's Responsibility," in *Composition-Performance-Reception: Studies in the Creative Process in Music*, edited by Wyndham Thomas (Aldershot: Ashgate, 1998), 65.
[93] Smalley, 75.
[94] Peter Hill, "From Score to Sound," in *Musical Performance: A Guide to Understanding*, edited by John Rink (Cambridge: Cambridge University Press, 2002), 132. Peter Stadlen, a Webern's pupil, reports Webern's idea on the work's interpretation in the preface to *Variationen für Klavier*, op. 27 (Vienna: Universal Edition, 1979). Hill assumes that the desired expression could have been "too subtle to specify, or perhaps too dependent on the instincts of individual pianists (Webern included) to make mandatory."

The internationally acclaimed pianist Charles Rosen (1998) provides a useful maxim for interpreting twentieth-century music: "With relatively new works, what is crucial is to determine where an absolutely strict rendition is obligatory and where a greater freedom—of rhythm, tone colour and phrasing—is appropriate,"[95] commenting that the performer's liberty is permissible when "it does not substantially alter the composer's conception but makes it more effective."[96]

Thus Rosen sees it the performer's task to determine where precision is required and where freedom is called for by reading through the score. However, there are problems with the notation and execution of rhythm. Firstly, because Western musical symbols may be insufficiently flexible to reflect the rhythmic nuances that the composer wished to achieve. Secondly, the ideal of rhythmic accuracy changes over periods of time because it reflects the cultural, technological context in which a work is produced or performed. Alexander Evan Bonus (2010) argues:

> It is only since the modern age—which for some constitutes a daily "chronarchy" of precise mechanical "time" constraints, moving to ever increasing mechanical "rhythms"—that performing like a clockwork metronome is commonplace. An implicit metronomic hegemony over musical time has indeed taken place during the modern century, and it has seemingly overturned the primacy of more subjective, variable senses of musical temporality.[97]

Bonus uses the term "musical time" to represent the flexibility of humanly determined time as opposed to mechanically determined metronomic time. The pre-twentieth-century musicians Johann Nepomuk Hummel (1778-1837), Hector Berlioz (1803-

[95] Charles Rosen, "Freedom of Interpretation in Twentieth-century Music," in *Composition-Performance-Reception: Studies in the Creative Process in Music*, edited by Wyndham Thomas (Aldershot: Ashgate, 1998), 68
[96] Ibid., 72.
[97] Bonus, 533.

1869), and Joseph Hoffmann (1876-1957), regarded metronomically controlled rhythms as artificial, cold, and inexpressive.[98] However, ideas changed later:

> Yet beginning in the twentieth century, and proceeding into the twenty-first, many amateurs and professionals are not only instructed, encouraged, and required to play and practice with metronomes of much greater automatical precision, but can play automatically in both rehearsals and concerts—click by click, in quarters, sixteenths, thirty-seconds, and beyond—with the ease, consistency, and accuracy of cold, calculating machines.[99]

As an example of this "automatical precision," Bonus cites the musical-time exercises by Emile Jaques-Dalcroze (1921) with the aim of training students to execute rhythm with metronomic precision.[100] The twentieth-century scholar C. E. Seashore (1925) recognized that metronomic technical precision was a requirement for a high standard, artistic performance:

> The unlimited re-sources for vocal and instrumental art lie in artistic deviation from the pure, the true, the exact, the perfect, the rigid, the even and the precise...The variation from the exact which is due to incapacity for rendering the exact is, on the whole, ugly. The artist who is to vary effectively from the exact must know the exact and must have mastered its attainment before his emotion can express itself adequately through a sort of flirtation with it.[101]

Here, Seashore is speaking of the *exact* timing in terms of scientific and mechanic precision and regards incapacity for achieving the exact "ugly."[102]

In my personal experience having had piano lessons in Japan, the U.S., and the U.K., practicing with a metronome was occasionally *recommended* as a guide to achieving rhythmic precision and maintaining a consistent tempo; however, an expressive, "musical" performance was always preferred to a mechanical, inflexible

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[98] Ibid., 86, 166, 144.
[99] Ibid., 532.
[100] Ibid., 444.
[101] C. E. Seashore and Milton Metfessel, "Deviation from the Regular as an Art Principle," *Proceedings of the National Academy of Sciences of the United States of America* 11 (Sept. 15, 1925): 538. Cited in Bonus, 492.
[102] Bonus, 492.

performance, unless the music required such a performing style. One of my piano teachers Vitaly Margulis (2002) states:

> There is dead rhythm when all the beats in a measure equal one another. There is living rhythm when each beat in a measure has its own function and duration. There is the body's rhythm. Learn from it!...Music without pulse is like a sounding corpse. It resembles living music just as a dead body resembles a living one. Out of respect no one dare call it "boring". Alas it is called "wise."[103]…Metronome numbers written into the text are always wrong, because there is no absolutely correct tempo. Only the ratio between the parts of music is absolute.[104]

Twentieth-century pianist and pedagogue Margulis regards metronomic rhythms as "dead" and "boring."

This raises a question about objectivity and subjectivity in relation to rhythm and time. In Bonus's view, the scientific, mechanical approach to rhythm in the twentieth-century is the antithesis of the subjective approach in the pre-twentieth centuries. However, it may be asked whether the "musical time" of pre-twentieth-century repertoire and performance was ever completely subjective. In my view, the subjectivity that Bonus discusses has been accepted only within the limit of objectively observed, measured time. The early *Encyclopædia Britannica* (1778-83) states:

> ...all the bars should be perfectly equal, and all the times contained in each bar perfectly equivalent to another. Now, to render this equality sensible, every bar is struck, and every time distinguished, by a motion of the hand or foot; and by these motions the different values of notes are exactly regulated, according to the genius and character of the bar.[105]

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[103] Vitaly Margulis, *Bagatelles, Op. 7: Thoughts and Aphorisms of a Pianist*, translated by Fumiko Hitotsuyanagi (Tokyo: Edition Kawai, 2002), 94-7.
[104] Ibid., 147.
[105] Encyclopædia Britannica. The second edition; greatly improved and enlarged, vol. 9 (Edinburgh, 1778-83), 8612-8613. Cited in Bonus, 12.

"All the bars should be perfectly equal," and "the different values of notes are exactly regulated"—this rhythmic ideal seems to reflect Western, objective orientation to time and belief in the directionality and measurability of time, which was discussed in Chapter 1.

The Western objective orientation to time can also explain why *proportion* becomes an important issue in the construction and performance of rhythm in the Western art music tradition. In his 1618 treatise *Compendium Musicae,* the philosopher René Descartes states:

> Time in sound must consist of equal parts, for these are perceived most easily according to [the sense of small divisions], or it must consist of parts which are in a proportion of 1:2 or 1:3, this progression cannot be extended, for only these relations can be easily distinguished by the ear...if time values were of greater inequality, the ear would not be able to recognize their difference without great effort, as experience shows.[106]

According to Bonus, during the nineteenth century, a performer who can achieve a good musical proportion was called a good *timeist*:

> [A] performer who "accurately" or "perfectly" expressed the musical proportion, meter, and accent was considered a good *timeist*—pedagogues and critics used the term throughout the nineteenth century; it curiously and perhaps ominously receded by the twentieth century.[107]

The attention to proportionality in music is still present in the idea of the twentieth-century scholar Margaret Mary Barela (1979) who considered that the execution of rhythm required the performer to have an awareness of proportional and mental rhythmic groupings:

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[106] René Descartes, *Compendium Musicae* (Ms., 1618; Utrecht: Jansson, 1650); translation by Walter Robert ([Rome]: American Institute of Musicology, 1961), 13. Cited in Bonus, 15.

[107] Bonus, 19. He states that In *A Musical Dictionary* (1812), *timeist* is defined as "A performer who preserves a just and steady time." "TIMEIST" in H. W. Pilkington, *A Musical Dictionary* (Boston: Watson & Bangs, 1812), 77.

> Rhythm is a proportional phenomenon. Rhythmic grouping is a *mental fact*, not a physical one. In other words, the mind has a tendency to simplify and organize what it perceives. It compensates for any slight irregularities which may exist in the duration of a rhythmic group. The mind draws relationships where it can, seeking order in apparent chaos. Awareness of this gives the performer more freedom. He can then play with illusions of time based on a highly developed sense of proportion. He controls the rhythmic motion making adjustments when necessary: tempo fluctuations (rubatos, accelerandos, or ritardandos), or even compensation for a relatively inappropriate sound. Ideally, as he plays, he adjusts his sound in relation to what preceded in order to correspond to a sound image derived from a study of the composition. If he makes every effort to reveal in his performance *his conception* of the structure, then his chances of convincing his audience are greatly improved.
>
> Any structural ambiguities in the score are left to the performer to decide upon and communicate through his sense of form and timing. And what is a performer concerned with in dealing with problems of timing if it is not the question of proportions? Through timing, his interpretation of the structure is revealed *on several architectonic levels,* not just one. The performer determines the *pace* at which he wants his listener to follow without missing the context. [108]

She argues that good "timing" relies on the performer's understanding of form and proportions.

Similarly, the twentieth-century composer and critic Edward T. Cone (1968) discusses musical proportion from the perspective of the value of the whole and the part:

> [V]alid performance depends primarily on the perception and communication of the rhythmic life of a composition. That is to say, we must first discover the rhythmic shape of a piece—which is what is meant by its form—and then try to make it as clear as possible to our listeners. I have already tried to show how certain general rhythmic principles underlie common formal units—the phrase, the period, the three-part song-form…Such a comprehensive form can be made clear in performance, however, only by virtue of another principle: that the whole is more important than any of its parts. Any conflict of interest must be resolved by suppressing the formal claims of the part in favor of those of the whole.[109]

In the context of tonal music, Cone discusses how to shape a phrase in order to communicate the form of the composition to the listener. His "structure to

[108] Margaret Mary Barela, "Motion in Musical Time and Rhythm," *College Music Symposium*, 19, no. 1 (Spring, 1979), 85.
[109] Cone, 38-9.

performance" approach has been criticized by Nicholas Cook (2001) who considers that it "allows no space for a performer's creativity," and that "[u]ltimately, it would seem, the job of a performer is to convey to the audience the structure embodied in the score."[110] The performer's awareness of structure is indispensable for illuminating the work as a coherent identity; however, the performer can choose not to make the structure of a work explicit. Cook (2014) also believes that there are "situations where the performer's role is precisely not to bring out structure."[111]

My concern with Cone's approach is his premise that the whole is more important than the part. Hasty (1986) suggests that this aesthetic value can be cultural:

> By concentrating on the wholeness of temporal development and the possibility of relating events, I do not mean to deny the *relative* discontinuity of much twentieth-century art or the difficulties this art presents to your comprehension. The dialectic of whole and part, of similarity and difference, create a vast field for the play of form. *Styles may arise in which the part is valued over the whole.*[112]

Cone's concern may reflect the Western aesthetic preference for the whole over the part: fugues, counterpoint writing, and sonata form all indicate Western composers' predilections for overall architecture and formal coherence. If so, his approach may not be "effective" in the performance of a composition in which the part is valued over the whole.

Japanese culture values the part over the whole as the Japanese critic and anthropologist Shūichi Katō (2007) observes:

> The emphasis on the present moment (=the now) placed in Japanese tradition can be interpreted as one of the representation of cultural aesthetics valuing the

[110] Nicholas Cook, "Off the Record: Performance, History, and Musical Logic," in *Music and the Mind: Essays in Honour of John Slobada*, edited by Irène Deliège and Jane W. Davidson (Oxford: Oxford University Press, 2001), 294.
[111] Cook, *Beyond the Score*, 92. Also see William Rothstein, *Phrase as Rhythm in Tonal Music* (New York: Schirmer, 1989).
[112] Hasty, 58-74. Italics mine.

> part over the whole. In this context, the part is not the division of the whole, but the assemblage of the parts results in the formation of the whole.[113]

Furthermore, he considers that the Japanese appreciation of *ma* represents the Japanese value of the now and the part.[114] In Chapter 1, the importance of the now in Japanese culture was discussed in conjunction with the spiritual experience of *satori*. During *ma*, the performer is not concentrating on the continuity of the work (i.e., how to proceed from point A to point B), the proportion, or the balance between the whole and the part, but on the present moment, the part. This means that the duration of *ma* cannot be calculated intellectually in relation to the whole, nor could it be determined by a mathematical, scientific method. This aesthetic reflects the Japanese understanding of time as *immeasurable*, exposing a fundamental difference underlying the Western and Eastern approaches to rhythmic precision.

Stephen Davies' idea on "good" interpretation (2001) highlight the need for the performer to understand the cultural context of the music:

> The proper interpretation of a score requires knowledge both of conventions for the notation and of the performance practice shared by the composer with the musicians to whom the score is directed. Not everything recorded in the score has the force of a work-determinative instruction, and some essential elements not registered in the score are implicit in the performance practice. Accordingly, interpretation of the instructions that scores encode is not always easy. To make matters worse, scores may be incomplete or ambiguous. This need not be a deficiency where they serve merely as mnemonics for pieces that are already known. It does create a problem, though, where scores are the work's primary source. In this case, ambiguities or incompleteness in the score can obscure the identity of the piece it specifies.[115]

In my view, this includes an understanding of a composer's idiosyncratic idea of rhythm.

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[113] Shūichi Katō, *Nihon Bunka ni Okeru Jikan to Kūkan* (Tokyo: Iwanami shoten, 2007), 235. Translation mine.
[114] Ibid., 81.
[115] Stephen Davies, *Musical Works & Performances: A Philosophical Exploration* (Oxford: Clarendon Press, 2001), 3.

Chapter 6 examines the relationship between notation and performance, considering if a performer realizes all the notated instructions, the temporality that the composers wished to convey can be communicated to the listener. Chapter 7 discusses the issue of performance ideal raised by Goehr.

2.3 Literature on John Cage

The literature on Cage is extensive.[116] It includes the composer's own writings and interviews as well as critical essays and biographies written by scholars and journalists. In these texts, Cage's learning of Zen and attendance at Daisetz Suzuki's lectures at Columbia have been frequently discussed. However, Cage's unreliable memory and scholars' reliance on Cage's interviews as the only source of reference have caused confusion about the dates and periods of his lecture attendance. How Blyth's *Haiku* influenced Cage has not been fully studied. Furthermore, issues related to the performance of Cage's works have also been studied; how performers deal with Cage's notation has not been widely discussed.

2.3.1 Cage's Writings and Interviews

Cage's writings include: *Silence* (1961), *Diary A Year From Monday* (1967), *M* (1973), *Empty Words* (1979), *Themes and Variations* (1982), *X* (1983), and *I-VI* (1990).[117] It is important to remember, as pointed out by David Patterson (2002), that

[116] The texts discussed in this section are directly related to the research questions dealt with in Chapter 3. Other aspects of Cage's music, including his compositional techniques, style, aesthetics, relationships with other musicians and artists, political attitude, and so forth, have been discussed since the 1930s. See Appendix II for texts dealing with these topics.

[117] John Cage, *Silence*: *Lectures and Writings* (Middletown: Wesleyan University, 1961); idem, *A Year From Monday* (Middletown: Wesleyan University, 1967); idem,

Cage did not arrange the order of the texts chronologically in these essays.[118] *Notation*, compiled by Cage, is a collection of manuscripts of twentieth-century music, containing George Crumb's *Five Pieces* for Piano (1962), *Eleven Echoes of Autumn* (1962), the sketches of *Night Music* (1963), and Tōru Takemitsu's *Sonant* (1965).[119] Richard Kostelanetz has also published a collection of Cage's articles which are not included in the books edited by Cage himself: "Defence of Satie (1948)" and "Satie Controversy (1951)," the key texts in this project, are contained in *John Cage: Documentary Monographs in Modern Art* (1970).[120] Kostelanetz' other books containing Cage's writings include: *John Cage: An Anthology* (1991), *John Cage: Writer* (1993), and *John Cage (ex) plain(ed)* (1996).[121]

Cage's interviews are extensively available. Here, I list some of the key texts in which Cage discusses his experience of Zen. In an interview with Roger Reynolds (1962), Cage mentions that he started Oriental studies in 1947, but Suzuki's name is not mentioned.[122] Suzuki's name appears in an interview with Michael Kirby and Richard Schechner (1965), and Cage states, "I found through Oriental Philosophy, and my work with Suzuki…" around 1945, 46, and 47.[123] Anecdotal episodes are

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M (Middletown: Wesleyan University, 1973); idem, *Empty Words* (Middletown: Wesleyan University, 1979); idem, *Themes and Variations* (New York: Station Hill Press, 1981); idem, *X* (Middletown: Wesleyan University, 1983); idem, *I-VI* (Cambridge, Mass.: Harvard University Press, 1990).

[118] David Patterson, "Words and writings, " in *The Cambridge Companion to John Cage*, edited by David Nicholls (Cambridge: Cambridge University Press, 2002), 85-99.

[119] John Cage, *Notations* (New York: Something Else Press, 1969).

[120] Richard Kostelanetz, ed. *John Cage: Documentary Monographs in Modern Art* (New York: Praeger Publisher, 1970).

[121] Idem, *John Cage: An Anthology* (New York: Da Capo Press, 1991); idem, *John Cage: Writer* (New York: Cooper Square Press, 1993); idem, *John Cage (ex) plain(ed)*, (New York: Schirmer Books, 1996).

[122] Robert Dunn, ed. *John Cage* (New York: Henmar Press, 1962), 47.

[123] Michael Kirby and Richard Schechner, "An Interview with John Cage," *The Tulane Drama Review* 10, no. 2 (Winter 1965), 50-72. This interview might have been the first to cause confusion in scholarship.

located in an interview with Paul Cummings (1974), in Daniel Charles's *For the Birds* (1981), Cole Gagne and Tracy Caras' *Soundpieces: Interviews With American Composers* (1982), Richard Kostelanetz's *Conversing with CAGE:* (1987) and its second edition (2003), an interview with Laurie Anderson (1992), Geoff and Nicola Walker Smith's *American Originals: Interviews with 25 Contemporary Composers* (1994), William Duckworth's *Talking Music: Conversations with John Cage, Philip Glass, Laurie Anderson, and Five Generations of American Experimental Composers* (1999), and Peter Dickinson's *Cage Talk: Dialogues with and about John Cage* to name a few.[124] Dickinson's work is based on the series of interviews starting in 1987, which he conducted for a BBC documentary on Cage. Dickinson comments on Cage's skill in narrating his story:

> As an interview subject, Cage was a consummate performer, a virtuoso with skills worthy of study in their own right. He knew precisely how to recycle familiar material, when to refer his interviewer to sources elsewhere, and how to sidestep awkward issues in a most ingratiating and ingenious way. But occasionally his guard slipped and he provided information from a different angle.[125]

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[124] John Cage and Paul Cummings, "Oral History interview with John Cage on 1974 May 2," Archives of American Art, Smithsonian Institution. <http://www.aaa.si.edu/collections/interviews/oral-history-interview-john-cage-12442> Last accessed on May 2, 2013; John Cage, *For the Birds: in conversation with Daniel Charles* (Boston and London: Marion Boyars, 1981); Cole Gagne and Tracy Caras, "John Cage," in *Soundpieces: Interviews With American Composers* (Metuchen, N.J. and London: The Scarecrow Press, 1982), 69-86; Geoff Smith and Nicola Walker Smith "John Cage" in *American Originals: Interviews with 25 Contemporary Composers* (London and Boston: Faber and Farber, 1994): 71-92; "Interview of John Cage: Laurie Anderson," <http://www.jimdavies.org/laurie-anderson/work/interviews/cage.html>, accessed on 19 June 2013;William Duckworth, *Talking Music: Conversations with John Cage, Philip Glass, Laurie Anderson, and Five Generations of American Experimental Composers* (New York: Da Capo Press, 1999); Richard Kostelanetz, *Conversing with CAGE* (New York: Limelight Editions, 1987); idem, *Conversing with CAGE: second edition* (New York and London: Routledge, 2003); Peter Dickinson, ed, *Cage Talk: Dialogues with and about John Cage* (Rochester: University of Rochester Press, 2006).

[125] Dickinson, 1.

2.3.2 Cage and Zen

Scholars began to associate Cage with Zen from the 1960s onwards. Van Meter Ames (1960) introduces Cage as one of the modern composers inspired by Zen, and claims that its influence is shown in his use of a prepared piano.[126] This association is questionable since *Bacchanale* (1938) for prepared piano was composed much earlier than his serious acquisition of Zen.[127] Ames' view might be the result of an image of Cage as a composer influenced by "Asian" culture, portrayed by some reviewers, such as Paul Bowles (1943) and Peggy Glanville-Hicks (1948). The former describes the sonority of a prepared piano in *Amores* as "reminiscent of Bali" and "suggestive of the gamelan music of that same island."[128] Glanville-Hicks finds Cage's "affinity with Eastern music is spiritual rather than technical" since his music "retains the Western concept of a beginning and an end, his musical divisions being the breath, the phrase" unlike "[t]he Eastern structural concept is one having no beginning or end."[129] Ames (1960) again refers to Cage in another article reporting American's fascination with Zen, which is perhaps accompanied by a hint of exoticism: "In America, there is no such custom unconsciously inculcating the spirit of Zen. There the response to Zen must come first through hearing and reading about it as something new and strange."[130] Winston L. King's article (1968) reporting how Zen transcends time and how Daisetz Suzuki rejected the ill-conceived image of Zen

[126] Van Meter Ames, "Aesthetic Values in the East and West," *The Journal of Aesthetics and Art Criticism* 19, no. 1 (Autumn 1960): 3-16.
[127] Van Meter Ames, "Current Western Interest in Zen," *Philosophy East and West* 10, no. 1/2 (April-July, 1960): 22-33.
[128] Paul Bowles, "Percussionists in Concert Led by John Cage," *New York Herald Tribune* (8 February 1943), reprinted in *Writings about John Cage*, 22.
[129] Peggy Glanville-Hicks, "…A Ping, Qualified by a Thud," *Musical America* (September 1948), reprinted in *Writings about John Cage*, 31.
[130] Ames, "Current Western Interest in Zen," 25-6.

as a type of mysticism well conveys Zen's status in the Western society, giving a possible explanation of why Cage acted as an advocator of Zen.[131]

Chou Wen-Chung (1971) certainly recognizes an "Orientalist" attitude in Cage's music:

> His philosophy of silence, chance, and indeterminacy is actually a modern American product for which certain external aspects of the Eastern originals served as the stimulant lending a mystic aura of orientalism.[132]

Ellsworth J. Snyder (1970) offers a neutral yet more naïve view than Wen-Chung: "Cage is a new global man: this globalness comes as a hybridization of Western and Eastern ideas."[133] Snyder discusses Cage's life and music in a comprehensive manner, and in his chronological list of the composer's life events, years 1945 to 1947 are assigned to the period of his studies with Suzuki at Columbia, possibly based on his consultation of Cage's interviews by Reynolds and Kirby cited above.[134] This list, adopted also in Kostelanetz's *John Cage: An Anthology* (1991), could have generated confusion in scholarship subsequently.[135] Suzuki did not return to the U.S. until 1950.

Until the beginning of the 90s, scholars were reporting that Cage attended Suzuki's lectures in the late 40s. Michael Nyman (1974, 1999) states that Cage studied with Suzuki in 1947.[136] Paul Griffiths (1981) mentions Cage's learning with Suzuki, but does not specify the year.[137] Peter Gena and Jonathan Brent (1982) also

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[131] King, 217-28; Inada, 171-79.
[132] Chou Wen-Chung, "Asian Concepts and Twentieth-Century Western Composers," *The Musical Quarterly* 57, no. 2 (April, 1971), 224.
[133] Ellsworth J. Snyder. "John Cage and Music Since World War II: A Study in Applied Aesthetics." (Ph.D. diss., University of Wisconsin, 1970). 42-3.
[134] Ibid., 108-9
[135] Kostelanetz, *John Cage: An Anthology* (1991), 36-7.
[136] Michael Nyman, *Experimental Music: Cage and Beyond,* 2nd edition, foreword by Brian Eno (Cambridge: Cambridge University Press, 1999), 51.
[137] Paul Griffiths, *Oxford Studies of Composers (18): Cage* (London: Oxford University Press, 1981). The author simply states, "In the same short essay he makes statements which testify to the importance of his studies of Zen Buddhism under Daisetz T. Suzuki at Columbia University, statements such as 'The responsibility of

claim that in 1945 Cage attended "lectures on the philosophy of Zen Buddhism by Dr. Daisetz T. Suzuki at Columbia University (for two years)."[138] Charles Hamm (1987) states, "In the late 1940s Cage had begun a study of Eastern philosophies with Geeta Sarabhai and of Zen Buddhism with Daisetz T. Suzuki of Columbia University."[139] Another biography, written by David Revill (1992) also states that Cage was attending Suzuki's lectures in the "late forties."[140]

This view started to change around the 90s. James Pritchett (1993) concludes (after consulting the composer's writings) that Cage studied with Suzuki between 1951 and 1952. However, he questions the impact of Zen on Cage's compositional technique:

> The relationship of Cage's composition to his study of Zen Buddhism was not one in which Zen "influenced" him to act and think in certain ways: Cage's understanding of Zen was shaped as much by his compositional concerns as his composition was shaped by his interest in Zen.[141]

He is one of the first scholars who offer a critical view of Cage's study of Zen. Pritchett's work contains both biographical information and musical analyses, and his consultation of Cage's sketches of the *Music of Changes* is remarkable. Daniel Charles (1989-1990) points out that Cage was the only composer to attend Suzuki's lectures on *Kegon* at Columbia in 1951, but claims that the idea of "interpenetration

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the artist consists in perfecting his work so that it may become attractively disinteresting." See p. 22.

[138] Peter Gena and Jonathan Brent, eds, *A John Cage Reader in celebration of his 70th birthday* (New York, London, and Frankfurt: C.F. Peters Corporation, 1982), 186. Their chronological list is based on "similar surveys by Ellsworth Snyder and particularly Anne d'Harnoncourt."

[139] Charles Hamm, "John Cage," in *New Grove Twentieth-century American Masters* (London: Macmillan, 1987), 267.

[140] David Revill, *The Roaring Silence, John Cage: A Life* (London: Bloomsbury, 1992), 108.

[141] James Pritchett, *The Music of John Cage* (Cambridge: Cambridge University Press, 1993), 74.

without obstruction" derives from Zen Buddhism.[142] *Kegon* and Zen are different branches of Buddhism, and scholars' confusion between the two became another issue in this context.

David Patterson (2002) has contributed to this subject the most. He points out some issues regarding the dates of Cage's lecture attendance, mentioning Cage's unreliable recollection and that there is almost no official evidence at Columbia to verify his attendance as well as Suzuki's presence. However, he specifies the date of Suzuki's first public lecture at Columbia as March 1951 as well as the commencement of his course as spring 1952 and provides some colleagues' (e.g., Earle Brown) verification of Cage's attendance. Because Cage does not cite Suzuki's writing in his essays, Patterson concludes, "In the long run, therefore, it is tremendously difficult to gauge the proper weight that Suzuki is to be afforded in Cage's aesthetic development."[143] His findings will be further discussed in Chapter 3.

The Japanese scholar Ryōsuke Shiina (2003) and Sor Ching Low (2007), a scholar in religious studies, both agree that the ideas of "interpenetration" and "unimpededness," often claimed to be Zen ideas by Cage scholars, derive from *Kegon* philosophy. Shiina asserts that Cage attended Suzuki's lecture on *Kegon* in 1951 after consulting Suzuki's biography published by *Chikuma-Shobō* in 1974.[144] Low questions how well these *Kegon* ideas work in his music: "Cage stands on shaky grounds when he attempts to demonstrate how *Kegon*'s operating principle—

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[142]Daniel Charles, "De-Linearizing Musical Continuity: John Cage's Aesthetics of 'interpenetration without Obstruction,'" *Discourse* 12, no. 1 (Fall-Winter 1989-90): 31.

[143] David W. Patterson, "Cage and Asia: history and sources," in *The Cambridge Companion to John Cage*, edited by David Nicholls (Cambridge: Cambridge University Press, 2002), 54.

[144] Ryōsuke Shiina, "John Cage to Zen: Sono Saikentō," *Dōshisha Jyoshi Daigaku Gakujyutsu Kenkyū Nenpō* 54, no. 1 (December 2003): 111.

Emptiness—could also operate in his music."[145] Low further argues that Cage "orientalized" Hinduism and Buddhism to use "the East as a counterfoil against the musical traditions of the old world which he perceived to be materialistic and decadent."[146] John Corbertt (2000) holds a similar view and calls Cage's appropriation of Zen ideas "conceptual Orientalism":

> Through his increasing use of Zen (rather than simple exotic musical material), Cage developed a substantially altered version of Orientalism, and Orientalism based not on the acquisition of new sonic objects but concerned with posing unanswerable or indefinite musical questions. The image of the musical koan—an unsolvable riddle or paradox used in Buddhism to derail rationality—became Cage's badge of honor and he himself became, for many new-art followers and makers alike, a pop-Zen icon. …Indeed, some significant degree of Cage's lasting public image is inextricably bound up in what he referred to (usually in the aggregate, rather than specifically) as "Oriental philosophy," and he was seen by many as being a major figurehead for non-Western thought in America.[147]

Biographies by David Nicholls (2012) and Rob Haskins (2012) as well as Kyle Gann's book on *4'33"* (2010) refer to Patterson's findings with regard to Cage's lecture attendance.[148] While Nicholls (supporting Patterson's view) questions the impact of Zen on Cage's development as a composer,[149] Haskins considers that Zen influenced not only Cage's aesthetics but also his compositional technique:

> Cage's interest in Zen brought about a decisive sea change in his life and thought. His methods led to the gradual abandonment of his own taste in the making of his compositions. The *Concerto for Prepared Piano and Chamber Orchestra* exemplified his new aesthetic orientation.[150]

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[145] Sor Ching Low, "Religion and the Invention(s) of John Cage" (Ph.D. diss, Syracuse University, 2007), 61-81.
[146] Ibid., 5.
[147] John Corbett, "Experimental Oriental: New Music and Other Others," in *Western Music and Its Others: Difference, Representation, and Appropriation in Music*, edited by Georgina Born and David Hersmondhalgh (Berkeley and Los Angeles: University of California Press, 2000), 171-72.
[148] David Nicholls, *John Cage* (Urbana and Chicago: University of Illinois Press, 2007); Rob Haskins, *John Cage* (London: Reaktion Books, 2012); Kyle Gann, *No Such Thing As Silence: John Cage's 4'33"* (New Haven & London: Yale University Press, 2010).
[149] Nicholls, 47.
[150] Haskins, 63.

Gann gives information on Suzuki and on the contents of his lectures, and introduces a story revealing how Cage did not understand the lectures. However, he also defends Cage's appropriation of Zen: "Cage was not a monk or a Zen master or a scholar, but a composer, and artist. Zen, with its concepts and literature, was one of his inspirations."[151] He also explains the history of Zen:

> The Japanese word *Zen* corresponds to *Ch'an* in Chinese and *Dhyana* in Sanskrit, and means "meditation." The movement grew from a combination of Indian Buddhism and Taoism but is considered a specifically Chinese innovation, dating to the time of the legendary figure Bodhidharma, who flourished from A.D. 460 to 534. In later centuries Zen achieved its most pervasive expression in Japanese culture.[152]

Gann's source was Chan's *Source Book in Chinese Philosophy* (1969). There might be some discrepancies here with the views of scholars of Japanese Buddhism in regard to the development of Zen in Japan. This issue will be further addressed in Chapter 3.

Kay Larson's journalistic work (2012) focuses on Cage's study of Zen and provides detailed information on Suzuki's lectures, but it comes without reference. However, she also states that Suzuki lectured on *Kegon* as well as Zen. Don Gillespie (2013) also believes that Cage attended Suzuki's lecture in 1951.[153]

So far, scholarly attention has concentrated on Cage's learning with Suzuki; however, the influence of R.H. Blyth on Cage has not been widely discussed in scholarship. Cage mentions Blyth's books *Haiku* (1949) and *Zen in English Literature and Oriental Classics* (1942) in *Silence*. Patterson notes this and Gann, too, acknowledges the importance of Blyth's influence.[154] Gann introduced Blyth "an English authority on Japanese culture who, starting in 1949, reintroduced the English-

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[151] Gann, 147.
[152] Ibid., 138.
[153] Don Gillespie, "Editorial Foreword," in John Cage, *Haiku* (Frankfurt, Leipzig, London and New York: Henmar Press, 2012).
[154] Patterson, "Cage and Asia," 52.

speaking world to the body of Japanese haiku and vastly increased the popularity of the genre." His contribution to the promotion of Zen in the West is also recognized:

> Before World War II, the common opinion was that Zen was a fundamentally Japanese way of life that the Western mind could not authentically translate into its own experience; Blyth did as much as anyone to make Zen seem thoroughly congenial and universal.[155]

Although Gann briefly calls Suzuki Blyth's "mentor," he does not discuss their meeting in Japan.[156]

2.3.3 Performing Cage's Works

The experience of performing Cage's works and how the performer should approach his music has also been discussed. Michael Nyman (1974, 1999) reports how John Tilbury and David Tudor interpreted *Music of Changes*.[157] John Holzaepfel (1994, 2002) discusses the relationship between Tudor and Cage and comments on Tudor's realization of Cage's music.[158] Campana (2001) points out, "[T]he performer must negotiate considerable differences in notational practice in order to interpret the composer's wishes."[159] Martin Iddon (2013) not only discusses Tudor's realization of *Music of Changes*, but has also compiled correspondence between Cage and Tudor.[160] These texts are further discussed in Chapter 6.

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[155] Gann, 124.
[156] Gann, 140.
[157] Michael Nyman, *Experimental Music: Cage and Beyond,* 2nd edition, foreword by Brian Eno (Cambridge: Cambridge University Press, 1999), 61-2.
[158] John Holzaepfel, "David Turod and the performance of American experimental music, 1950-1959" (Ph.D. diss., City University of New York, 1994); idem, "Cage and Tudor," in *The Cambridge Companion to John Cage*, edited by David Nicholls (Cambridge: Cambridge University Press, 2002), 169-185.
[159] Debora Campana, "As Time Passes," in *Writing Through John Cage's Music, Poetry, and Art*, edited by David Bernstein and Christopher Hatch (Chicago and London: The University of Chicago Press, 2001), 133.
[160] Martin Iddon, *John Cage and David Tudor: Correspondence on Interpretation and Performance* (Cambridge: Cambridge University Press, 2013).

As shown above, scholars have struggled to establish the exact date of his lecture attendance; however, recent research shows that Suzuki's first lecture at Columbia was in 1951. This will be re-examined by consulting Suzuki's diaries published by Matsugaoka-Bunko, material which has not previously been studied. Scholars also disagree whether the ideas of "interpenetration" and "unimpededness" derive from the teaching of Zen or *Kegon*. This will be clarified by the transcript of Suzuki's lecture in March 1951 in which he discusses these concepts. Furthermore, unlike Cage's masterwork *Music of Changes*, neither *Haiku* nor *Seven Haiku* have so far attracted much scholarly attention. These short pieces are perfect material to examine how Cage's appropriation of the Japanese short poetic form haiku relate to what he believed to be the Zen concept of "interpenetration" and "unimpededness." In the discussion of interpretive issues in Cage's works, his relationship with Tudor has been well studied, and Campana points out the compromises that performers need to make. However, how varied interpretations can highlight different temporalities of Cage's music has not previously been studied. This will be discussed with a comparison of recordings in Chapter 6.

2.4 Literature on George Crumb

Crumb's interest in Asian music has been discussed by scholars in conjunction with his fascinating, idiosyncratic use of timbre and his idea of "timelessness" although the relationship between the two has not been fully explored. Also, scholars have discussed Crumb's construction of "timelessness" in *Makrokosmos I & II*, the work I have chosen for detailed discussion and analysis. Even though Crumb confirms that his fascination with "timelessness" has served as one of the underlying images of the work, he does not specify which piece(s) is (are) meant to convey this

idea. Consequently, the scholars' views of which pieces represent the idea vary. The work has also attracted performers' attention. Their main focus tends to be limited to the discussion of Crumb's use of extended techniques; how performative domains of this work contribute to the expression of timelessness has never been discussed.

2.4.1 Crumb's Writings and Interviews

Unlike the other two composers, Crumb has not been a prolific writer, but he has often explained underlying concepts of his music, compositional techniques, and so forth, in his programme notes. His article "Music: Does It Have a Future" is the only source discussing his musical style and the composers who influenced him that is not presented as part of his musical work.[161] A number of Crumb's interviews are available, and in these he often refers to the use of symbolic notation, the timelessness of time, and "suspended" time. Table 2.1 lists his interviews in chronological order.[162]

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[161] George Crumb "Music: Does It Have a Future?" <http://www.georgecrumb.net/future.html> Last accessed on 13 September 2012.

[162] Robert Vernon Shuffett, "The Music, 1971-1975, of George Crumb: A Style Analysis" (D.M.A. document, Peabody Institute of the Johns Hopkins University Peabody Conservatory of Music,1979); Cole Gagne and Tracy Caras, *Soundpieces: Interview with American Composers* (Metuchen: Scarecrow Press, 1982); Don Gillespie, ed. *George Crumb: Profile of a Composer* (New York, London, and Frankfurt: C.F. Peters Corporation, 1986); Aleksei Takenouchi, "Numbers and proportions in George Crumb's solo piano compositions," (D.M. thesis, Northwestern University, 1987); Edward Strickland, "George Crumb," in *American Composers: Dialogues on Contemporary Music* (Bloomington and Indianapolis: Indiana University Press, 1991), 159-175; Geoff Smith and Nicola Walker Smith, "George Crumb," in *American Originals: Interviews with 25 Contemporary Composers* (London and Boston: Faber and Farber, 1994), 93-102; David Cohen, *George Crumb: A Bio-Bibliography* (Westport and London: Greenwood Press, 2002); Jan Vicar, "Poetry of Life: Interview with George Crumb," in *Imprints: Essays on Chech Music and Aesthetics* (Togga, Prague: Palacký University in Olomouc, 2005), 225-236; Victoria Adamenko, *Neo-Mythologism in Music: From Scriabin and Schoenberg to Schnittke and Crumb* (Hillsdale: Pendragon Press, 2007); Paul Steenhuisen, "George Crumb," in *Sonic Mosaics: Conversations with Composers* (Edmonton: The University of Alberta Press, 2009),107-14; Bálint András Varga, "George Crumb," in *Three Questions for Sixty-Five Composers* (Rochester: University of Rochester Press, 2011), 49-53.

Interviewer	Year	Title
Robert Vernon Shufftt	1979	"The Music, 1971-1975, of George Crumb: A Style Analysis" (D.M.A. thesis)
Cole Gagne and Tracy Caras	1982	*Soundpieces: Interview with American Composers*
Robert Shuffet	1986	"Interview Crumb/Shuffet? in *George Crumb: Profile of a Composer*
Aleksei Takenouchi	1987	"Numbers and proportions in George Crumb's solo piano compositions" (D.M. thesis)
Edward Strickland	1991	*American Composers: Dialogues on Contemporary Music*
Geoff Smith And Nicola Walker Smith	1994	*American Originals: Interviews with 25 Contemporary Composers*
David Cohen	2002	*George Crumb: A Bio-Bibliography*
Jan Vicar	2005	"Poetry of Life: Interview with George Crumb"
Victoria Adamenko	2007	*Neo-Mythologism in Music: From Scriabin and Schoenberg to Schnittke and Crumb*
Paul Steenhuisen	2009	*Sonic Mosaics: Conversations with Composers*
Bálint András Varga	2011	*Three Questions for Sixty-Five Composers*

Table 2.1. Interviews with Crumb in chronological order

2.4.2 Crumb and Asian Influence

It was Crumb's exploitation of timbre that first attracted scholarly attention, identifying an "Oriental" influence in the instrumentation. In his review of Crumb's *Night Music I* (1963), Robert Hall Lewis (1965) refers to Crumb's use of tam-tams and antique cymbals, stating that they "give the work a vaguely Oriental cast."[163] Nigel Osborne (1983) recognizes the sound of the "Orient" in *Vox Balaenae* (1976), commenting that "the imitation of models—animal, mineral, and Oriental—in *Vox Balanae* is decidedly impressionistic."[164] In the view of these reviewers Crumb's music exhibits a hint of exoticism. Andrew Stiller (2005) considers Crumb's use of

[163] Robert Hall Lewis, "George Crumb: *Night Music I*," *Perspectives of New Music* 3, no. 2 (Spring- summer, 1965): 151.
[164] Nigel Osborne, "Review of *Vox Balaenae,*" *Tempo*, 146 (Sep. 1983): 46.

Asian and African instruments as well as Cage's influence in Crumb's exploration of timbre and inside-the-piano-techniques.[165]

2.4.3 Crumb's Music: Timelessness and Suspended Time

The essential characteristics of Crumb's music have been identified as his fascination with new timbre, "timelessness," and "suspended time." Robert Shuffett (1979) discusses the sense of non-directed time as the antithesis of the concept of progressive, i.e., linear, time:

> Various aspects of time have been a strong motivating element in several of Crumb's pieces. We normally think of time as a progressive phenomenon, i.e., as something that constantly moves forward. The music of George Crumb often consciously attempts to "suspend" our feeling of "time marching on;" in fact, the transcendental illusion of timelessness so pervades Crumb's music, that it may constitute the most important conceptual representation to be employed by the composer.[166]

Schuffet's view and perception of time reflects the Western/English definition of time, as does John Kennedy's (2003) description of the flow of time explored in *Echoes of Time and the River* as "more circular than linear."[167] In her discussion of Crumb's early work *Echoes of Time and the River* (1967), Edith Borroff (1986) refers to Crumb's interest in cosmic time, and regards it as the outcome of his investigation of medieval ideas:

> He [Crumb] dealt particularly with aspects of time bound up with the idea of echoes and of cosmic time (that is, of the music of the spheres and the creation of the universe) and pre-human worlds, along with Medieval ideas that were just

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[165] Andrew Stiller, "Where's That Sound Coming From? John Cage, George Crumb, and the World of Timbre," in *George Crumb & The Alchemy of Sound: Essays on His Music,* edited by Steven Bruns and Ofer Ben-Amots (Colorado College Music Press, 2005), 37-56.
[166] Shuffett, "The Music, 1971-1975, of George Crumb: A Style Analysis," 17.
[167] John Kennedy, "Review," <http://www.naxos.com/mainsite/blurbs_reviews.asp?item_code=FECD-t0008&catNum=FECD-0008&filetype=About%20this%20Recording&language=English>, accessed on 20 January, 2014.

> beginning to be of influence in Crumb's musical thought. Ancient and Medieval thinkers equated time with gesture and motion, and Medieval musicians used both space and gesture in musical constructs and in performance.[168]

Here, Crumb's concept of "cosmic time" is contrasted with the modern understanding of time.

Victoria Adamenko (2005, 2007) emphasises the *unusualness* of Crumb's timelessness, seeing it as a prototype of "mythic" time:

> The art of creating harmonic tension reached such a peak that some composers learned how to generate a state of harmonic spaciousness and timelessness. Timelessness also characterizes the very essence of mythic time as the origin of all things.[169]

Whether or not timelessness can always be considered "mythic time" raises a question, as the concept of time is culturally constructed, and how the listener perceives it in music also depends on their cultural background.

These views see "timelessness" or "suspended" time as the antithesis of Western/English definition of time. However, Steven Bruns (1999) points out that Crumb's concept of time is the reflection of *our* understanding of time and space after Einstein's theory:

> Throughout Makrokosmos—and in fact, in much of his music—Crumb seems concerned to explore musically such mysterious concepts as time, space, and memory. And the composer seems acutely aware of the inextricable relationship of time and space in our post-Einsteinian age. Crumb experiments with time and rhythm on many levels. The musical surface is sometimes clearly divided into regular, quasi-mechanical rhythms. At other times, the flow of time is unpredictable, dreamlike, almost suspended.[170]

He finds Crumb's experimentation of time rather *modern* and contrasts "suspended" time with the linear, *regular* flow of time.

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[168] Edith Borroff, *Three American Composers* (Lanham and London: University Press of America, 1986), 243.
[169] Adamenko, 201-2. Also see her article, "George Crumb's Channels of Mythification." *American Music* 23, no. 3 (Autumn, 2005): 324-354.
[170] Steven Bruns, "Space, Time and Memory: A View of George Crumb's Makrokosmos I & II," in the liner note of Jo Boatright's CD (Music and Arts: 1999, CD 1044), 9.

Shuffett considers that the emphasis on timbre is one of the factors characterising timeless or suspended music, though he admits to the difficulty in understanding the concept of timelessness:

> The question of how, in musical terms, Crumb mutates time perception cannot be answered fully; this is a delicate matter, and largely impalpable. However, the answer lies partly in that the new emphasis composers have placed in timbre—this to an extent growing out of tape music—has necessitated the elimination of the traditional sense of pulsation in all such sound oriented music. This new sound would require the flexibility of rhythmic aperiodicity for its proper expressions; a regularly felt or established beat would be incommensurate.[171]

He points out that the listener needs time to recognize timbre. Indeed, in *Makrokosmos*, Crumb explores different possibilities of timbre by combining new harmonic languages on keys and inside-the-piano techniques. Like Shuffett, Borroff identifies irregular rhythmic motion as the attribute of "suspended" time:

> Rhythmic motion, though carefully controlled in the score, is impossible to perceive as regular, though within events a clear impetus can often be felt. The long sustained sounds, like the single-tone events separated by seemingly random lengths of time, make the music hover, suspended, in the first movement [of *Echoes of Time and the River*].[172]

Nell Wright Matthews (1981) considers that Crumb's "suspended" time is constructed through slow harmonic movement, isolated gestures, slow tempos, long pauses, soft dynamic levels, a quasi-religious or meditative mood, and the elimination of a sense of progression and arrival.[173]

Suzanne MacLean (1986) discusses the influence of Federico García Lorca's poem in Crumb's experimentation of time and notation in *Night Music I*, and points out that Crumb's manipulation of the emotional effects of time invites the listener to experience meditative status:

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[171] Shuffett., 21.
[172] Borroff, 243.
[173] Nell Wright Matthews, "George Crumb's *Makrokosmos Volumes I* and *II*: Considerations for Performance, Including Observations by David Burge, Robert Miller and Lambert Orkis" (DMA diss., University of Oklahoma, 1981), 30-39.

> From *Night Music I* come the words "y los arcos rotos donde surfer el tiempo" (and the broken arches where time suffers) which stimulated Crumb's explorations in several works of the various psychological, metaphysical and musical meanings of time. … Crumb manipulates the emotional effects of time on the listener by using such musical devices as long pauses, echoes which add the dimension of distance to time, motives of repeated notes with changing dynamics, and long passages at extremely soft dynamic levels which lull the listener into an almost meditative status. Crumb's experiments with time in these works foreshadow his later preoccupation with man's relationship to the cosmos, to the past and to the future.[174]

Strickland (1991) identifies the use of repetitions and drones in Crumb's construction of "suspended" time, in Strickland's word, "a sense of stasis." He finds an affinity with the music of the minimalist composer La Monte Young:

> While his juxtaposition of tone colors, dynamics, and even harmonic systems is anything but Minimalist, Crumb shares with composers so denominated a frequent if never so relentless use of repetition and a sense of stasis created by drones and suspended harmonies. A passing resemblance to the work of La Monte Young, in particular…may be connected to their mutual debt to Bartòk and Webern. In addition, both communicate a sense of transcendence by means of negating normal concepts of duration.[175]

Adamenko (2007) regards Crumb's circular notation as signifying of his idea of the "timelessness" of time:

> The concept of "timeless of time" is one of Crumb's idiosyncratic fascinations, which he expressed in programmatic titles such as *Frozen Time, Remembrance of Time, Collapse of Time,* and *Last Echoes of Time,* and in commentaries to his works. Circular notation provides a clue to what Crumb might understand by "frozen time": challenging the borderline that separates special phenomena from linear ones, and suggesting a mythic motive behind the translation of time into space.[176]

Curiously, she refers only to Crumb's use of circular notation and programmatic titles, and not to any musical elements.

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[174] Suzanne MacLean, "George Crumb, American Composer and Visionary ("The Phantom Gondolier")," in *George Crumb: Profile of a Composer*, edited by Don Gillespie (New York, London, and Frankfurt: C.F. Peters Corporation, 1986), 23.
[175] Strickland, 160.
[176] Adamenko, *Neo-Mythologism in Music*, 218. The titles are found in *Echoes of Time and the River* for orchestra (1967).

2.4.4 Timelessness in *Makrokosmos I & II*

Attempts have made to locate the pieces that may represent Crumb's concept of the "timelessness" of time in *Makrokosmos I & II*. Matthews considers:

> Crumb has not specified particular pieces from *Makrokosmos I* or *II* as involving time-suspension; however, this quality is conveyed in several of these pieces. In both volumes Pieces 4 and 12 particularly illustrate this characteristic. In each volume Piece 4 closes part one and Piece 12 concludes the entire work.[177]

Here, Matthew uses the term "time-suspension" instead of "timelessness," terms which have been used alternatively by the composer.[178] The pieces referred to are "Crucifixus," "Spiral Galaxy," Twin Suns," and "Agnus Dei," which are all "symbol" pieces.[179] In my view, both "Crucifixus" and "Twin Suns" exhibit a sense of progression and arrival with their tonal reference. "Twin Suns" is rhythmically and dynamically active rather than static, and this piece particularly explores the piano's percussive timbre with staccattisimo played *fffz*. These two pieces contradict Matthews' own characterization of "suspended time": as discussed earlier, he identifies slow harmonic movement, slow tempos, soft dynamic levels and the elimination of a sense of progression and arrival as the attributes of "time-suspension."

Adamenko finds the character of "timelessness" in "The Magic Circle of Infinity," "Spiral Galaxy," and "Agnus Dei" because these pieces accompany programmatic titles (and performance directions) and are notated in a circular manner.[180]

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[177] Matthews, 34.
[178] Cf. See Chapter 4 for Crumb's interchangeable use of these terms.
[179] Ibid., 30-34. Crumb uses symbolic notation to score his music. "Cruxifixus" is notated in the shape of a cross, "Spiral Galaxy" in a spiral, "Twin Suns" in two circles, and "Agnus Dei" in a peace sign.
[180] Adamenko, 220.

Two pianists with whom I had personal communications offer other views. Robert Shannon, who recorded *Makrokosmos I & II* under the supervision of Crumb, refers to "timeless" marked in "Spiral Galaxy":

> The timelessness of Spiral Galaxy is that of a huge mostly empty space that is endlessly ongoing, without boundaries. Hence timeless....to us as observers. And the timelessness of the hazy passage "started" long before the gong that announced it.. I think.[181]

Shannon links the idea of the "timeless" with the emptiness of space and its long, long history of existence. This is based on his interpretation of Crumb's music as spatial in which "dramatic things happen to it: closer and further, regularly and irregularly."[182]

Jeffrey Jacob, who enjoyed a personal contact with Crumb, considers "The Mystic Chord" in addition to "Spiral Galaxy" and "Agnus Dei" as the "timeless" pieces:

> And yes, the "timelessness of time". I think one's physical gestures and facial expressions in a live performance can make a difference. I try to play Spiral Galaxy, Agnus Dei, and The Mystic Chord, with slowing sweeping gestures, and a facial expression of utter, meditative calm, sometimes with eyes half closed in reverie.[183]

"The Mystic Chord," the second piece of *Makrokosmos II*, is linearly notated and contains a rhythmically driven, aggressive section named "Music of Strife." However, at the beginning of the piece Crumb notates, "Adagio molto [a crotchet =34]; serene, desireless, like a Nirvana-trance." Thus Jacob interprets the characteristics of "timelessness" as slow, meditative, calm, mystic, and dreamy. Whether or not Crumb originally intended to communicate these characteristics, the performer's interpretation of what "timeless" means is also a factor. Perhaps, in Jacob's perception, it is a non-daily, unrealistic concept of time which is expressed by Crumb's marking "a Nirvana-trance."

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[181] Robert Shannon, in a personal email written to the author on 7 March 2014.
[182] Ibid.
[183] Jeffery Jacob, in a personal email written to the author.

Some scholars have approached the temporal aspect of Crumb's music more theoretically and attended to pitch and motivic relationships in his works; a few noteworthy findings revealing Crumb's attitude towards structural coherence have been made. Larry Lusk (1974) analyses the entire *Makrokosmos I & II* and concludes:

> [T]he interval of the augmented fourth…the interval of the perfect fifth…and the interval of the half-step (from the root progression in each hand), the three-note motive A, B, F with its inversion and all transpositions…[are] [e]mployed in a very free and expressive way, [and] these four elements account for nearly every note in the entire set.[184]

Susan Green Faulkner (1979) analyzes how the motivic ideas developed in the first volume of *Makrokosmos* relate to those in the second and third volumes.[185] Pitch-class set analyses conducted by Richard Bass (1991, 1994) also shows how tightly *Makrokosmos I & II* are constructed.[186] Edward Pearsall compares the music of Béla Bartòk and Crumb and discusses their approach to symmetry in pitch constructions.[187]

Other compositional techniques and essential characteristics of Crumb's music, such as the use of quotation, inspiration from Lorca's poem, and affinity to Mahler's music, are discussed in critical essays compiled in *George Crumb: Profile of a Composer*, edited by Don Gillespie (1986), and *George Crumb & The Alchemy of Sound: Essays on His Music,* edited by Steven Bruns and Ofer Ben-Amots (2005).[188]

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[184] Larry Lusk, "Makrokosmos, Vol. 1 Twelve Fantasy-Pieces after the Zodiac for Amplified Piano by George Crumb," *Notes* 31, no. 1 (September, 1974): 158.
[185] Susan Green Faulkner, "An Analysis of George Crumb's *Makrokosmos, Volume II* and its Relationship to *Makrokosmos, Volume I* and *III*" (D.M.A. diss., University of Cincinnati, 1979).
[186] Richard Bass, "Sets, Scales, and Symmetries: The pitch-Structural Basis of George Crumb's *Makrokosmos* I and II," *Music Theory Spectrum* 13, no. 1 (Spring 1991: 1-20); idem, "Models of Octatonic and Whole-Tone Interaction: George Crumb and His Predecessors," *Journal of Music Theory* 38, no. 2 (Autumn, 1994): 155-186.
[187] Edward Pearsall, "Symmetry and Goal-Directed Motion in Music by Béla Batrók and George Crumb," *Tempo* 58, no. 228 (April 2004): 32-39.
[188] Don Gillespie, ed. *George Crumb: Profile of a Composer*; Steven Bruns and Ofer Ben-Amots, eds. *George Crumb & The Alchemy of Sound: Essays on His Music.*

Crumb's biography, reviews of his works, discography, and so forth, are compiled by David Cohen (2002).[189]

2.4.5 Performing Crumb's Works

Others have approached Crumb's music from a performer's perspective. Matthews (1981) interviews three Crumb experts, David Burge, Robert Miller and Lambert Orkis, and provides their insight into extended techniques employed in *Makrokosmos I & II*.[190] David Burge's (2004) commentary on *Makrokosmos* appears in his book discussing twentieth-century piano repertoire.[191] Robert Miller's programme note to *Makrokosmos II* is contained in *George Crumb & The Alchemy of Sound: Essays on His Music.*[192] These will be discussed in Chapter 6. Mayumi Tayake (2012) provides a practical guide for the pianist on how to execute extended techniques employed in *Makrokosmos II*.[193]

It is generally agreed that Crumb's idea of the "timelessness" of time is one of the idiosyncratic characteristics of his music, and this is perceived as the antithesis of progressive, linear time. The terms "suspended" time and timelessness are used interchangeably, raising the questions whether "timelessness" only applies to the description of musical stasis. This leads to another question as to how Crumb

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[189] David Cohen, *George Crumb: A Bio-Bibliography* (Westport and London: Greenwood Press, 2002).
[190] Matthews, "George Crumb's *Makrokosmos Volumes I* and *II*: Considerations for Performance, Including Observations by David Burge, Robert Miller and Lambert Orkis."
[191] David Burge, *Twentieth-Century Piano Music* (Maryland: Scarecrow Press, 2004), 218.
[192] Robert Miller, "Makrokosmos II," in *George Crumb & The Alchemy of Sound: Essays on His Music*, 308-9.
[193] Mayumi Tayake, "Performance Guide to Makrokosmos Volume II" (D.M.A. dissertation, University of Washington, 2012).

communicates this idea through his notation. To some scholars, rhythmic irregularity, emphasis on timbre, and soft dynamics, i.e., musical materials, characterise "timelessness" in his music, while others look to the importance of his extra-musical communication, i.e., programmatic titles, performance directions, and symbolic notations. The sound of Asia in his music has been recognized, but the influence of Asian music in Crumb's "timelessness" of time has not been fully considered. For performers, the focus has been on Crumb's extended techniques and the practical challenges that they pose. Interpretive issues and performance practice in *Makrokosmos I & II* have not fully been explored, and these will be discussed in Chapters 4 and 6.

2.5 Literature on Tōru Takemitsu

Takemitsu became an internationally recognized composer with *November Steps* for *biwa*, *shakuhachi*, and orchestra (1969), a work which combines traditional Japanese instruments with a Western orchestra. His music has been discussed in the context of an East-West synthesis. Curiously, the Japanese musicologist Yōko Narazaki (2005) finds Takemitsu's music "not completely Japanese,"[194] but in Western societies Takemitsu's works are seen as music "which has an Eastern sonority," and that is the quality that scholars and musicians have found fascinating. Takemitsu himself became aware of this during his residency at the Festival d'Avignon in 1990: the students in his master class aimed at unravelling what makes

[194] Yoko Narazaki, *Sakkyokuka, Hito to Sakuhin: Takemitsu Toru* (Tokyo: Ongakunotomo-sha, 2005). She especially attends to the influence of jazz on him, and claims that Takemitsu's rhythm is the product of his jazz studies and traditional Japanese music.

his music sound "Eastern" or "Japanese."[195] His adaptation of the Japanese concept of *ma* is considered one of the most important characteristics of his music. His use of silence has been discussed in conjunction with *ma*; however, its performative nature, i.e., how it affects rhythm and tempo in performance, have not been fully explored.

2.5.1 Takemitsu's Writings and Interviews

Takemitsu was a prolific writer who extensively discussed his compositional methods, aesthetics, and experience as a composer. His writings are compiled in five volumes as *Takemitsu Tōru Chosakushū* (2000).[196] The majority of his writings are available only in Japanese, but some have been translated into English. The book *Confronting Silence* (1995) contains selected writings, including "Dream and Number," in which he discusses his compositional techniques.[197] The articles "My Perception of Time in Traditional Japanese Music" (1989), "A Jostled Silence: Contemporary Japanese Musical Thought (Part One)" (1992), "Mirrors" (1992), and "Contemporary Music of Japan" (1998) are published in American journals.[198] An essay on the Japanese aesthetic and timbre of *sawari* is included in *Locating East Asia in Western Art Music* (2004).[199] Noriko Ohtake (1993) introduces Takemitsu's ideas as expressed in his writings: her book, which contains many episodes that are not

[195] Takemitsu, *Toru Takemitsu Mizukara wo Kataru*, 22-25.
[196] Tōru Takemitsu, *Takemitsu Tōru Chosakushū*, vols. 5 (Tokyo: Shinchō-sha, 2000).
[197] Idem, *Confronting Silence*, translated and edited by Yoshiko Kakudo and Glenn Glasow (Berkeley: Fallen Leaf Press, 1995).
[198]Tōru Takemitsu, "My Perception of Time in Traditional Japanese Music," *Contemporary Music Review* 1, no. 2 (Summer 1989): 9-13; Tōru Takemitsu and Roger Reynolds, "A Jostled Silence: Contemporary Japanese Musical Thought (Part One)," *Perspectives of New Music* 30, no. 1 (1992): 22-35; Tōru Takemitsu, Sumi Adachi, and Roger Reynolds, "Mirros," *Perspectives of New Music* 30, no. 1 (1992): 36-80; Tōru Takemitsu, "Contemporary Music of Japan," *Perspectives on New Music* 27, no. 2 (Summer 1998): 198-204
[199] Yayoi Uno Everett and Frederick Lau, eds., *Locating East Asia in Western Art Music* (Middletown: Wesleyan University Press, 2004).

included in the *Confronting Silence*, would serve as a useful secondary source for non-Japanese readers.[200]

Takemitsu's interviews are available in both Japanese and English. The most extensive, insightful interviews are those conducted by Takashi Tachibana between1992 and Takemitsu's death in 1996. These are published as "Takemitsu Tōru Ongaku Sōzō e no Tabi" in the Japanese magazine *Bungakukai*.[201] "Takemitsu Tōru ni Kiku" (2006) and *Takemitsu Tōru Mizukara wo Kataru* (2010) also provide useful information on the performance of his works.[202] Interviews in English were conducted by Tania Cronia and Hilary Tann (1989) as well as by Roger Reynolds (1996).[203]

2.5.2 Japanese Qualities in Takemitsu's Music

In April 1961, the International Congress of East and West (*Tokyo Sekai Ongaku Kaigi*) was held in Japan. The German composer and musicologist H. H. Stuckenschmidt (1963) participated in this, and introduced Takemitsu as the composer of *musique concréte*.[204] In later years, attention shifted to Takemitsu's musical synthesis between the East and the West. See, for example, articles by Dale Craig (1971) and Chu Weng-Chung (1971), introducing Takemitsu's earlier works,

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[200] Noriko Ohtake, *Creative Sources for the Music of Toru Takemitsu* (Aldershot: Scholar Press, 1993).
[201] Takashi Tachibana, "Takemitsu Tōru Ongaku Sōzō e no Tabi 3," *Bungakukai*. (August 1992): 258-74 (one of the interviews cited in this dissertation).
[202] Tōru Takemitsu, Akimichi Takeda, and Takashi Funayama "Takemitsu Tōru ni Kiku," in the liner note of *Takemitsu Tōru Hibiki no Umi: Shitsunaigaku Zenshū 1* (Tokyo: Kings Record, 2006); Tōru Takemitsu, *Takemitsu Tōru Mizukara wo Kataru*, interviewed by Mitsuo Aki (Tokyo: Seido-sha, 2010).
[203] Tōru Takemitsu, Tania Cronia, and Hilary Tann "Afterword," *Perspectives of New Music* 27, no. 2 (Summer 1989): 206-14; Roger Reynolds and Tōru Takemitsu, "Roger Reynolds and Tōru Takemitsu: A Conversation," *Musical Quarterly* 80, no. 1 (1996): 61-76.
[204] H. H. Stuckenschmit, "Contemporary Techniques in Music," *The Musical Quarterly* 49, no.1 (Jan., 1963): 16.

Eclipse for *biwa* and *shakuhachi* (1966), *Arc* for piano and orchestra (1963), and *November Steps* for *biwa*, *shakuhachi*, and orchestra (1969).[205] Craig describes the *Arc* as "totally Japanese and at the same time totally of the twentieth century." He considers that **"**the silences, the asceticism, the frightening intensity which boils beneath the surface and occasionally explodes without warning" are the elements which make the music "extremely un-European but quintessentially Japanese."[206] This is his *impression* of the work, not an argument based on his analysis, and his view of *Arc* as Japanese could have been influenced by Takemitsu's sensational use of *Japanese* instruments in *Eclipse*, the other work discussed in the article. Craig's view might well serve as a typical example of how Takemitsu's music was received in the 1970s outside Japan. Weng-Chung commends Takemitsu's use of the *shakuhachi* and the *biwa* in *November Steps.* He also critically assesses the difference in the production and control of tones between the Western orchestra and the Japanese solo instruments, which "remains a fissure in sound (unless such dichotomy is accepted as an aspect of the compositional concept employed)."[207]

Robin J. Heifetz (1984) provides an example of how a non-Japanese listener perceives time in Takemitsu's music.[208] The author compares the *Requiem* for string orchestra (1957) and *Landscape No. 1* for string quartet (1961) with Japanese traditional music, such as *gagaku* and *nō*, and considers that Takemitsu's elastic rhythm producing "a strikingly different temporal sensation," repeated, but undeveloped thematic materials, and an extremely slow tempo, resemble traditional

[205] Chou Wen-Chung, "Asian Concepts and Twentieth-century Western Composers." Dale A Craig, "Transcendental World Music," *Asian Music* 2, no. 1 (1971): 5, 2-7.
[206] Craig, 5.
[207] Wen-Chung, 221.
[208] Robin J. Heifetz, "East-West Synthesis in Japanese Composition: 1950-1970," *The Journal of Musicology* 3, no. 4 (Autumn 1984): 443-55.

Japanese music.[209] He further argues that the use of an unprepared climax in the *Asterism* for piano and orchestra (1969) stands in contrast to **"**the classical Western model wherein the climax functions as the apex or culmination of the work."[210] Although the author's argument lacks expert knowledge of Japanese music and an analytical attitude, his temporal perception reveals a Western listener's expectation toward temporality.

Recently scholarly attention has shifted to elements in Takemitsu's style, such as orchestration, colour, and irregular rhythm, and how they are influenced by Japanese culture. Dana Wilson (1982) dedicates the first part of his thesis to Eastern aesthetics, including the concept of *ma*. He finds Takemitsu's use of silence "the most important single element to Takemitsu's sound conception."[211] Bernard Rands (1987) discusses the influence of Claude Debussy and Olivier Messiaen on Takemitsu's sensitivity to colour.[212] His description of Takemitsu's music—mysterious, surprising, refreshing, delicate, cerebral, and esoteric—suggests a hint of exoticism. Roger Reynolds (1987) discusses the temporal and physical spaciousness of *The Dorian Horizon* (1966) in which Takemitsu experiments with the spatial dispositions of instrumental groups.[213] Reynolds also refers to Takemitsu's asymmetrical phrase structure creating "no movements," but "one continuity that never slackens."[214] Wilson, Heifetz, and Reynolds all regard temporal flexibility as one of the essential characteristics of Takemitsu's music. Judith Ann Herd (1989) states that Japanese

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[209] Heifetz, 448.
[210] Ibid.
[211] Dana Richard Wilson, "The Role of Texture in Selected Works of Toru Takemitsu" (Ph.D. diss., University of Rochester Eastman School of Music, 1982), 257.
[212] Bernard Rands, "Two Views of Takemitsu: 'I Sing Only for Myself…,'" *The Musical Times* 128, no. 1735 (Sep. 1987): 477-80.
[213] Roger Reynolds, "Rarely Sudden, Never Abrupt,'" *The Musical Times* 128, no. 1735 (September 1987): 480-3.
[214] Ibid., 480.

nationalist composers, such as Toshirō Mayuzumi and Dan Ikuma, used silence as a nationalistic symbol, and that this tendency is continued in Takemitu's music.[215] She claims that the use of silence by both Cage and Takemitsu reflects their inspiration by Zen. However, she provides no evidence for this. Mikiko Sakamoto (2010) examines the influence of Cage on Takemitsu.[216] She shares Peter Burt's view of "Cage Shock" as "re-imported Zen Buddhism" and claims:

> Cage's concept of silence and chance music is all too simple and easy, and this is why it was so surprising to many Japanese composers, although at the same time completely compatible with traditional Japanese culture and ideals.[217]

Without any expert knowledge of Cage's approximation of Zen, her argument remains questionable. Chung-Haing Lee (1999) discusses Japanese elements in Takemitsu's piano works, claiming that irregular phrase structure defined by silence, nonscalar and nonlyrical melodies, and pointillism have been derived from Japanese music.[218] Shinichirō Okabe (2000) discusses the reception of Takemitsu's music in the U.K. and U.S., and reports Paul Crossley's explanation of the similarity between Takemitsu's "non-Western feel of time" and the historical narration of the Japanese *emaki* (a picture scroll) in the Channel 4 programme *A to Z of Pleasure* in 1989.[219]

From the late 1980s, pitch constructions in Takemitsu's works became the main focus of scholarly attention. Some attempted to see the affinity between his and Western composers' music, while others aimed to hear the affinity with traditional

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[215] Judith Ann Herd, "The Neonationalist Movement: Origins of Japanese Contemporary Music," *Perspectives of New Music* 27, no. 2 (Summer, 1989): 118-163.
[216] Mikiko Sakamoto, "Takemitsu and the Influence of 'Cage Schok': Transforming the Japanese Ideology into Music" (D.M.A. document, University of Nebraska, 2010).
[217] Ibid., 20.
[218] Chung-Haing Lee, "Japanese Elements in the Piano Works of Toru Takemitsu" (Ph.D. diss., University of North Texas, 1991).
[219] Shinichirō Okabe, "Spirit Garden ni oriru Tori tachi: Eibei ni Okeru Takemitsu Jyuyō," in *Tōru Takemitsu Oto no Kawa no Yukue*, edited by Chōki Seiji and Ryuichi Higuchi (Tokyo: Heibon-sha, 2000), 238.

Japanese music. Timothy Victor Koozin (1988) analyses the solo piano works with post-tonal/pitch-class set theory, and describes Takemitsu's pitch construction as an "additive process by which linear and vertical structures are built up from small generative cells."[220] Edward Smaldon's (1989) pitch-class set analysis of *November Steps* and *Autumn* (1973), both written for *biwa, shakuhachi*, and orchestra, demonstrates how Takemitsu's pitch constructions are influenced both by the Western atonal tradition and by traditional Japanese music, and how his manipulation of "nuclear tones" achieves a long-range formal consistency.[221] Koozin's 1991 discusses the use of octatonic-derived pitch materials in Takemitsu's piano works, *For Away* (1973), *Rain Tree Sketch* (1982), and *Lex yeux clos II* (1988).[222] Misleadingly, he comments that Takemitsu's later works exhibit "a greater level of rhythmic regularity," without considering the possibility of rhythmic flexibilities in performance.[223] Kenjirō Miyamoto (1996) conducts pitch-class set analysis on Takemitsu's earlier works.[224] Peter Burt's *The Music of Toru Takemitsu* (2001) is the first comprehensive book in English.[225] This covers the composer's life and a wide range of works, except his film music. Burt divides the works into three periods: the early period (1950s-1960), the second period (1960s-1970s), and the final period (1980s until his death in 1996). He focuses mainly on pitch and pitch-class

[220] Timothy Victor Koozin, "The solo piano works of Toru Takemitsu: A linear/set-theoretic analysis" (Ph.D. diss., University of Cincinnati, 1988), 286.
[221] Edward Smaldone, "Japanese and Western Confluences in Large-Scale Pitch Organization of Toru Takemitsu's November Steps and Autumn," *Perspectives of New Music* 27, no. 2 (Summer 1989): 216-231.
[222] Timothy Koozin, "Octatonisism in Recent Solo Piano Works of Toru Takemitsu," *Perspectives of New Music* 29, no. 1 (Winter, 1991): 124-40.
[223] Ibid., 125.
[224] Kenjirō Miyamoto, "Klang im Osten Klang im Western: Der Komponist Tōru Takemitsu und die Rezeption europäischer Musik in Japan" (Ph.D. diss., Saarbrücken University, 1996).
[225] Peter Burt, *The Music of Toru Takemitsu* (Cambridge: Cambridge University Press, 2001).

construction, and does not explore rhythmic or performance issues. *Contemporary Music Review*, volume 21, no. 4 (2002) is a special issue dedicated to Takemitsu's music. Attempting to discover how Takemitsu would have heard sounds with his "Japanese" ear, Steven Nuss argues that Takemitsu's repeated dyads in *Sacrifice* have the same functions as the pivot words in *renga* (the Japanese short poem created by several poets using associated words) and that his pitch and pitch-class materials are arranged in a similar manner to *gagaku*.[226] Koozin discusses the affinity between Debussy and Takemitsu in terms of pitch manipulation, while Peter Burt unravels the association between Takemitsu's *Dorian Horizon* and George Russell's Lydian Chromatic concept.[227] Hidetoku Ōnishi (2008) analyses the temporality of the *Dream/Window*, *Fantasma/Cantos*, and *Spirit Garden*, while aiming to demonstrate how Takemitsu uses pitch construction to display the circular design of a Japanese garden in which visitors can stroll around a nonlinear path.[228] He suggests that the limited number of melodic and harmonic events which return without following a predetermined course in these three pieces contribute to "the non-linearity and non-directionality of the music."[229]

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[226] Steven Nuss, "Hearing 'Japanese', Hearing Takemitsu," *Contemporary Music Review* 21, no. 4 (2002): 35-71.
[227] Timothy Koozin, "Traversing distances: pitch organization, gesture and imagery in the late works of Toru Takemitsu," *Contemporary Music Review* 21, no. 4 (2002): 17-34;
Peter Burt, "Takemitsu and the Lydian Chromatic Concept of George Russell," *Contemporary Music Review* 21, no. 4 (2002): 73-109.
[228] Hidetoku Ōnishi, "Excursions into Takemitsu's Japanese Garden: An Application of the Superset/Subset Network to the Analysis of Three Orchestral Compositions," in *Music of Japan Today,* edited by Michael Richards and Kazuko Tanosaki (Newcastle: Cambridge Scholars Publishing, 2008), 75-95.
[229] Ibid., 82.

2.5.3 Concept of *Ma* in Takemitsu's Music

The temporal aspects of Takemitsu's music have attracted scholarly attention, and Takemitsu's use of *ma* has been considered one of the factors which make his music sound "Japanese." Koozin's 1991 article is dedicated solely to the discussion of the differences between Western and Japanese concepts of time, and the concept of *ma*.[230] However, his observation, "In the music of Takemitsu, sounds give meaning to silence," conflicts with the aesthetic of *ma* in Japanese traditional music and its use of silence as an enhancement of the meaning of sound events.[231] This suggests that Koozin may not fully understand the aesthetic of *ma*, which values the moment during which nothing is happening, the idea represented by Zeami's "*Senu tokoro ga omoshiroki*."[232] Koozin's 1993 article explains how Takemitsu adapted the sound of *sawari*, the noise-like tone favoured in Japanese music.[233] Hwee Been Koh (1998) aims at clarifying how Japanese concepts of time, such as *jo-ha-kyū* and *ma*, are expressed in Takemitsu's music.[234] She points out Takemitsu's use of fermata in his adaptation of *ma*, but because her observation of temporal aspects in Japanese culture and her pitch-class set analysis are not fully integrated, her discussion remains a superficial overview of Takemitsu's style. Peter Revers (2002) also neglects the performative nature of *ma*. He focuses only on the meditative quality in the *shakuhachi* playing in *November Steps* and treats *ma* as a religious, "mystic" concept

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[230] Timothy Koozin, "Toru Takemitsu and the Unity of Opposites," *College Music Symposium* 30, no. 1 (Spring 1990): 34-44.
[231] Ibid., 41.
[232] Kunio Konparu, *The Noh Theatre: Principles and Perspectives* (New York: Weatherhill/Tankosha, 1983), 71. The quotation is the famous saying by the *nō* actor Zeami, the founder of *Zen*.
[233] Timothy Koozin, "Spiritual-temporal imagery in music of Olivier Messiaen and Toru Takemitsu," *Contemporary Music Review* 7, no. 2 (1993): 185-202.
[234] Hwee Been Koh, "East and West: The Aesthetics and Musical Time of Toru Takemitsu" (Ph.D. diss., Boston University, 1998).

deriving from Zen.[235] However, this demonstrates a lack of understanding of how *ma* has been adapted to the daily lifestyle of the Japanese and to non-religious Japanese music.

2.5.4 Performing Takemitsu's Works

Both Tomoko Isshiki (2001) and Akiko Taniguchi (2008) approach Taekmitsu's piano works as a performer.[236] Isshiki finds the aesthetic of *ma* in Takemitsu's use of fermata, but avoids suggesting how to deliver it in performance by simply stating, "It is hard to say how long the performer should wait. Takemitsu said in an interview: 'It should not be called *ma* when the idea was consciously in your mind. This is because it would become a quite measurable or controlled object.'"[237] Taniguchi compares recordings of *Litany* and *Rain Tree Sketch II* by Peter Serkin, Izumi Tateno, and Noriko Ogawa. She pays particular attention to the durations of the three performances and to each performer's response to Takemitsu's tempo and dynamic markings in order to show how his notation yields several interpretive possibilities. Her general overview of Takemitsu's philosophy and style is not well integrated with her analysis of recordings, and her argument is simplistic and subjective, but her final conclusion reveals how a Japanese musician relates to nature and time:

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[235] Peter Revres, "Takemitsu Tōru Sakuhin no Bigaku to Oto Kōsei," translated by Nobuhiro Itō, in *Tōru Takemitsu Oto no Kawa no Yukue*, edited by Chōski Seiji and Ryuichi Higuchi (Tokyo, Heibon-sha, 2000), 264-274.
[236] Tomoko Isshiki, "Takemitsu's Cosmic View: *The Rain Tree Sketches*" (D.M.A. diss., University of Houston, 2001); Akiko Taniguchi, "Performance Issues of Tōru Takemitsu's Solo Piano Works: *Litany* and *Rain Tree Sketch II* (Master of Music thesis, California State University, Long Beach, 2008).
[237] Issiki, 106. The interview is cited from Jimmy Finne, "The Keyboard Percussion Trios of Toru Takemitsu and Toshi Ichiyanagi" (D.M.A. Document, University of North Texas, 1995), 68.

> Even though specific dynamic marking and changes of tempi can be seen in his music, those have less to do with literal meaning and more to do with inner feeling. Metronomic performance should be avoided because nature and time do not move metronomically.[238]

Thus, scholars have approached Takemitsu's music from various angles: East and West synthesis, pitch contents, and musical time and temporality. How his use of silence relates to the concept of *ma* and how his pitch organization reflects his view of Japanese cyclic time have been discussed. In the discussion of *ma*, the majority of scholars have approached it as a fixed idea, which can be clearly notated in the score as a rest or a fermata; this lacks understanding of how *ma* affects rhythm and tempo in the performance of Takemitsu's music, and consequently how it affects the listener's perception of cyclic, i.e., nonlinear time. These performative aspects of his music will be discussed in Chapters 5 and 6.

[238] Taniguchi, 48.

Chapter 3: JOHN CAGE'S TWO *HAIKU* AND HIS MANIPULATION OF ZEN: *HAIKU* OF R.H. BLYTH AND LECTURES OF DAISETZ SUZUKI

Introduction

This chapter examines how Cage's Japanese studies, in particular, his inquiry into haiku and Zen, influenced his understanding of time and space. The chapter also considers how this is manifested in his piano works *Haiku* (1950-1951) and *Seven Haiku* (1952), works which were written shortly after Cage read Reginald Horace Blyth's book *Haiku* (1949-1952).[239] These two piano works have not attracted much scholarly attention although the latter is sometimes mentioned as one of the spin-off pieces of *Music of Changes* in which Cage applied chance operations with the aid of the *I Ching* as the compositional method.[240] The composer himself appears to have considered the first *Haiku* "inferior in quality," eliminating it from the catalogue published in 1962.[241]

It is well established that Cage was interested in Zen and that he was greatly influenced by attending lectures given by Daisetz Suzuki at Columbia University in the 1950s. The influence of Blyth's book on Cage has not so far been fully explored.

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[239] John Cage, "Satie Controversy," *Musical America* 70 (December 15, 1950). Reprinted in *John Cage: Documentary Monographs in Modern Art*, edited by Richard Kostelanetz (New York: Praeger Publisher, 1970), 90.

[240] John Richard Francis, "Structure in the Solo Piano Music of John Cage" (Ph.D. diss., The Florid State University, 1976), 54; Pritchett, *The Music of John Cage*, 88. Another spin-off piece is *For MC and DT* (1952). The *Music of Changes* is the most well-known work in which Cage drew upon the *I Ching* (Chinese *Book of Changes*) as part of the compositional process, with the aim of relinquishing control over the note-to-note sequence. According to Pritchett, first Cage made a chart for pitch, rhythm, and dynamics as well as superimposition (determining how many musical events are layered) and tempo. The chart consists of 64 cells, corresponding to the 64 hexagrams of the *I Ching*. Then, he tossed three coins to obtain a number, and located the pre-composed material placed in the cell of the corresponding number. By repeating this process, he created musical continuity. See pp. 78-88.

[241] Dunn, 5. Cage states in the foreword, "Not all of my work is in this catalogue. Many scores have seemed to me inferior in quality. I have not destroyed them."

A brief review of Cage's Asian studies (3.1) will be followed by a comparison between the structures of the Japanese haiku and the two *haiku* works for piano (3.2.1), and a discussion of how Blyth's commentaries on the Japanese haiku gave Cage a new insight into form and continuity (3.2.2).

Exactly when Cage's serious involvement with Zen began is hard to establish: there is no official record of Cage's attendance at Suzuki's lectures and Cage's own recollections are vague.[242] To shed light on this, Suzuki's diaries were studied, so too was the transcript of the lecture on 1 March 1951, which is widely believed to be the first lecture that Cage attended. This transcript discusses the *Kegon* concepts of "interpenetration" and "unimpededness." These are *Kegon* concepts, but these keywords are mistakenly used as a symbol of Zen teaching both by Cage and Cage scholars (3.3).

Cage's two *haiku* works are analyzed with a view to examining how Cage's learning of haiku and Suzuki's lectures is manifested in the temporality of these works (3.4).

3.1 Cage's Asian Studies

The two *haiku* works for piano were written at the beginning of 1950s; but Cage's interest in Eastern culture dates from the 1930s.[243] According to his composer friend Tōru Takemitsu, Cage first became interested in Japanese culture when being

[242] Patterson, "Cage and Asia: history and sources," 53.
[243] Patterson's two articles, "Cage and Asia: History and Sources" in and "The Picture That Is Not in the Colors: Cage, Coomaraswamy, and the Impact of India" are amongst the most notable work in this field.

given a little Japanese bell shaped like a male genital from a friend, who was a sailor. At the time Cage was a young boy, living in San Francisco.[244]

Cage was born in Los Angeles on 5 September 1912. Apart from four years—when he lived in Michigan and Ontario, Canada—he spent his childhood and youth in Los Angeles, until he graduated from high school (1923-1928).[245] He then entered Pomona College in Claremont, California, travelled for eighteen months in Europe between 1929 and 1931, studied for eight months in New York with Henry Cowell at the New School for Social Research from the late spring of 1934. He then returned to Los Angeles again in order to study with Arnold Schoenberg.[246] In the summer of 1938, Cage moved to northern California where he met Lou Harrison in San Francisco.

David Patterson (2002) asserts that there is no doubt that Cage was immersed in Asian music during the time he spent in California although "concrete documentation of this exposure is almost nonexistent."[247] Leta E. Miller (2006) discusses Cage's learning of Asian music in one of Cowell's classes:

> Among Cowell's class lists in the New York collection… Cage's name appears only on the one for "Primitive and Folk Origins of Music." …The course included units in "Primitive Music" (musics of the Eskimos, Bushmen, Indian tribes, South Sea Islanders, Africans); "Oriental Music" (ancient Indian and Chinese musics, Japanese, Siamese, Balinese, and Javanese musics); "Folk Music" as a "hybrid between primitive and cultivated systems"; and "European cultivated music" (how it grew from "Oriental and folk sources" and its development from Palestrina to the modern era). [248]

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[244] Tōru Takemitsu, "Ongaku wo Yobisamasu Mono (1985)" in *Takemitsu Tōru Chosaku-shū,* vol. 2 (Tokyo: Shinchō-sha, 2000), 294-5.
[245] Nicholls, 10-11; Haskins, 18.
[246] Nicholls, 10-17.
[247] Patterson, "The Picture That Is Not in the Colors: Cage, Coomaraswamy, and the Impact of India," 177.
[248] Leta Miller, "Henry Cowell and John Cage: Intersections and Influences, 1933-1941," *Journal of the American Musicological Society* 59, no. 1 (Spring 2006), 53-4.

The outcome of Cage's Asian music studies can be seen in his instrumentation of *First Construction (in Metal)* (1939), using Balinese gongs, Turkish cymbals, Chinese cymbals, and Japanese temple gongs.[249]

Cage was interested not only in Asian sounds but also in Asian philosophy. He attended Nancy Wilson Ross' lecture "Zen Buddhism and Dada" at the Cornish School in Seattle in the late thirties.[250] The mythologist Joseph Campbell introduced him to Ananda Coomaraswamy's work *The Transformation of Nature in Art* (1934) whose writing Cage quotes, "Art is the imitation of Nature in her manner of operation," in "The East in the West" (1946).[251] Cage learnt informally about Indian music from Geeta Sarabhai who gave him a copy of *The Gospel of Sri Ramakrishna* as a farewell gift when she left the U.S. in 1946.[252] Cage's interest in the spiritual teaching of Indian sources is displayed in *Sonatas and Interludes* (1946-48). In this he attempts to express the eight permanent emotions of Indian tradition: "the heroic, the erotic, the wondrous, the mirthful, sorrow, fear, anger, the odious, and their common tendency toward tranquility."[253] No title or explanation about how these emotions are translated into the music is given; however, the subdued timbre and dynamics produced by the prepared piano seem to exhibit calmness. The cyclic form of *The Season* (1947), a ballet score commissioned by The Ballet Society in New York City,

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[249] "Music," in *Cage Compendium* <http://cagecomp.home.xs4all.nl/music.htm>, accessed on 12 August 2014.
[250] Cage, *Silence*, ix; Revill, 109.
[251] Patterson, "Cage and Asia: History and Sources," 44; John Cage, "The East in the West," *Modern Music* 23, no. 2 (April 1946): 111-115. Reprinted in *Asian Music* 1, no. 1 (Winter, 1968-1969): 15-18. Haskins, 48. Nicholls, 29-35. Haskins asserts that Xenia met Campbell on the West Coast in 1932. Campbell provided lodging for Cage and his wife Xenia soon after they arrived in New York in the spring of 1942.
[252] Nicholls, 35-6.
[253] Kostelanetz, ed. *John Cage: Documentary Monographs in Modern Art*, 129.

depicts "the traditional Indian view of the seasons as quiescence (winter), creation (spring), preservation (summer), and destruction (fall)."[254]

Cage's interest in "Oriental" (Asian) philosophy came "out of necessity" when he found himself "very disconnected both personally and as an artist in the middle forties."[255] Presumably, this is a reference to his divorce in 1945 caused by his sexual orientation, and his dismay with the unwelcoming public reaction to his music, "not openly hostile," but treating "the whole thing as some sort of joke."[256] Instead of seeking help in psychoanalysis, he was drawn to "Oriental" thought:

> None of the doctors can help you, our society can't help you; our education doesn't help us. It's singularly lacking in any such instruction. Furthermore, our religion doesn't help us. The Methodist Church that I was raised in spent its whole time raising money for the Foreign Missionary Society…There isn't much help for someone who is in trouble in our society. I had eliminated psychiatry as a possibility. You have Oriental thought, you have mythology. I already knew Joseph Campbell [scholar, 1904-1987] very well. The closeness of mythology to Oriental thought made me think of Oriental Philosophy as a possibility. Another possibility is astrology, curiously enough. It can be useful in such cases. Or occult thought, or the thinking, for instance, of Rudolf Steiner. But by the time you get into actual philosophy, you're practically in Oriental philosophy. So that's why I did it. It was a book of [Aldous] Huxley's [1894-1963] that lead me to make this conclusion. It was a book called *The Perennial Philosophy.* In that book I saw that all thought of that nature was the same, whether it came from Europe or Asia. I found that the flavor of Zen Buddhism appealed to me more than any other. It was tastier. And at that very time D.T. Suzuki [writer, 1870-1966] came here so I was with him for three years [1949-1951].[257]

Cage's interest in the Japanese haiku and Zen derived from his effort to overcome his crisis both as a person and a composer.

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[254] Pritchett, *The Music of John Cage*, 40. This ballet was choreographed by Merce Cunningham, and its scenery and costumes were designed by Isamu Noguchi.
[255] John Cage and Paul Cummings, "Oral History interview with John Cage, 1974 May 2"*, Archives of American Art, Smithsonian Institution* < http://www.aaa.si.edu/collections/interviews/oral-history-interview-john-cage-12442>, accessed on 7 August, 2013.
[256] Pritchett, *The Music of John Cage*, 36.
[257] John Cage and Paul Cummings, "Oral History interview with John Cage, 1974 May 2."

3.2 The Japanese Haiku and Cage

3.2.1 The Structures of the Japanese Haiku and Cage's Two *Haiku* Works for piano

The Japanese haiku poet Kusatao Nakamura (1959) explains the two fundamental criteria of haiku: a 17-syllable form with a 5-7-5 division and a specific word to represent a season of a year called *kigo*. Because of its condensed form, haiku cannot describe the temporal order and process of events. Instead, the haiku poet focuses his attention on a specific moment and expresses his emotions. The reader is left to imagine the rest—what preceded and succeeded it.[258] For instance:

Fu-ru-i-ke-ya	Ah, Old pond
Ka-wa-zu-to-bi-ko-mu	A frog jumps in
Mi-zu-no-o-to	The sound of water
(Matsuo Bashō, 1686)[259]	(Translation mine)

In this the most famous of his haikus, Bashō uses the word *kawazu*, a frog, as the *kigo*. The words *furuike* (the old pond) and *mizu no oto* (the sound of water) stimulate the reader's imagination visually and aurally, while also communicating the tranquillity of the scene.

In the first *Haiku*, Cage adopted the structure and poetic nature of the Japanese haiku. The work consists of five movements:

Haiku I: for my dear friend, Who
Haiku II: (What stillness!)
Haiku III: The Green Frog's Voice
Haiku IV: The River Plurabelle
Haiku V: (no title)

The title of Haiku III may suggest a connection to the haiku by Bashō, cited above. Don Gillespie (2013), the editor of the new edition of the work, states:

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[258] Kusatao Nakamura, *Haiku Nyūmon* (Tokyo: Misuzu-Shobō, 1959), 19-39.
[259] See 30 different translations of this haiku at <http://www.bopsecrets.org/gateway/passages/basho-frog.htm>, last accessed on 30 September, 2012.

> The titles of the pieces present a number of puzzles for the transcriber. Although using literary themes similar to those found in traditional Japanese haiku (a dear friend, stillness, frogs), no specific allusion to Japanese haiku in print in 1950 can be found. Haiku IV references the River Plurabelle of Joyce's Finnegans Wake; Haiku I might refer to a "dear friend," David Tudor, whom Cage met at the beginning of 1950, and who, it is said, once performed this piece.[260]

This new edition includes a picture of the manuscript of Haiku I, and Cage's handwriting reads "(7 5 7) opposite of HAIKU (5 7 5)."[261] Gillespie asserts that "the sequence of 7-plus-5-plus-7 sound events (in nine measures) as a structural underpinning." Figure 3.1 shows an example of how this structure can be located. However, the phrase structure of Haiku I can be considered 8-5-5: the first phrase lasts for 8 minims (mm.1-4), the second for 5 minims (from m. 5 to the first half of m.7), and the third for 5 minims (from the second half of m. 7 to m.9). Similarly, Haiku II suggests an 8.5-4.5-5-phrase structure, [262] while Haiku III 5-6-7. Haikus IV and V suggest 7-5-6 and 7-4-7, respectively. Although the length of each phrase varies, every movement consists of three phrases, thus Cage was following the three-part division of the Japanese haiku.

In *Seven Haiku*, Cage follows the original structure of the Japanese haiku, but gives no titles. The Japanese haiku's 3-part formal division and 5-7-5-pattern are phonetically expressed, and the verbal rhythms of a haiku is aesthetically pleasing to the Japanese ear; in Cage's *Seven Haiku*, these structural elements are applied only to the visual presentation, and not to the sonorities which are the product of chance operations. He introduces *Seven Haiku* in the 1962 catalogue:

> In Seven Haiku the composing means are those of the Music of Changes. The seventeen-syllable Japanese poem-structure is rendered as a space of time where

[260] Don Gillespie, "Editorial Foreword," in John Cage, *Haiku*.
[261] See the page after "Editorial Foreword."
[262] The exactly same material of the second haiku appears in *String Quartet in Four Parts* (1949-1950) in which he uses only limited notes (and harmony). This technique is known as gamut technique.

> a quarter-note equals ½ inch, having seventeen units, (5, 7, 5), within which chance operations determined the musical events (3 minutes).[263]

Each movement is divided into three measures, corresponding to the three-part division of the haiku. The 5-7-5-pattern is visually presented with the lengths of three measures in notation, 2.5 inches, 3.5 inches, and 2.5 inches, respectively. The 17-syllable form becomes visible when a crotchet =1/2 inch is marked in the score (Figure 3.2).

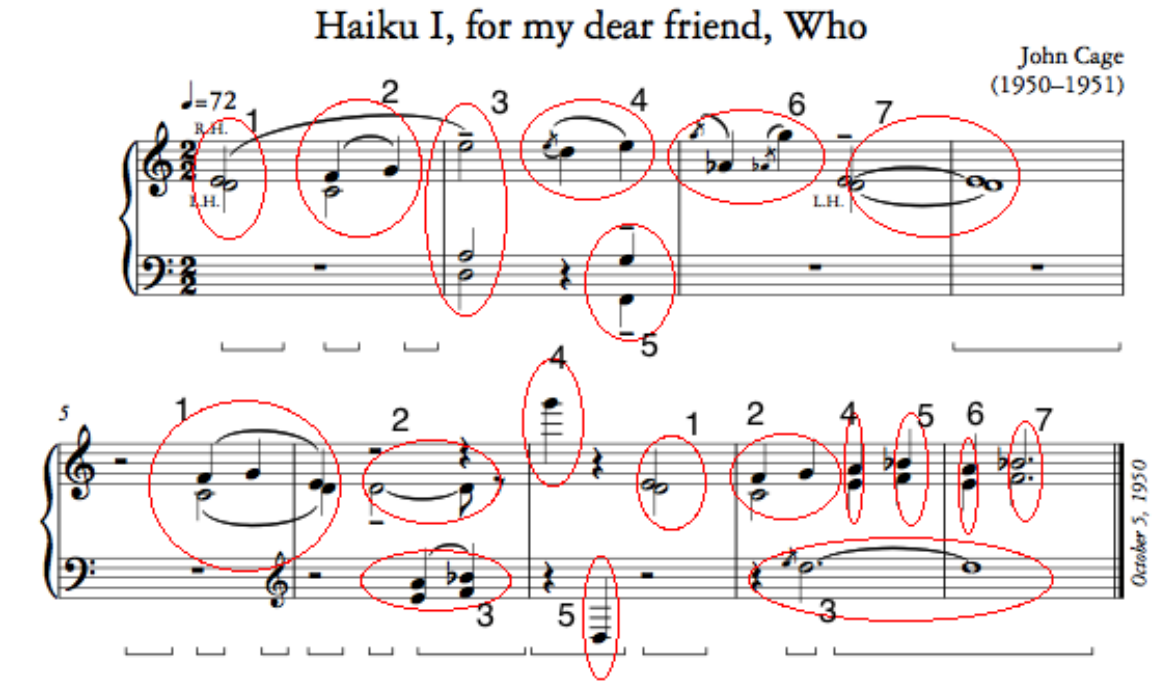

Figure 3.1. The first movement of *Haiku* ©2012 by Henmar Press Inc. Reproduced by kind permission of Peters Edition Limited, London

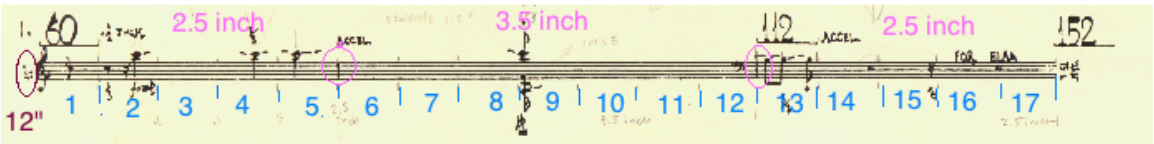

Figure 3.2. The first movement of *Seven Haiku* ©1960 by Henmar Press Inc. Reproduced by kind permission of Peters Edition Limited, London

[263] Dunn, 10.

The meaning of rhythm in *Seven Haiku* deviates from the role of rhythm in the Japanese haiku in which it is an integral aspect of the formal coherence and beauty. This significantly differs from the first *Haiku* in which the phrase structure follows the three-part division of the Japanese haiku. How far *Haiku* and *Seven Haiku* reflect the influence on Cage of Blyth's book and Suzuki's lectures is discussed below (3.4)

Cage played with the haiku numbers 5 and 7 further. The ratio 5:7 is apparent in the two *haiku* works (5 movements and 7 movements), and also in the first movement of *Seven Haiku*. The entire length of the movement is marked as 12 seconds, although calculation of the relationships between metronome markings and tempo fluctuations suggests that it takes slightly over 12 seconds (see Chapter 6). The first measure takes 5 seconds because the metronome marking of the first measure is a crotchet = 60, thus, the rest takes approximately 7 seconds. These numbers, including metronome speeds and fluctuations, are said by Cage in "Composition as Process" (1958) to be the result of chance operations. As the text explaining the compositional procedure of *Music of Changes* (1951) states, "it was not possible to know the total time-length of the piece until the final chance operation, the last toss of coins affecting the rate of tempo, had been made."[264] According to the composer Christian Wolff, who gave Cage a copy of the *I Ching* as honorarium for his composition lessons sometime between the end of 1950 and the beginning of 1951,[265] Cage never manipulated the results of chance operations. However, the appearance of the perfect ratio 5:7 in the first movement of the work makes this questionable.[266] As the first

[264] John Cage, "Composition as Process" (1958) in *Silence*, 18.
[265] Revill, 131.
[266] In his lecture-recital given at the IMR on 12 May 2014.

haiku was composed after the second *haiku*, it is possible that Cage made a conscious, intellectual "choice" to present a riddle.[267]

There is other evidence suggesting Cage's deliberate selection for the result of the *I Ching*. Cage wrote to David Tudor in early June 1951 about tempo changes in the second movement of *Music of Changes*:

> Mostly the news regards the music I'm writing, but that is so detailed that only it will tell you about it. I now have a kind of schedule whereby I toss 80 to a 100 hexagrams before going to bed, so that my day's work is laid out for me when I arise. It is interesting to note that the coins seem to know that they are involved in producing a long movement, for after 3 pages (most of which you saw) of tempo changes the next 3 settle to one tempo, accelerate to another which holds through the next 3, ritard then to another which again holds! And all slow tempi (80, 88, 72 (homage (no doubt) to M.F.), so that the coins are aware, clearly, that this is not only a long piece but a 2nd movt. However there are frequent changes of the mobility-immobility relation (which never took place in the part you have).[268]

What should one make of Cage's report on the coins' almost submissive behaviour? Were the coins "aware, clearly, that this is not only a long piece but a 2nd movt" by their will or did Cage somehow manipulate and alter the coins' will to fit to his preference for a "slow second movement," in the tradition of Western Classical music? Whether Cage's writing can be seen as the naïve, innocent, ecstatic wonderment of experiencing miracles or as a confession of his guilty operations remains debatable and calls for further discussion.

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[267] The first *haiku* was composed on 21 January 1952 and the second on 16 June 1951. The rest of the *haikus* have no date. See "Seven Haiku," in *A John Cage Compendium*, < http://cagecomp.home.xs4all.nl/music.htm>, last accessed on 6 October 2013.
[268] Iddon, 11.

3.2.2 Blyth's *Haiku* and Cage

Cage's first reference to Blyth's book *Haiku* (1949)[269] is found in "Satie Controversy" (1950):

> If we glance momentarily at R.H. Blythe's [*sic*] book on *Haiku* (the Japanese poetic structure of five, seven, and five syllables), we read (p. 272): "Haiku thus makes the greatest demand upon our internal poverty. Shakespeare (cf. Beethoven) pours out his universal soul, and we are abased before his omniscience and overflowing power. Haiku require of us that our soul should find its own infinity within the limits of some finite thing."[270]

Cage frequently referred to the book in his lectures, e.g., "Lecture on Something"[271] (c.1951-52) and "Julliard Lecture" (1952).[272] Prior to *Haiku,* Blyth had also published *Zen in English Literature and Oriental Classic* (1942), a book which is also mentioned in Cage's writing.[273]

Reginald Horace Blyth (1898-1964) was born in Essex, and studied at the University of London.[274] While at the university, he met Akio Fujii who recommended Blyth to teach as an assistant professor in Korea. After moving there in 1924, Blyth became interested in Japanese culture, particularly poetry, such as haiku and *senryū*, and in Zen Buddhism. He was fascinated with Daisetz Suzuki's *Essays in Zen Buddhism (First Series)* (1927).[275] Suzuki became a friend after Blyth moved to

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[269] The first volume of *Haiku* discusses not only the haiku, but also cultural background of how the haiku was developed. Other Japanese cultural forms are also included here. The remaining volumes contain selections of haikus, and categorize them into four seasons.
[270] Cage, "Satie Controversy," 90. The quotation is taken from the first volume of Blyth's *Haiku*. Cage added "(cf. Beethoven)" to Blyth's original writing.
[271] John Cage, "Lecture on Something," in *Silence: Lectures and Writings* (London: Marion Boyars, 1978), 131.
[272] John Cage, "Julliard Lecture," in *A Year from Monday* (London: Calder and Boyars, 1968), 98.
[273] R.H. Blyth, *Zen in English Literature and Oriental Classic* (Tokyo: The Hokuseido Press, 1942); Cage, "Lecture on Something," 143.
[274] Blyth, *The Genius of Haiku: Readings from R.H. Blyth on poetry, life and Zen*, with an introduction by James Kirkup (London: The British Haiku Society, 1994), 2-11.
[275] Daisetz Suzuki, *Essays in Zen Buddhism (First Series)* (London: Luzac, 1927).

Kanazawa where the Zen master resided.[276] According to Suzuki's diary, he visited Blyth at the *Daishi Kōtō Gakkō* (the former Kanazawa University) on 17 October in 1941.[277] Blyth was in prison during WWII; after the war, he helped Suzuki edit the English monthly *Cultural East*.[278] Based on this experience and with his knowledge of the Japanese language, Blyth published a number of books on haiku, Zen, and Japanese culture and introduced them to Western readers.

In the first volume of *Haiku*, Blyth explores the history and aesthetics of haiku and its "spiritual origin," which include Buddhism and Zen.[279] In "Preface" he states, "Haiku are to be understood from the Zen point of view."[280] This is an overstatement as haiku started as a short poem of joke and wit; however, Blyth's presentation of haiku as a type of Zen art must have appealed to Cage sufficiently for him to use its structure in his works.

Blyth explains the essential characteristics of haiku:

> This 5, 7, 5 has a wave-like character of flow, suspense and ebb, it is symmetrical, yet in odd numbers. Further, there is a kind of syllogistic nature about the form which gives it the utmost clarity while actually containing no logical elements, often no intellectual connections between the parts.[281]

Blyth's observation of the form of haiku as something lacking "logical elements" and having "no intellectual connections between the parts" is import to note. He also refers to the *kigo*:

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[276] R.H. Blyth, *The Genius of Haiku: Readings from R.H. Blyth on poetry, life and Zen*, 2-11. Blyth moved to Japan in 1940.
[277] Daisetzu Suzuki, *Eibun Nikki 1940-1942* (Matsugaoka Bunko, 2011), 80.
[278] Daisetzu Suzuki, *Eibun Nikki 1946-1949* (Matsugaoka Bunko, 2011), 4.
[279] This section consists of ten subsections: (1) Buddhism; (2) Zen Bashō and Zen; (3) Taoism; (4) Chinese Poetry; (5) Confucianism; (6) Oriental Art; (7) Waka; (8) Renku; (9) Nō, Ikebana, Cha no Yu; (10) Shinto.
[280] Blyth, *Haiku*, vol. 1, 5.
[281] Ibid., 328-332.

> There is almost always a season word in haiku. This word may give the atmospheric background, it may be a kind of seed, a trigger which releases a whole world of emotion, of sounds and scents and colours.[282]

Blyth interprets the most famous haiku by Bashō:

Fu-ru-i-ke-ya	The old pond;
Ka-wa-zu-to-bi-ko-mu	A frog jumps in-
Mi-zu-no-o-to	The sound of the water
(Matsuo Bashō, 1686)[283]	(Translated by Blyth)

> Bashō's all-too-famous *Furu-ike ya*, the sound of the water is not a consequence of the presence of a pond, and the jumping in of a frog; these are not even antecedent circumstances. The old pond is there; it exists in its own right and has intrinsic value, as we see by the particle *ya.* The jumping in of the frog is grammatically adjectival, so that the sound of the water is not consequent, either in reason or in time, upon the jumping in of the frog. Both are coexistent, that is, coeternal. The old pond continues in time; the jumping in and the sound of the water are timeless. Or we may say, conversely, that the silence of the old pond continues timelessly, whereas the sound of the water is as a bubble upon that river of silence. This mystical and also mystifying atmosphere is due to the absence of thought, the transcendence of cause and effect, but a Japanese reader of haiku is far from aware of all this. He simply rejects intellectual components as 'not haiku' instinctively. Moral elements are also rejected as being generalities. Thus haiku has nothing to do with the Good, the True, or the Beautiful. There is nothing good, true, or beautiful about the sound of the water of the pond which this frog jumps into.[284]

Blyth's narration clearly reveals his European background. First, he draws our attention to the *non-consequential* relationship among the three objects: a pond, the sound of water, and the jumping in of a frog. For him, this signifies the absence of *logic* and of cause and effect. Then, he points out that two of the objects mentioned cannot be measured in time: there is the still, timeless pond and the sound of the water made when the frog jumps in. The timing when the frog jumps in is unknown. He uses the analogy of the word "river," evoking the image of flowing time. This suggests that Blyth's interpretation is based on the premise that time flows like a

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[282] Ibid., 335.
[283] See 30 different translations of this haiku at <http://www.bopsecrets.org/gateway/passages/basho-frog.htm>, last accessed on 30 September, 2012.
[284] Blyth, *The Genius of Haiku: Readings from R.H. Blyth on poetry, life and Zen,* 70.

river, and thus the scenery depicted by Bashō is "mystical" and "mystifying." This contradicts the notion of time advocated by the Zen monk Dōgen (1200-1253), who rejects the idea of continuously flowing time and considers time to be the succession of the now.[285]

Blyth's approach differs from that of the Japanese haiku poet Kusatao Nakamura's interpretation. Nakamura considers the same haiku to be one of Bashō's most successful examples of how the haiku poet simply portraits the scenery with a limited number of symbolic nouns and invites the readers to contemplate on it without imposing his own interpretation.[286]

Blyth presents haiku as non-intellectual, non-moral, and non-aesthetic:

> Positively, the haiku must express a new or newly perceived sensation, a sudden awareness of the meaning of some common human experience of nature or man. Negatively, and more importantly, it must, above all things, not be explanatory, or contain a cause and its effect….On the other hand, Japanese haiku is sometimes weak because, though it does not add human emotion to poetical sensation, it does not add the human will to the will of nature.…Haiku avoids the two most interesting parts of human life, war and sex….But what the haiku poets discovered, though it was never put into words explicitly, was that poetry is not thought, is not emotion, is not beauty, is not morality, is not religion, but something else. And if thought and emotion and beauty and so on are considered by someone as desirable, then we may say to such a person, 'Seek ye first the kingdom of poetry, and all these things shall be added unto you.'[287]

In summary, Blyth sees haiku as having no explanation, no cause and effect, no emotion, no human will, no thought, no beauty, no morality, and no religion.

This nonlinear temporal world of haiku seems to have appealed to Cage. Cage refers to the haiku in the context of form:

> …no matter how rigorously controlled or conventional the structure, method, and materials of a composition are, that composition will come to life if the form is not controlled but free and original. One may cite as examples the sonnets of Shakespeare and the *haikus* of Basho.[288]

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[285] Yorizumi, 98. Cf. Chapter 1.
[286] Nakamura, 147.
[287] Blyth, *The Genius of Haiku: Readings from R.H. Blyth on poetry, life and Zen,* 70.
[288] John Cage, "Composition as Process. II. Indeterminacy" (1958), in *Silence*, 35.

This reminds us of how Blyth narrates the form of haiku as something illogical and lacking intellectual connection between the parts.

In the quotation above, Cage uses the keywords underpinning his compositional ideas: structure, method, material, and form. The first three are defined in "Forerunners of modern music" (1949):

> *Definition*
> Structure in music is its divisibility into successive parts from phrases to long sections. Form is content, the continuity. Method is the means of controlling the continuity from note to note. The material of music is sound and silence. Integrating these is composing.

In the same article, he also states:

> …structure is properly mind-controlled. Both delight in precision, clarity, and the observance of rules. Whereas, form wants only freedom to be. It belongs to the heart; and the law it observes, if indeed it submits to any, has never been and never will be written.[289]

In "Defence of Satie" (1948), form in music is defined as "the morphological line of the sound-continuity":

> Music is a continuity of sound. In order that it may be distinguishable from nonbeing, it must have a structure; that is, it must have parts that are clearly separate but that interact in such a way as to make a whole. In order that this whole may have a quality of being alive, it must be given form. Form in music is the morphological line of the sound-continuity. To illustrate this differentiation between structure and form, which may seem at first only arbitrary set of definitions, let me point out that many poets make use of a sonnet structure to make word-continuities; each sonnet, however, has its own life and each line, that is, its own form, which is characteristic of it. Or to give another illustration, we all have in common the fact of our structure as human beings, but the way in which we live, that is, the form of our life, is individual. The continuity of actions for each one of us is different.[290]

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[289] John Cage, "Forerunners of modern music," *The Tigers Eye* (March 1949); reprinted in Jean-Jacques Nattiez, ed., *The Boulez-Cage Correspondence*, translated and edited by Robert Samuels (Cambridge: Cambridge University Press, 1993), 38-39.

[290] John Cage, "Defence of Satie," in *John Cage: Documentary Monographs in Modern Art* edited by Richard Kostelanetz (New York: Praeger Publisher, 1970), 78.

Here, Cage refers not to a haiku, but to a sonnet. In "Lecture on Nothing" (circa1949-1950), he further clarifies how his idea of form is different from that of the Western conventional ideal:

> What I am calling poetry is often called content. I myself have called it form. It is the continuity of a piece of music. Continuity today, when it is necessary, is a demonstration of disinterestedness. That is, it is a proof that our delight lies in not possessing anything. Each moment presents what happens. How different this form sense is from that which is bound up with memory: themes and secondary themes; their struggle; their development; the climax; the recapitulation (which is the belief that one may own one's own home).[291]

From these writings, one can conclude that Cage found a new possibility of form and structure in the Japanese haiku. The haiku has a structure (17-syllable, 3-part division, and 5-7-5-pattern), but its form is different from that of the Western musical tradition. Blyth's writing, introducing the haiku as having no logical, consequential relationship, such as cause and effect, influenced Cage's understanding of form, i.e., the continuity of music. Cage's new idea of form in which "Each moment presents what happens" seems to accord with Blyth's view of the form of the Japanese haiku.

3.3 Daisetz Suzuki and Cage

3.3.1 A Review of Cage's Writings and Scholarly Works

As pointed out in Chapter 2, Cage's attendance at Suzuki's lectures at Columbia has frequently been discussed in the literature. However, Cage's vague memory and scholars' reliance on Cage's interviews as the only source of reference have caused confusion about the dates and periods of his lecture attendance. This section reviews Cage's own writings and other scholars' recent findings on this matter.

[291] John Cage, *Silence*, 111.

It seems that Cage's interest in Zen dates from the 1940s. In an article he published in 1946, he refers to Coowaraswamy's book *The Transformation of Nature in Art* (1934). Although Coowaraswamy discusses Zen as well as *nō* and lists Suzuki's work in the bibliography,[292] Cage discusses Indian philosophy in his article, but does not refer to Zen. Another early influence may have been an essay by Alan Watts, published in 1948, in which Suzuki's works as well as *The Huang Po Doctrine of Universal Mind* are introduced.[293] Cage himself points to the influence of Aldous Huxley's book *The Perennial Philosophy* (1946),[294] telling Peter Gena:

> "Just at the time, when I knew that I needed help, and needed it in terms of my mind, Daisetz Suzuki came from Japan to teach the philosophy of Zen Buddhism. And I had already studied a book called *The Perennial Philosophy* of Aldous Huxley, which brought together remarks by teachers in various religions, cultures, and times. And I had chosen from that anthology Zen Buddhism as the flavor [rasa?] that tasted best to me."[295]

As Cage's interest in Zen developed, it is clear that Suzuki's teaching became a major influence on his thinking. Even before Cage attended the lectures given by the Japanese master at Columbia University in the early 1950s, Cage was aware of Suzuki's work, writing to Pierre Boulez on 17 January 1950, "Suzuki's works on Zen Buddhism are about to be published."[296] Jean-Jacques Nattiez (1993), the editor of *The Boulez-Cage Correspondence*, states in the footnote:

> At this point, Cage's knowledge of Suzuki would have been entirely through his writings, many of which, dating from the 20s and 30s, were republished between

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[292] Ananda K. Coomaraswamy, *The Transformation of Nature in Art* (New York: Dover Publications, 1934), 38-41; Cage, "The East in the West," 111-115. *Asian Music* 1, no. 1, 15-18.
[293] Haskins, 58.
[294] Aldous Huxley, *The Perennial Philosophy* (London: Chatto & Windus, 1946), 71. Huxley discusses Zen and cites Huang-Po; however, Suzuki's name does not appear in this book.
[295] Gann, 137-8.
[296] Jean-Jacques Nattiez, *The Boulez-Cage Correspondence*, translated and edited by Robert Samuels (Cambridge: Cambridge University Press, 1993), 50.

> 1949 and 1951. Suzuki lectured on Zen at Columbia University, New York in 1951 (JP).[297]

In his "Juilliard lecture" (1952) Cage comments on his attendance at Suzuki's lectures:

> In the course of a lecture last winter on Zen Buddhism, Dr. Suzuki said: "Before studying Zen, men are men and mountains are mountains. While studying Zen things become confused: one doesn't know exactly what is what and which is which. After studying Zen, men are men and mountains are mountains." After the lecture the question was asked: "Dr Suzuki what is the difference between men are men and mountains are mountains before studying Zen and men are men and mountains are mountains after studying Zen?" Suzuki answered: "Just the same only somewhat as though you had your feet a little off the ground." Now, before studying music, men are men and sounds are sounds.[298]

James Pritchett (1993) reports:

> …Cage connected his musical world of sounds in silence to the Zen concepts of "unimpededness and interpenetration." He explains his understanding of these concepts in a lecture given in 1951 or 1952:[299]

Thus the reports by Peter Gene and Jonathan Brent (1982) and David Revill (1992) that Cage studied with Suzuki in the 40s must be incorrect.[300]

More detailed information is given in the article "Cage and Asia" by David Patterson (2002) in which he also comments on the unreliability of Cage's own recollections:

> In terms of Cage's development, the figure of Suzuki poses some historical difficulties. In his own recollections of the 1940s, Cage often cited Suzuki's lectures at Columbia University as one of the early catalysts of his East Asian studies. Yet his historical memory was characteristically sketchy; at times he recalled attending Suzuki's lectures for two years (Cage & Anderson 1992, p. 54); at others, he claimed it was three. His dating of these lectures was also

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[297] Ibid. JP refers to James Pritchett.
[298] Cage, "Julliard Lecture," 95.
[299] Pritchett, *The Music of John Cage* 74. The author is referred as JP by Jean-Jacques Nattiez.
[300] Revill, 108. He states, "Suzuki lectured at Columbia a number of times, from the late forties until at least 1957"; Peter Gena and Jonathan Brent, 186. Their list of chronological events states, "1945 Separated from Xenia, moves to the Lower East Side. Begins to study the philosophy and classical music of India with Gita Sarabhai, and attends lectures on the philosophy of Zen Buddhism by Dr. Daisetz T. Suzuki at Columbia University (for two years)." Cf. See Chapter 2.

> variable, ranging from 1945-1947 to 1949-1951 (Cage & Anderson 1992, p. 53) But even a cursory investigation into Suzuki's lectures proves that these could not possibly have been events that spurred Cage's East Asian studies, since Suzuki did not even arrive in New York until the late summer of 1950; moreover, he only first lectured publicly at Columbia in March 1951 and was not employed by Columbia until spring 1952, when he taught his first course. Although this redating corrects a popular misconception, it also creates an historic vacuum, for unfortunately, this spurious citation to Suzuki's lectures has been the predominant (and often only) historical reference to Cage's early East Asian studies, and no new information on this period has yet surfaced that might fill the void. There are no extant records at Columbia University that can confirm Cage's actual attendance at Suzuki's lectures, although accounts from fellow auditors verify his presence at least in the spring and fall of 1952. [The author's footnote states: "Verification in the latter semester comes from Earle Brown, who recounts how he and Cage quit early each Friday afternoon while working on the arduous cut-and-splice assemblage of *Williams Mix* to attend Suzuki's lectures (Brown 1992)."] Further, there are very few materials that elaborate on Suzuki's lectures themselves, and oddly, there are almost no official university records that document Suzuki's stay at Columbia.[301]

Other sources suggest that Suzuki's lecture on Asian philosophy was not limited to Zen. Daniel Charles (1989-90) asserts: "He [Cage] was the only composer to attend Daisetz Suzuki Teitaro's lectures on *Kegon* (Chinese: Hua-yen) Buddhist philosophy at Columbia University from 1951 onwards."[302] The Japanese scholar Ryōsuke Shiina (2003) also notes that Suzuki lectured on *Kegon*.[303]

In her book *Where the Heart Beats: John Cage, Zen Buddhism, and the Inner Life of Artists* (2012), Kay Larson provides information on Suzuki's teaching in the U.S. in the early 1950s:

> Suzuki was invited to stay on to lecture at the University of Hawaii through February 1950 (after international conference of philosophers in Hawaii on the subject of Reality). Then he moved to California to teach at Claremont Graduate School through May. The [Rockefeller] Foundation was considering sponsoring Suzuki in a lecture and teaching tour through universities and theological schools in the eastern United State….Suzuki began Rockefeller Foundation lecture series soon after he arrived. He spoken on "Oriental Culture and

[301] Patterson, "Cage and Asia: history and sources," 53. Patterson specifies the date of Suzuki's first public lecture at Columbia as March 1951 and the commencement of his course as spring 1952; his reference is not provided.
[302] Daniel Charles, "De-Linearizing Musical Continuity: John Cage's Aesthetics of 'interpenetration without Obstruction,'" 31.
[303] Shiina, 111.

> Thought" at Princeton, Columbia, Harvard, Chicago, Yale, Cornell, Northwestern, and Wesleyan. Three talks at Columbia University were scheduled for March 1951.[304]

She goes on to comment on the lectures at Columbia:

> In March 1951, D.T. Suzuki gave an important set of three lectures at Columbia University: "The Development of Buddhist Philosophy in China" on Thursday, March 1; "Kegon (Hua-yen) Philosophy" on Tuesday, March 6; and "Kegon Philosophy and Zen Mysticism" on Thursday, March 8. These lectures summed up Suzuki's researches to date and were written (as we'll see) in the midst of his preparations for the new English edition of *Essays in Zen Buddhism: Third Series*, where the dialogue on "something" and "nothing"—the dharma discourse between Shen Hui and his monk—appears early on in the text. So it's tempting to consider the Zen in the air that spring, and what it might have contributed to Rauschenberg's painting.[305]

The source of information is not specified by Larson.

The editor of *Haiku* Don Gillespie (2012) links the Columbia lectures to the composition of *Haiku II, III, IV,* and *V*:

> … the powerful influence on Cage of the Zen Buddhist master Daisetz Teitaro Suzuki, who gave three lectures at Columbia University in March 1951. It cannot be a coincidence that Cage composed Haiku II, III, IV, and V during that month.

Haiku I was composed on 5 October 1950, and Cage resumed the rest of the work on 5 March 1951.[306] As Gillespie does not give any source of reference, how he came to this conclusion is unclear.

3.3.2 Matsugaoka-Bunko Materials: The Diaries and Transcript of Suzuki

In this section, Suzuki's diaries from 1920 to 1954,[307] the biography by Kiyohide Kirita (2011),[308] and the transcript of "The Development of Buddhist

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[304] Larson, 165-66.
[305] Ibid., 229.
[306] The dates of composition are: Haiku II: 5 March 1951; Haiku III: 6 March 1951; Haiku IV: 8 March 1951; Haiku V: 16 March 1951.
[307] Daisetz Suzuki, *Eibun Nikki* (Kamakura, Matsugaoka Bunko, 2011). The diaries between 1938 and 1940 as well as between February and December 1949 are missing.

Thought in China," Suzuki's first official lecture at Columbia in March 1951, were examined in order to trace Cage's developing knowledge and interest in Suzuki's teaching.

3.3.2.1 The Diaries

Table 3.1 lists important dates of Suzuki's activities in the U.S. in chronological order.

16 June 1949	Suzuki left Japan on to attend the Second East- West Philosopher's conference in Hawaii. (Although he had been already given lectures in American universities during 1930s, it was 1949 that Suzuki first returned to the U.S. after the second war.) Following the conference he lectured at the University of Hawai and stayed there until the end of January.[309]
1 February 1950	flew to Los Angels.[310] (This means that the claim made by Revill as well as Peter Gene and Jonathan Brent—Cage learnt with Suzuki during 1940s—proves inaccurate.)
21 September 1950	Arrival in New York. Actively engaged in lecturing and meeting new people.[311]
23 September 1950	Met several people at "the library of Oriental Department at Columbia University" (this probably refers to the East Asian Library).
25 September	met Dr. "Bolton of Asian Institute, belonging to Columbia University."[312]
7 October 1950	Started a series of 12 lectures "Living by the precepts of Zen Buddhism" every Saturday evening.[313] These lectures took
place	at Church Peace Union at 170 E on 64th Street.[314] He also frequently visited "Zen Institute on 65th Street."[315]

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[308] Kiyohide Kirita, ed., "Nenpu," in *Matsugaoka Bunko Sōshō Dai Ni: Suzuki Daisetsu Kenkyū Kiso Siryō* (Kamakura, Matsugaoka Bunko, 2011).
[309] Kiyohide Kirita, ed. "Nenpu," in *Matsugaoka Bunko Sōshō Dai Ni: Suzuki Daisetsu Kenkyū Kiso Siryō* (Kamakura: Matsugaoka Bunko, 2011), 155;
[310] Daisetz Suzuki, *Eibun Nikki 1950-1951* (Kamakura, Matsugaoka Bunko, 2011), 4.
[311] Kiyohide Kirita, ed. "Nenpu," in *Matsugaoka Bunko Sōshō Dai Ni: Suzuki Daisetsu Kenkyū Kiso Shiryō* (Kamakura: Matsugaoka Bunko, 2011), 162; Suzuki, *Eibun Nikki 1950-1951* 29.
[312] Kiyota, 162; Suzuki, *1950-1951*, 30.
[313] Kiyota, 162.
[314] Suzuki, *1950-1951*, 35.
[315] Ibid., 31. He seems to refer to the First Zen Institute of America founded by Ruth Fuller Sasaki.

30 October 1950	Visited by Alan Watts, a writer and lecturer of Zen. Lunched together.[316]
5 November 1950	Gave a talk on Buddhist mysticism at Ramakrishna-Vedanta Centre, which was "Well attended."[317]
10 December 1950	Gave a talk on "Buddhist mysticism" at "Asia Institute."
17 December 1950	Attend Allan Watts' lecture on Zen.[318]
2 January 1951	Went to Columbia University to "talk with Tsunoda about possibility of" his "lecturing at Columbia sometime next year, on Kegon and Zen."[319]
12 January 1951	Talked to "Niehbul's ethics class on Zen and Ethics" at Columbia University.[320]
1 March 1951	Commenced three lectures on *Kegon* philosophy at
Columbia.[321]	The first lecture "The Development of Buddhist
Thought in	China" took place at 4:45 pm on Thursday.[322]
6 March 1951	The second lecture "Kegon (Hua-yen) philosophy"
8 March 1951	Third lecture "Kegon philosophy and Zen mysticism" took place at Harkness Theatre located in the basement of Butler Library, starting at 4:45 pm.[323]
3 May 1951	Went to Columbia University to talk to a group of students studying with "Dr. Fries[s], professor of Philosophy of Religion."[324]

Table 3.1. Important dates and events in the diaries of Suzuki

These entries accord with the dates and information given in Larsen's work.

Larsen (2012) reports that Cage and Watts became friends through a mutual friend Campbell and raises the possibility that Cage learnt of and possibly attended some of these early lectures given by Suzuki before the ones he gave at Columbia in March:

> Watts stayed in the New York area until he left for San Francisco in February 1951. He was thrilled when Cage's friend Joseph Campbell managed to

[316] Ibid., 34.
[317] Ibid., 35.
[318] Ibid., 39-40. The Asia Institute where both Suzuki and Watts lectured at refers to the East Asian Institute founded in 1949 (later Weatherhead East Asian Institute) of Columbia University. Suzuki states that this "Asian Institute" belongs to Columbia University.
[319] Suzuki, *1950-1951*, 41.
[320] Ibid., 42. Kirita states the name of tutor as Prof. Gickbul, 195.
[321] Ibid., 47.
[322] Kiyota, 116; Kiyotaka Kimura, "Kōki," *Matsugaoka Bunko Kenkyū Nenpō,* 22 (2008), 99.
[323] Kiyota, 116.
[324] Suzuki, *1950-1951*, 55.

> engineer a grant for him from the Bollingen Foundation. The money would finance Watts's research into myth, psychology, and Oriental philosophy, and would keep him afloat during a turbulent period of divorce and transition. Through the last half of 1950, a grateful Watts issued dinner invitations to Campbell, his wife, Jean Erdman, John Cage, and Ananda Coomaraswamy's widow, Dona Kuisa, and Argentinean photographer who was editing her husband's work in preparation for its publication with the Bollingen Foundation… Late in 1950, Watts brought Campbell, Cage, Erdman, and Mrs Coomaraswamy to his house for an elaborate New Year's Eve dinner that went on all night.[325]

She believes, "His friendships with Watts and Joseph Campbell would naturally have supplied him [Cage] with knowledge of these events [lectures of Suzuki and Watts took place in New York through fall and winter]. If he needed more reasons to go, Watts and Campbell would have supplied him with several."[326] It is possible therefore that Cage was informed of Suzuki's lecture at the Asian Institute where Watts' lecture also took place. Meanwhile, Suzuki was also giving lectures on Zen at Buddhist Church.[327] According to Cage himself, he attended Suzuki's lectures *only* at Columbia University; however, there were other possibilities and opportunities to attend Suzuki's lectures in New York as early as autumn 1950 if Cage was willing to explore.[328]

Up to this point, Suzuki's lectures at Columbia were only temporary; however, on 26 May 1951, he received a letter in Hawaii, confirming his regular course at Columbia University during the semester from February to June 1952.[329] On 2

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[325] Larsen, 169.
[326] Ibid., 169.
[327] Suzuki, *1950-1951,* 49-50.
[328] Iddon, 9. Cage refers to Suzuki's idea in a letter to David Tudor: "…another hr with Minna Lederman who began to take the music more seriously when I explained Suzuki's identification of subject and object vs. the usual cause and effect thought. She even invited me to dinner to talk further. And then we will hear Varese's Ionisation up at Julliard with Dallapiccola, Krenek and Stravinsky." This was written between 21 and 27 January 1951. "Suzuki's identification of subject and object vs. the usual cause and effect thought" derives from either his book or lecture is unclear in Cage's writing.
[329] Suzuki, *1950-1951*, 57.

February 1952, Suzuki came back to New York and resided in Butler Hall.[330] On 5 February, he commenced a course on *Kegon* at Columbia University, taking place every Tuesday and Thursday from 5 pm to 6 pm.[331] If not the lectures in March 1951, Cage must have referred to this course in his "Julliard Lecture" discussed above. Suzuki also continued with Saturday lectures on Zen at Peace Union Church as well as at Buddhist church every Friday evening.

From 3 October 1952, Suzuki started another semester, lecturing on *Kegon* at Columbia.[332] These lectures took place every Friday from 4:10 pm to 6 pm in Philosophy Hall.[333] This coincides with Patterson's findings of Cage's lecture attendance on Friday afternoons with Earle Brown.[334] Suzuki's regular course commenced in the winter semester of 1952 and, except for the fall semester of 1954, continued until 1957.[335]

Cage states that Suzuki gave lectures in Philosophy Hall:

> During recent years Daisetz Teitaro Suzuki has done a great deal of lecturing at Columbia University. First he was in the Department of Religion, then somewhere else. Finally he settled down on the seventh floor of Philosophy Hall.[336]

As shown above, Suzuki's regular course which commenced in February 1952 took place in Philosophy Hall.[337] Prior to these courses, his talk and lectures at Columbia took place in the Asian Institute in December 1950; in a class of Prof. Niehbul in January 1951; in Harkness Theatre in March 1951; and a class of Dr. Fries, "a

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[330] Kiyota, 172.
[331] Ibid.
[332] Kiyota, 178. Gishin Tokiwa, "Foreword to the Second Group of Papers," in Daisetz Suzuki, *Eight Lectures on Chan* (Kamakura: Matsugaoka Bunko, 2011), 55
[333] Kiyota, 179-180. It could have been possible that the entire course took place in Philosophy Hall; however, Kiyota's biography does not specify where other lectures were given.
[334] See the quotation earlier from Patterson's article: Patterson, 53.
[335] His courses in 1953-1954 was "Philosophy of Zen and Religions."
[336] Cage, *Silence*, 262.
[337] Suzuki, *1952-1953*, 39.

professor of Philosophy of Religion" on 3 May.[338] Coincidentally, the first performance of *Imaginary Landscape No. 4*, one of Cage's chance operation works, took place at Columbia University's McMillin Theatre in May 1951.[339] Gillespie's claim that the change of Cage's compositional styles in *Haiku* suggests Cage's first attendance at Suzuki's lectures in March 1951 becomes more convincing.[340]

3.3.2.2 Zen and Kegon

Suzuki's diaries show that he lectured on *Kegon* as well as on Zen. If Cage attended Suzuki's first official lecture at Columbia, this lecture focussed on *Kegon*. Moreover, the concepts of "interpenetration" and "unimpededness" derive from *Kegon* philosophy, not from Zen (see 3.3.2.3).

As scholars disagree on whether Suzuki lectured on Zen or on *Kegon*, the difference between these two schools of Buddhism needs clarification. *Kegon-kyō* is a Buddhist text compiled in China, translated from Sanskrit texts. In 699, at the completion of translating its eighty volumes into Chinese, the monk Hōzō lectured on its content to the Chinese empress Sokuten-Bukō.[341] This is the beginning of *Kegon-shū* as a new school of Buddhism. The *Kegon-shū* also travelled to Japan, and the *Kegon-kyō* was transcribed in 722. Although this school did not expand in Japan, the text influenced Japanese arts and belief systems.[342]

Zen is the Japanese translation of *dhyāna*, almost equivalent to the word yoga. Yoga was developed in India as the most important religious, meditative practice of Buddhism which sought to attain spiritual enlightenment through balanced breathing.

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[338] Suzuki, *1950-1951,* 55.
[339] Kenneth Silverman, *Begin Again: A Biography of John Cage* (Evanston: Northwestern University Press, 2010), 103.
[340] Gillespie, "Editorial Note."
[341] Hōzō's concept of time is discussed in Chapter 1.
[342] Watanabe, 174-77.

Thus, Zen is the foundation of all schools of Buddhism. In China, Zen was already known when Buddhism first travelled from India. *Zen-shū*, the Zen school of Buddhism, was established by a group led by Bodhidharma around 520. When Buddhism was taken up in Japan, Zen also became known. The monk Eisai started *Rinzai-shū* as the first official Zen school of Buddhism in 1202, and the monk Dōgen followed this with another school, *Sōtō-shū*, in 1244.[343]

3.3.2.3 Transcript of Suzuki's Lecture: "Unimpededness" and "Interpenetration"

Scholars have discussed that Cage learned two concepts "unimpededness" and "interpenetration" from Suzuki's lectures. For instance, Pritchett states:

> In particular, Cage connected his musical world of sounds in silence to the Zen concepts of "unimpededness and interpenetration."

David Nicholls states: "The compositional processes employed in the *Music of Changes*—in order that the sounds might be themselves or (in Zen terms) be unimpeded and interpenetrating."[344]

These two words are explained as Zen concepts; however, in Suzuki's transcript of "The Development of Buddhist Thought in China," his first lecture at Columbia on 1 March 1951, the concepts are discussed in the context of *Kegon* philosophy:[345]

> There are some key terms in the understanding of Kegon philosophy, which I will here try to explain before I go on. The first ones with *ri* and *ji, li* and *shih* in Chinese. We may interpret *ri* as corresponding to the idea of "the all" as the object of *prajñā*-intuition, and *ji* as equating with the idea of individuation which is the function of *vijñāna. Ri* is the absolute One in its

[343] Ibid., 159-166.
[344] David Nicholls, 52.
[345] There is still a possibility that Suzuki covered the same content during his courses on *Kegon* in the spring and fall semesters of 1952. Therefore, I do not intend to conclude that Cage definitely attended the lecture on1 March 1951.

> undifferentiatedness, while *ji* is this world of manyness. Some times *tai* and *yū* (in Chinese *t'i* and *yung*) are used for *ri* and *ji*. *Tai* or *t'i* is something that stands behind a thing and holds it together, and *yung* or *yu* is its activity.
> *Ri* in Buddhist philosophy is not a postulated idea, it is to be directly or intuitively grasped by *prajñā. Ri* therefore cannot be reached by the process of intellection; if it is thus reachable, it becomes an abstraction; it falls into the domain of *vijñāna* speculation.
>
> The reality-world, that is, *dharmadhātu,* is *ri* in itself and at the same time it is also *ji.* The reality-world can be viewed in two ways, it has two aspects from which we can proceed to understand it. This means that the ultimate reality—we can say that the reality-world is this—is the object of *prajñā,* that is, when the intellect is detached from *prajñā*-intuition and made to go on its own way independently, it will never reach the *dharmadh¯tu* (*Hokkai, fa-chieh*), the ultimate world of Kegon philosophy.
>
> To express this idea, Kegon speaks very much of unimpededness, *mugé* (in Chinese *wu-ai*), which indeed sums up the main doctrine of Kegon; Kegon is the philosophy of *mugé, wu-ai.* Positively expressed, this is the doctrine of interfusion or interpenetration, or we can say that the reality-world of Kegon is a system of indefinitely interlocking ideas, that is, of *ji* and *ri* and between each *ji,* in every possible manner. This relationship is expressed by these two terms: *sō-soku* and *sō-nyū* (in Chinese *hsiang-chi* and *hsiang-ju*).[346]

In Chapter 1, I discussed *muge* as a state in which things are free from obstacles and obstruction, and *sōsoku sōnyū* as a state in which all beings are not conflicting but influencing each other.

Cage uses the two keywords in "Composition: To Describe the Process of Composition Used in *Music of Changes* and *Imaginary Landscape No. 4*"(1952):

> It is thus possible to make a musical composition the continuity of which is free of individual taste and memory (psychology) and also of the literature and "traditions" of the art. The sounds enter the time-space centered within themselves, unimpeded by service to any abstraction, their 360 degrees of circumstance free for an infinite play of interpenetration.[347]

Cage also states that these concepts are discussed in Suzuki's lecture:

> In the course of a lecture last winter at Columbia, Suzuki said that there was a difference between Oriental thinking and European thinking, that in European thinking things are seen as causing one another and having effects, whereas in Oriental thinking this seeing of cause and effect is not emphasized but instead

[346]Daisetz Suzuki, "The Development of Buddhist Thought in China," *Matsugaoka Bunko Kenkyū Nenpō* 22 (2008), 182.
[347] John Cage, "Composition: To Describe the Process of Composition Used in *Music of Changes* and *Imaginary Landscape No. 4* ," *Four Musicians at Work* 1, no. 3 (1952), reprinted in *Silence*, 58.

> one makes an identification with what is here and now. He spoke of two qualities: unimpededness and interpenetration. Now this unimpededness is seeing that in all of space each thing and each human being is at the center and further more that each one being at the center is the most honoured one of all. Interpenetration means that each one of these most honoured ones of all is moving out in all directions penetrating and being penetrated by every other one no matter what the time or what the space. So that when one says that there is no cause and effect**,** what is meant is that there are incalculable infinity of cause and effects, that in fact each and every thing in all of time and space is related to each and every other thing in all of time and space. This being so there is no need to cautiously proceed in dualistic terms of success and failure or the beautiful and the ugly or good and evil but rather simply to walk on "non wondering," to quote Meister Eckhart, "am I right or doing something wrong."[348]

Cage's explanation of interpenetration as "incalculable infinity of cause and effects, that in fact each and every thing in all of time and space is related to each and every other thing in all of time and space" coincides with the idea of time and space that the *Kegon* monk Hōzō explained.[349]

Another interview shows that Cage was aware that Suzuki taught *Kegon* philosophy*:*

> There was another lecture that Suzuki gave that I keep thinking of all the time. We have in the West this business of trying to find out, among a plurality of events in time and space, which one is the best. And then thinking of ourselves as separate from that and as desirably moving toward it. But in the Kegan philosophy which Suzuki taught, each being, whether sentient as we are, or nonsentient as sounds and rocks are, is the Buddha: and that doesn't mean anything spooky. It simply means that it is at the center of the universe. So that what you have in Kegan philosophy is an endless plurality of centers, each one world-honored. —Richard Kostelanetz et al. (1977)[350]

This quotes most explicitly summarizes how Suzuki's lecture influenced Cage's understanding of time and musical temporality. Cage points out that in Western (musical) thinking, there is a particular goal, which is considered the best, and that the composer chooses to move music towards it. But Suzuki's lecture showed that the world was consisting of the infinite interplay between cause and effect, and that

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[348] Cage, *Silence*, 46-47.
[349] Cf. see Chapter 1.
[350] Richard Kostelanetz, *Conversing with CAGE: second edition,* 54.

events did not happen to reach a particular goal or end. This new understanding of the world and temporality gave Cage an opportunity to rethink musical continuity.

This raises the question as to why Cage wrote in his "Julliard lecture" that Suzuki gave lectures on Zen Buddhism.[351] Curiously, in another essay "Composition: To Describe the Process of Composition Used in *Music of Changes* and *Imaginary Landscape No. 4* " (1952) he simply writes, "[Suzuki] spoke of two qualities: unimpededness and interpenetration," "In the course of a lecture last winter at Columbia," without specifying if these ideas derive from Zen or *Kegon* philosophy. This implies that either Cage misunderstood these concepts as Zen teaching, or that he intentionally manipulated the information and wrote in such a manner that the reader would believe that these were Zen ideas. David Patterson (2002) observes how Cage rearranged the order of texts in his collected essays to create a persona.[352] Perhaps, being aware of how *avant-garde* Zen was during the 1950s, Cage wanted his reader and audience to believe that he was a pioneering composer.

Gann introduces some stories revealing Cage's ambiguous understanding of Suzuki's lectures:

> Reportedly, Watts retracted his concerns after reading Cage's writings, but he was not the only one who thought that Cage did not quite get the point. I remember, at the first one in Buffalo festival in 1975, Cage drawing on the blackboard a diagram that Suzuki used to draw: a circle (or oval) crossed by two small parallel lines near the top. The circle was the self, in the widest sense, and the two lines represented the comparatively tiny boundaries of the ego. Cage, quoting Suzuki, talked about how the point was to get past the ego to the entire self, and (not quoting Suzuki) how chance processes were his way of doing that. The following week, however, Cage's composer friend Earle Brown referred again to that diagram and said that he thought the idea was to charm the ego into flowing into the self and becoming more spontaneous, not simply to use the mechanics of chance to bypass the ego.[353]

[351] Cage, "Julliard Lecture," 98.
[352] Patterson, "Words and writings, " 85-99.
[353] Gann, 147.

How seriously was Cage involved in his Zen studies? Was he manipulating the information for the purpose of marketing? These are questions which remain to be answered.

3.4 Analysis of Cage's *Haiku* Works

This section first considers how Cage's learning of the Japanese haiku and Suzuki' lectures influenced his works (3.4.1). It then discusses how Cage's use of absolute time is not compatible with *Kegon* philosophy and how this reflects his early obsession with duration that could be influenced by modern technologies (3.4.2). Finally, it is suggested that the *haiku* works display the characteristics of both linearity and nonlinearity (3.4.3).

3.4.1 Influences of Blyth and Suzuki in the Haiku Works

Blyth's *Haiku* encouraged Cage's new idea of form in which "each moment presents what happens."[354] This new idea of form can be found in both *Haiku* and *Seven Haiku*. Each movement of both works is extremely short, and the music neither develops musical ideas nor builds up any tension. Each movement of *Haiku* contains only three phrases, and there is no sense of modulation. No thematic development is obvious in *Seven Haiku*: for instance, the first movement has only three sound events, which are not related syntactically or motivically. However, there are stylistic differences between Haiku I, Haiku II-V, and *Seven Haiku*, and in these differences I see a transition in Cage's attitude towards musical continuity, suggesting that his ideas were shifting from those of Blyth to those of Suzuki. Haiku I (of *Haiku*), consisting of three phrases, contains limited pitch materials and no modulation

[354] Cage, "Lecture on Nothing," in *Silence*, 111.

(Figure 3.1). Throughout the movement, only eight notes (C, D, E, F, G, A, A flat, and B flat) are used. The first phrase is not developed, and the same pitches are used in the subsequent phrases (except G_6 in m. 7).[355] Because of this harmonic consistency, which is reminiscent of Cage's gamut technique, the music does not exhibit contrasting moods.[356] A lack of dynamic markings might reflect Cage's intention to avoid a climax and contrast; it is not clear if he expected this piece to be performed without dynamic fluctuations or if he left this to the discretion of the performer.

Absence of development and the use of the gamut technique are seen in Haikus II-V; the stylistic differences between Haiku I and these movements are obvious. Firstly, unlike the quasi-tonal Haiku I, the rest of the work employs a chromatic scale. Haikus II and V contain all twelve tones, while Haiku IV has all tones except F. Haikus III does not employ all twelve tones, yet it is highly chromatic, using D-E flat-F# (G flat)-G-A flat-A-B flat-B. Secondly, the continuity of Haikus II-V resembles those created by chance operations, and the syntactical relationship between sounds in these movements is less obvious than that of Haiku I. The melody of Haiku I consists of stepwise motion, and D can be heard as the tonal centre. The sound events of Haikus II-V contain a lot of leaps between registers, obscuring a linear progression in the melodic contour. Thirdly, in Haiku II-V, silence is not always used as punctuation. For example, quaver and crotchet rests at m. 1 in Haiku

[355] A flat is contained in the first, but not the second phrase. B flat is contained in the second, but not the first phrase.

[356] This technique can be found in the works from the mid-1940s, including *Two Pieces for Piano* (1946), *The Seasons* (1947), *Dream* for piano (1948), *In a Landscape* for harp or piano (1948), and *Suite for Toy Piano* (1948). For instance, in *Dream* Cage limits himself to use only A flat, B flat, C, D, E flat, and G for the entire piece. This gamut technique was continuously used in the *String Quartet in Four Parts* (1949-1950), the *Sixteen Dances* (1950-51), and the *Concerto for Prepared Piano and Orchestra* (1950-51).

III are used to show different sonorities (Figure 3.3). Lastly, dynamic markings are notated in Haikus II-V. Loud dynamics can be located occasionally (e.g., *ffz* at mm. 5 and 7 in Haiku II and *mfz* at m. 1 in Haiku III); these, unaccompanied by a *crescendo*, are not necessarily an indication of a climax.

As Gillespie suggests, the stylistic change within *Haiku* seem to display the influence of Suzuki's lectures on Cage's aesthetics. Judging from Suzuki's transcript, what Cage immediately assimilated was the idea of *sōsoku sokunyū*, "a system of indefinitely interlocking ideas," in Cage's word, "incalculable infinity of cause and effects."[357] In this thought process, musical ideas are not developed towards a particular *goal*. In Haiku I, the stepwise motion of the melodic line projects a clear phrase structure, and the long, tonal centre D at the end of the third phrase gives a sense of arrival even though the succession of perfect fifths (at mm.8-9) leaves an impression of an open ending. However, in Haikus II-V the end of the music comes abruptly with a self-contained sound event (e.g., compare the endings of figures 3.1 and 3.3).

The idea of the music having no *goal* is further explored in *Seven Haiku* in which Cage uses chance operations. This compositional method seems to be the way that Cage attempted to conceptualize "infinity of cause and effects." Blyth explained that the Japanese haiku did not have cause and effect; Suzuki explained that the world consisted of indefinitely interlocking ideas. Whether or not Suzuki's lectures were the direct cause of Cage's use of chance operations calls for another discussion; it is clear that Cage referred to *Kegon* philosophy to validate his music and aesthetics.

[357] Suzuki, "The Development of Buddhist Thought in China," 182; Cage, *Silence*, 46-47.

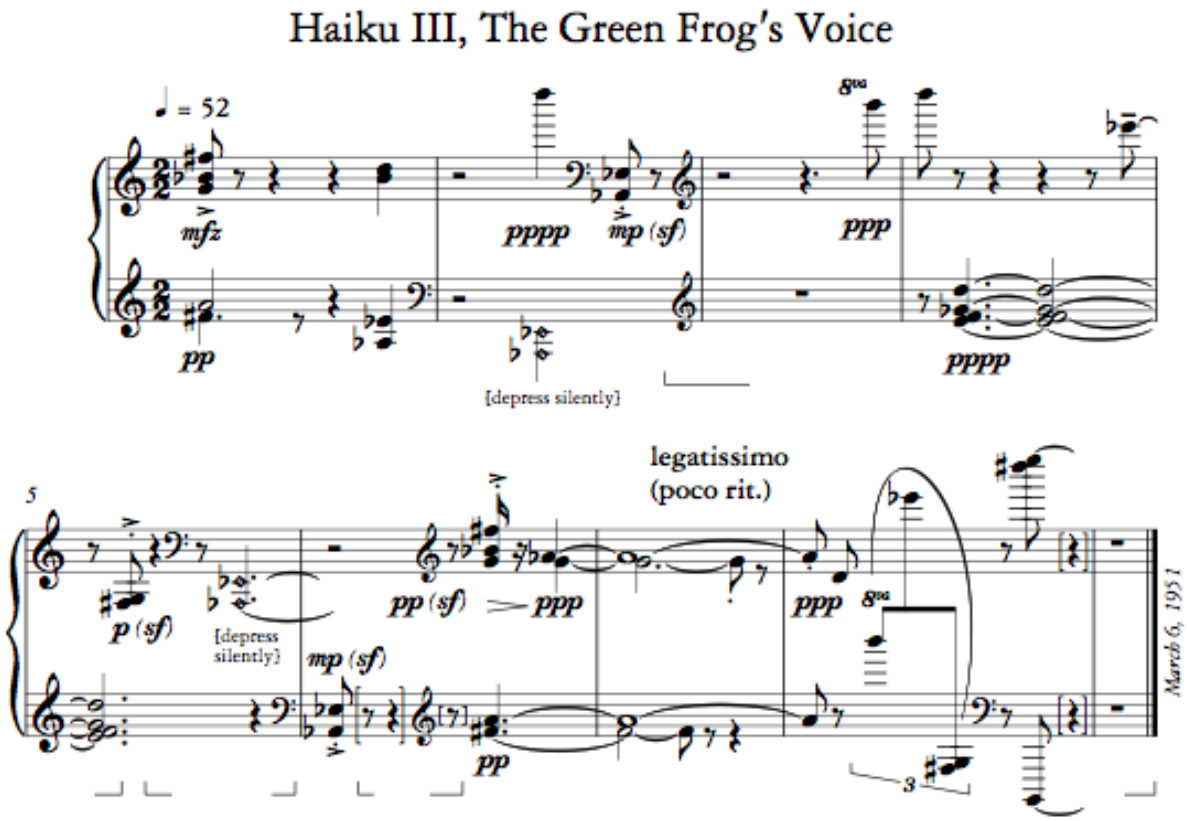

Figure 3.3. The non-syntactic use of rests in m. 1 of Haiku III from *Haiku* ©2012 by Henmar Press Inc. Reproduced by kind permission of Peters Edition Limited, London

The use of chance operations also produced a new type of rhythm, challenging the traditional view of rhythm as recognizable patterns, such as the rhythms of waltz, polonaise, mazurka, and so forth. Cage defines rhythm as "relationships of length of time" (in "Forerunners of Modern Music" (1949)),[358] or "durations of any length coexisting in any states of succession and synchronicity" (in "Experimental Music: Doctrine" (1955)).[359]

The rhythmic differences between Haiku I, Haikus II-V, and *Seven Haiku* seem to display how Cage's definition of rhythm changed over a short period of time, reflecting his learning from Blyth and Suzuki. The rhythmic patterns of *Haiku* can still be considered a structural element, while those of *Seven Haiku* are not part of a

[358] Cage, "Forerunners of Modern Music," in *Silence*, 64.
[359] Idem, "Experimental Music: Doctrine" in *The Score* and *I.M.A. Magazine* (June 1955); reprinted in *Silence*, 13.

phrase structure. In Haiku I, repeated rhythmic patterns, in conjunction with the stepwise melodic line, indicate the beginnings and endings of phrases. In this movement, rhythm is clearly part of the musical syntax. In Haikus II-V, there is no distinctive "melodic" line; however, there are some repeated pitches and rhythmic patterns, and these establish a motivic relationship between sound events. For instance, in Haiku IV, the first chord (grace notes G#-A and main notes G#-A-B flat-A) reappears at m. 8 (with the top note A changed to A flat), and the same pitch and rhythmic contents are repeated in mm. 3 and 4 (Figure 3.4). On the other hand, in *Seven Haiku*, there is no repeated rhythmic pattern (Figure 3.2). In these changes, a gradual shift in Cage's aesthetics from Blyth's idea to Suzuki's may be seen: *Haiku* displays the influence of Blyth's *Haiku* more with the presence of a phrase structure, while *Seven Haiku* presents the influence of Suzuki's lectures more with no phrase structure controlled by the composer.[360]

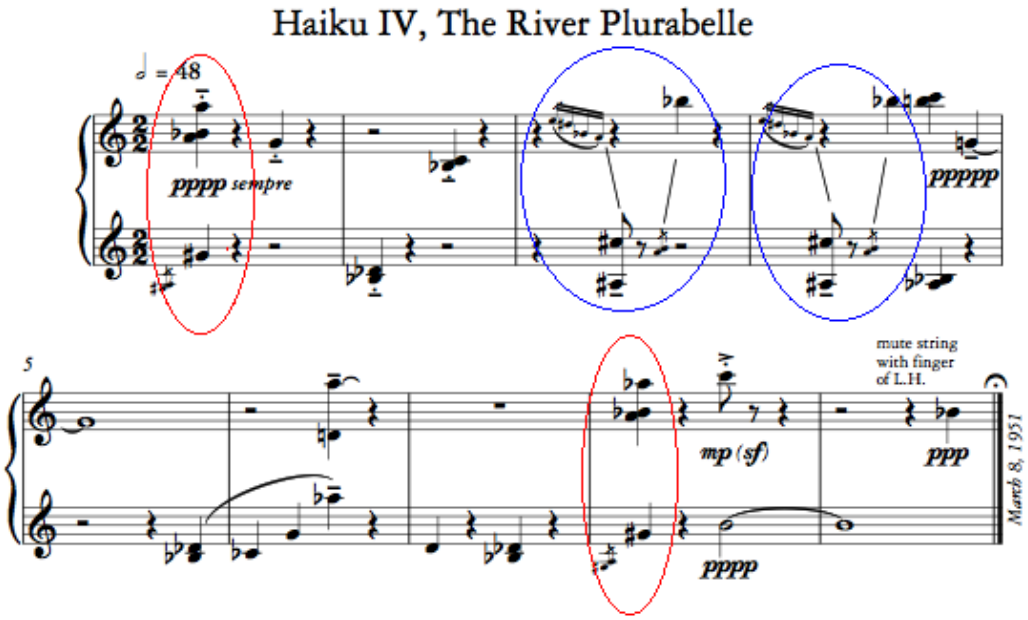

Figure 3.4. Repeated pitch and rhythmic contents in *Haiku* ©2012 by Henmar Press Inc. Reproduced by kind permission of Peters Edition Limited, London

[360] In "Defence of Satie" (1948) and "Forerunners of modern music" (1949), Cage still believes that structure should be controlled by mind.

3.4.2 Cage's Interest in Mathematical Time and Modern Technology

Even before composing the *haiku* works, Cage had expressed his idea of conceiving sound and silence equally in terms of *duration*. In his article "Defence of Satie (1948)," Cage states:

> If you consider that sound is characterized by its pitch, its loudness, its timbre, and its duration, and that silence, which is the opposite and, therefore, the necessary partner of sound, is characterized only by its duration, you will be drawn to the conclusion that of the four characteristics of the material of music, duration, that is, time length, is the most fundamental. Silence cannot be heard in terms of pitch or harmony: it is heard in terms of time length.[361]

Cage's early obsession with duration can be seen in both *Haiku* and *Seven Haiku*. Long notes sustained without a pedal as well as carefully specified timings of releasing keys and pedals heighten the performer's awareness of the duration of each note and rest. For instance, in Haiku III the first sound event consists of the combination of a quaver (the right hand), a minim, and a dotted crotchet (Figure 3.3). To realize these lengths accurately, the duration of silence (rests) needs to be carefully observed. In *Seven Haiku*, his obsession with duration is seen in his use of absolute time.

Cage's use of absolute time conflicts with *Kegon* philosophy as taught in Suzuki's lectures. In the first official lecture at Colombia, Suzuki states, "We must therefore realise that the world of the 'Lotus', or the Kegon which I am going to delineate is not concerned with this-worldly measurements."[362] As discussed in Chapter 1, Buddhism does not believe in the measurability of time.

Then, where does Cage's predilection for absolute time come from? Cage's interest in mathematical time can be traced back to the early years of his musical

[361] Cage, "Defence of Satie," 81.
[362] Suzuki, "Development," 174.

career. In the late thirties, he developed the idea of rhythmic structure. This was originally invented through collaboration with dancers and his effort to accommodate their choreographic needs, when he was an accompanist at the UCLA elementary school and at the Cornish School.[363] This rhythmic structure also became a device for composing percussion music and, later, he created a larger scheme, known as "macro-micro rhythmic structure" or "square-root form."[364] The ratio 5:7 in the first movement of *Seven Haiku* is another example of his intellectually conceived structure.[365]

His inclination towards precise and minute timing also derives from his interest in modern technologies, in particular, a film phonograph and tape music. In "The Future of Music: Credo" (1937) Cage states:

> With a film phonograph it is now possible to control the amplitude and frequency of any one of these sounds and to give to it rhythms within or beyond the reach of the imagination... The composer (organizer of sound) will be faced not only with the entire field of sound but also with the entire filed of time. The "frame" or fraction of a second, following established film technique, will probably be the basic unit in the measurement of time. No rhythm will be beyond the composer's reach.[366]

The ideas of time in "frame" and meticulously precise time—"fraction of a second"—are presented in the notation of *Seven Haiku*. Cage notates durations in space: a crotchet=1/2 inch. 17 "frames" (17 crotchets) becomes visible when this ½ length is measured and marked in notation (see Figure 3.2). Fractions, such as 2/3, are indicated above notes and rests, determining their durations. In the programme note to

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[363] Pritchett, *The Music of John Cage* 11-13; Nicholls, 20-21.
[364] Pritchett discusses how Cage's idea of micro-macrocosmic rhythmic structure is revealed in *First Construction in Metal* in detail. Nicholls explains, "[t]he essence of square-root form is that "a durational unit of x measures is repeated x times, giving an overall length for the work of x^2 measures." See Pritchett, 16; Nicholls, 23.
[365] See 3.2.1 for the discussion about Cage's possible manipulation of the results of *I Ching*.
[366] Idem, "The Future of Music: Credo (1937)," in *Silence*, 2-5. This is taken from his talk given at a meeting of Seattle Arts Society, organized by Bonnie Bird in 1937.

Music of Changes, he writes, "The notation expresses a relation between time and space such as exists in the case of sound recorded on magnetic tape."[367]

It may also be that modern lifestyle, as it is concerned with precise, mechanical timing, influenced Cage's objective orientation to time.[368] A 1934 article in *New York Times* reports that movie conductors often beat time "with a stop-watch...because it is essential that the symphonic accompaniment coincide perfectly with the action."[369] In this case, "mechanical media constricted the overall duration of any given musical performance—and composition—to a 'start and stop' time."

The notation of *Seven Haiku* indicates the idea of the "start and stop" time. In the traditional practice of Western musical notation, a double bar line at the end of a piece denotes the *end* of the music (and musical time). In *Seven Haiku*, no double bar line is marked throughout the work; even the last movement has no double bar line. This differs from the notation of *Haiku*: in the manuscripts of Haikus I and VI (Haiku VI is unpublished and unnumbered in the transcript), the end of each movement is marked by a double bar line. Cage's pedalling incorporates the "start and stop" time: in the third movement of *Seven Haiku*, the last chord played by the left hand is prolonged by a damper pedal, and the performer releases the pedal at the + sign indicated below the 16th measure. Thus, the pedalled sound does not *end* or die away but is *stopped* by the performer. The music *ends* when the duration of the movement has passed. Thus, the musical time starts and stops, rather than begins and ends.

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[367] Dunn, 8.
[368] Cf. see Bonus' quotations regarding metronomic rhythms in Chapter 1.
[369] Frank S. Nugent, "Sound and Fury in Remote Astoria," *New York Times,* Dec. 30, 1934, X5; ProQuest Historical Newspapers. Cited in Bonus, 522.

3.4.3 Temporality of the *Haiku* Works

The characteristics of the two *haiku* works present a challenge when one considers their temporality. The temporality of Haiku I can be perceived as linear because of its tonal reference, stepwise melodic motion, repeated rhythmic patterns, and a clear phrase structure. However, a lack of dynamic markings, no obvious harmonic changes, the obscured feeling of an end evoked by the succession of perfect fifths might be perceived as the attributes of nonlinearity. This movement is open to various interpretations, depending on how the performer interprets its temporality (see Chapter 6). Atonal Haikus II-V contain a number of leaps, and the syntactical relationship between musical events is unclear. Loud dynamics are unaccompanied by a *crescendo*, not establishing a climax. Because of a lack of a tonal centre and thematic development, these movements do not present a musical *progression* in the traditional, pre-twentieth-century sense. This might be perceived as an *illogical* sequence and nonlinearity. However, repeated rhythmic patterns (e.g., mm. 3-4 in Haiku III) and harmonies (e.g., the chord A#-B-D-A flat-A-C at mm. 5 and 7 in Haiku II; the chord F#-A-G-B flat-F# at mm.1 and 6 in Haiku III) as well as slur markings still indicate the beginnings and endings of phrases. From this point, it is possible to locate linearity in Haikus II-V. If the performer conceives the ending of a phrase as a particular *goal*, this can be shown in performance (see Chapter 6). The regularity created by the meter 2/2 also contributes to the *linear* progression of time.

Similarly, *Seven Haiku* displays the characteristics of both linearity and nonlinearity. The continuity of the work is the product of chance operations, and the sounds events do not establish a syntactical, consequential relationship. Cage's actions of throwing dices created nonlinear music. Kramer's definition of "moment" form best describes the temporality of the work (not each movement as they are too

short).[370] However, Cage's use of absolute time and fractions of time suggest an obsession with *spatialized,* linear time.

Conclusion

In *Haiku*, Blyth introduces the Japanese poetic form of haiku as an artistic form closely linked to Zen. The presentation of the form of haiku as illogical and non-consequential seems to have appealed to Cage. The composer's new idea of form in which each moment presents what happens reflects the aesthetic of haiku as expressed by Blyth.

Suzuki's diaries exclude the possibility of Cage's attendance at Suzuki's lectures in the late 40s. Suzuki's lecture at the Asian Institute in December 1950 could have been one of the first lectures that Cage attended. The transcript of "The Development of Buddhist Thought in China," Suzuki's first official lecture at Columbia on 1 March 1951, explains the concepts of "uminpededness" and "interpenetration" as *Kegon* ideas, correcting the misconception in Cage scholarship which regards these keywords as Zen philosophy. Patterson asserts that it is difficult to judge to what degree Suzuki influenced Cage's aesthetic development since Cage did not cite Suzuki's writing. However, a comparison between Cage's writing and Suzuki's transcript shows that in his music Cage aimed to incorporate *Kegon* teaching that sees the world as consisting of "indefinitely interlocking idea," in Cage's word, "incalculable infinity of cause and effects."[371]

Cage's learning from Blyth's book is manifested in both *Haiku* and *Seven Haiku*. The composer's particular interest in the structure of the Japanese haiku is reflected in the three-part phrase structure of *Haiku* as well as the visual presentation

[370] Cf. see Chapter 2 for Kramer's definition of "moment" form.
[371] Patterson, 54. See Chapter 2.

of *Seven Haiku,* adopting the three-part division with a 5-7-5-pattern. Suzuki's influence can be seen in Cage's use of chance operations and the idea of the music having no goal.

The differences within *Haiku* and between the two *haiku* works in terms of rhythm and a phrase structure show a shift in Cage's aesthetic from Blyth's idea to Suzuki's. Haiku I still conforms to the Western musical tradition of having a beginning and an end. The continuity of atonal Haikus II-V resembles those constructed by chance operations; however, some repetitions of rhythm and pitches are seen. These repeated patterns suggest that Cage did not abandon the idea of having phrases in the music. In *Seven Haiku*, neither melodic nor rhythmic pattern is repeated, and thus no clear phrase structure is established. Cage's elimination of a double bar line at the end of each movement consolidates the idea of the music having no end.

Both works present the characteristics of both linearity and nonlinearity. A clear phrase structure in *Haiku* can be considered the feature of linearity, whereas, a lack of dynamic markings in Haiku I can be understood as the attribute of nonlinearity. The succession of moments in *Seven Haiku* can be identified as the feature of nonlinear music, while Cage's use of absolute time can be seen as an obsession with linear, mathematical time.

Chapter 4: GEORGE CRUMB'S *MAKROKOSMOS I & II* AND THE "TIMELESSNESS" OF TIME

Introduction

This chapter examines George Crumb's idea of the "timelessness" of time. As discussed in Chapter 2, it has been identified as one of the most idiosyncratic characteristics of Crumb's music. The concept has been considered the antithesis of progressive time (e.g., time moving forward as explained by Shuffett)[372] and associated with musical stasis. This raises a question whether Crumb's "timelessness" is expressed only as "suspended" time or it can be expressed in other ways. In order to clarify Crumb's image and musical characterization of timelessness, his programme notes and interviews are consulted, and the contexts in which he uses the word "timeless" are identified (4.1).

An influence of Asian music in the instrumentation and exploitation of new timbre in Crumb's music has been previously discussed; how Asian culture influenced his understanding and construction of timelessness has not been fully investigated. This is examined in the second half of the chapter (4.2).

The last part of the chapter examines how the "timelessness" of time is communicated through both musical and extra-musical means in *Makrokosmos I & II* (1972-3). The composer's use of Asian materials in the work is also examined (4.3).

4.1 Crumb's Image and Musical Characterization of Timelessness

4.1.1 Non-progressive Time, the Ancient, a Distant Past, the Measureless, a Dream, Infinite Space, Circularity, and "Suspended" Music

Crumb writes in the programme note to *Makrokosmos I & II* that the "timelessness" of time was one of the recurrent "haunting images" that "influenced

[372] Shuffet, 17.

the evolution of" his musical language.[373] Indeed, he explored different aspects of time in his music from the early days of his career.

Crumb's interest in non-progressive time is expressed in *Echoes of Time and the River* for orchestra (1967),[374] a work consisting of four movements: I. Frozen Time; II. Remembrance of Time; III. Collapse of Time; IV. Last Echoes of Time. In the preface to the score, he writes:

> The unifying theme is "time." I wanted to express in musical terms the various qualities of metaphysical and psychological time. The river of time is an ancient metaphor which interprets time as a continuum without beginning or end.

Crumb's intention is to evoke contrasting images of *modern* and *ancient* time in the listener's mind. In the first movement, the lingering sound of triangles is evocative of an image of "Frozen Time." Repetitions of the interval of a second and a wind-like sound create echoes throughout the work. John Kennedy (2003) regards the use of repetition as a symbol of *circular* time:

> It is precisely this use of repetition which gives *Echoes of Time and the River* the sensibilities of its title. Recurrences are echoes, as Crumb folds musical material into itself and time feels more circular than linear. Echo becomes memory, and the experience of sonic memory is metaphor for sitting on the riverbank of the unending flow of river time.[375]

Circular notation is used in the movements II, III, and IV. This visually stimulates the listener's image of "time as a continuum without beginning or end."

Crumb's earliest use of the word "timeless" is found in *Vox Balaenae (Voice of the Whale)* for flute, cello, and piano (1971). The work was inspired by a recording

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[373] George Crumb, "Notes," in *Makrokosmos I* (NY, London, Frankfurt: C.F. Peters Corporation, 1972).
[374] This work has a subtitle, *Echoes II*, suggesting that its idea is generated from *Eleven Echoes of Autumn* for violin, flute, clarinet, and piano (1965).
[375] Kennedy, "Review."

of the singing of a humpback whale that Crumb heard in 1969.[376] The work consists of three movements:

> Vocalise (…for the beginning of time); widely fantastic; grotesque
> Variations on Sea-Time
> Sea theme; solemn, with calm majesty
> Archeozoic (Var. I); Timeless, inchoate
> Proterozoic (Var. II); Darkly mysterious
> Paleozoic (Var. III); Flowing
> Mesozoic (Var. IV); Exultantly
> Cenozoic (Var. V); Dramatic; with a sense of imminent density
> Sea-Nocturne (…for the end of time); serene, pure, transfigured

In the section marked "timeless," the cello imitates the voice of a whale. This can be heard as a symbolical representation of thousands years of the history of nature that predates human existence. This is evident in Crumb's description of the last section:

> The concluding *Sea-Nocturne* ("serene, pure, transfigured") is an elaboration of the *Sea-Theme*. The piece is couched in the "luminous" tonality of B major and there are shimmering sounds of antique cymbals (played alternately by the cellist and flutist). In composing the *Sea-Nocturne* I wanted to suggest "a larger rhythm of nature" and a sense of suspension in time. The concluding gesture of the work is a gradually dying series of repetitions of a 10-note figure. In concert performance, the last figure is to be played "in pantomime" (to suggest a *diminuendo* beyond the threshold of hearing!); for recorded performances, the figure is played as a "fade-out".[377]

Furthermore, Crumb states that the titles of the work are intended to evoke the *measureless*:

> St: The work [*Vox Balaenae*] has a mosaic and geological structure.
> Cr: I think much of my work has a mosaic structure. The geological periods there serve as titles for a set of variations in the middle of the work. I forget now just how that came, except that I wanted to suggest in the titles a kind of measureless time. I thought there was a little of this obsession with time in the music.[378]

Here, the "timeless" embodies images of a distant past and measureless time, thus the music is intended to evoke a sense of "suspension" in time.

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[376] George Crumb, "Programme Note," in *Vox Balaenae (Voice of the Whale)*.
[377] George Crumb, "Programme Note," in *George Crumb and the Alchemy of Sound*, 305-6.
[378] Strickland, 167.

The word "timeless" is also found in the performance direction of "Spiral Galaxy" from *Makrokosmos I* (1972-1973). Here, an image of the "timeless" is linked to the concept of unending, infinite space and is delineated by the exploitation of an unending sound, repetitions of motif, and soft dynamics (see 4.3).

The word "timeless" again appears in *Dream Sequence (Images II)* for violin, cello, piano, and percussion (and off-stage glass harmonica) (1976). Crumb's image of a dream is conveyed in the performance direction, "poised, timeless, breathing as an afternoon in late summer." A long sustained, drone-like sound from the opening and repetitions of a musical idea evokes an image of a hot, lazy, late summer afternoon in which time feels immobile. Circular notation is also employed in this work: piano and percussion have their own circle, while the string instruments are notated in the same circle. In this work, timeless is combined with an image of a dream, the *unreal*.

Crumb characterises circularity as a form of "timelessness" in the programme note to "Monochord" from *Zeitgeist* (Spirit of the time) for two pianos (1987):

> Monochord, which in score is notated in a symbolic circular manner, (which faithfully reflects the music's circularity) is based entirely on the first 15 overtones of a low B flat. A continuous droning sound (produced alternately by the two pianists) underlies the whole piece. This uncanny effect which is produced by a rapid oscillating movement of the fingertip in direct contact with the string, results in a veritable rainbow of partial tones. Monochord projects a sense of unbroken timelessness.[379]

As in *Dream Sequence*, circular notation and a droning sound in "Monochord" contribute to an image of "a sense of unbroken timelessness." The phrase "unbroken timelessness" also connotes that Crumb perceives the timeless as a continuous, unchanging mood. The work has three sections—Parts A, B, and C—in both Piano I and Piano II. In the score for Piano I, Part A is notated in a circle, divided into six

[379] Crumb's programme note to *Zeitgeist*.

measures, each numbered from A^1 to A^7 (A^1 and A^7 shares the same measure), and Parts B and C have one measure each. Crumb's directions read, "Pianist I plays the following sequence of bars: A^1, B; A^2, B; A^3, B etc., and concludes with A^7, B, and C (Monochord =16 bars altogether.)"[380] Similar to Part A of Piano I, Part B of Piano II consists of six measures and goes from B^1 to B^7 (B^1 and B^7 shares the same measure), and pianist II follows the same procedure, repeating A while going through the circle music of B. The pitch contents are based on the first 15 overtones of a low B flat. A low B flat is constantly heard as a tremolo on strings like drones, and the overtones played on keys are sequenced like a loop, e.g, B flat-C-B flat-F-B flat. This circling figure enhances the circularity of the music. This is a feature seen in "Spiral Galaxy" from *Makrokosmos I* (see 4.3). Crumb states that *Zeitgeist* shares an affinity with *Makrokosmos*.[381]

In Crumb's intellectual and musical understanding, something circular or cyclic is *static*, and is therefore expressed as "suspended" music. This is evident in the programme note to *Star-Child* for soprano, antiphonal children's voices, male speaking choir, bell rings, and large orchestra (1977):

> The germinal idea, "Music of the Spheres" (strings, pianissimo), moves throughout the work in a circular and therefore static manner, a kind of background music over which the human drama is enacted. This idea consists of a continuum of chords built upon the interval of a perfect fifth. Over these slow-moving strains of "suspended" music I have superimposed (in the manner of Charles Ives!) a sequence of boldly contrasting musics.[382]

"Music of the Spheres" refers to the medieval concept of music played in the cosmos and is scored in a circular manner. Same as *Echoes of Time and the River*, cyclic time in *Star-Child* is combined with an image of the ancient. Circular notation, a perfect

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[380] "Pianist II plays the following sequence of bars: A, B^1; A, B^2; A, B^3 etc., and concludes with A, B^7, and C."
[381] Strickland, 174.
[382] George Crumb, "Notes," in *Star-Child*.

fifth, and "suspended" music also feature in "Spiral Galaxy" and "Agnus Dei" from *Makrokosmos I & II* (see 4.3).

Crumb states in an interview with Robert Shuffet (1979) that "suspended" time is the antithesis of "progressive" time:

> In my music it [suspended time] occurs frequently. It includes the elimination of metrics and tactus, but it's more complicated than that. It has to do with erasing the sense of strong progression that exists in many traditional types of music. An example of this suspended time…is the ending of Music of a Starry Night (the final piece of Makrokosmos III (1974).[383]

In the section titled "Song of Reconciliation" (within "Music of a Starry Night" from *Makrokosmos III*), marked "Joyous; ecstatic; with a sense of cosmic time," Crumb repeats a motif B flat-D flat- A flat- D flat- E flat- D flat- G flat- D flat- A flat- D flat. This creates a feeling of the music being "suspended" instead of "progressing."[384] David Cope (1986) describes his temporal perception of the final phrases of the work as "time perceptibly slows and seems to stand still."[385]

In summary, Crumb's image of timelessness is not limited to the concept of non-progressive time, but extends to images of the ancient, a distant past, measureless time, a dream, and infinite space. These images are often expressed by a combination of circular notation and cyclic form. This reflects his view of circularity as a form of "timelessness." His image of the timeless is musically conceptualized as "suspended" music in which the sense of strong progression is obscured. For him, timelessness is the antithesis of linear, human time.

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[383] Shuffett, "The Music, 1971-1975, of George Crumb: A Style Analysis," 22-23. The interview was held on 7 April 1977.
[384] As experienced by the author at a concert on 31 May 2014.
[385] David Cope, "Biography," in *George Crumb: Profile of a Composer*, edited and compiled by Don Gillespie (New York, London, and Frankfurt: C.F. Peters Corporation, 1986), 14.

4.1.2 Circular Notation and Timelessness

Crumb often uses circular notation when the music presents circularity. He (1994) discusses this relationship:

> *Your notations are often very visually striking…*
> Notation is the composer's choice. But you're referring to my 'symbolic notations'—the circles etc. It's just a way of making graphic the fact that the music is circular in sound. It seemed the right way to notate it.[386]

Crumb first used circular notation in *Night Music I* (1963), the work inspired by Federico García Lorca's poem "The Moon is Rising." Originally, his purpose of using circular notation was to represent circular objects in the sky.[387] Later, the circular notation became a tool to avoid vertical alignment among instruments (e.g., in *Eleven Echoes of Autumn*), and then became the visual representation of a circular musical structure, as seen in "The Magic Circle of Infinity" (see 4.3).[388] In *Makrokosmos* and *Star-Child*, the circular notation also symbolizes "the music of the spheres."[389]

However, circular notation does not always present "circular" music. For instance, although "Twin Suns (Doppelgänger aus der Ewigkeit)" from *Makrokosmos II* is notated with two circles, representing two Suns, its musical content exhibits a linear progression with tonally derived pitch construction. In the circle A, groups of repeated dyads, performed percussively, clearly display a descending melodic contour. In the circle B, the tonal centre is audible: the leading note C# resolve to the tonic D in the melody titled "Hymn for the Advent of the Star-Child." Crumb

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[386] Smith and Smith, 102; see a similar discussion in an interview with Strickland, 170.
[387] Victoria Adamenko, "Appendix 1 An Interview with George Crumb (Transcript of a conversation with George Crumb, December 9, 1997, Rutgers University)," in *Neo-Mythologism in Music*, 265.
[388] Ibid., 265-8.
[389] Ibid., 265-267. Crumb became familiar and was fascinated with this medieval concept when he heard Paul Hindemith's symphony *Die Harmonie der Welt*.

acknowledges, "*Two Suns* [Twin Suns] sure was the representation of suns, but the music wasn't circular."[390]

4.2 Source of Crumb's "Timelessness": Western and Asian Influences

How did Crumb become interested in the idea of "timelessness"? In his interviews, Crumb stated that both Western and Asian music influenced his understanding of timelessness.

Crumb (1994) refers to earlier examples of "suspended" time found in the music of Claude Debussy and Igor Stravinsky:

> *You've been described as essentially a 'colourist', and I wondered if your interest in timbre and colour has come from Debussy and that era?*
> Yes, I think that's true. It comes from Debussy, whose *Prelude to the Afternoon of a Faun* is quite as revolutionary as *The Rite of Spring,* not only in colour but also in time-suspension. It's as revolutionary but probably not nearly as 'astonishing' a work for the audience.[391]

Crumb mentioned the same work of Debussy as an inspirational work with "suspended" time in an interview with Robert Shuffet (1979),[392] and this was later cited by Nell Wright Matthews (1981).[393]

In more recent interviews, Crumb referred to the influence of Asian music. He acknowledges that his use of drones is influenced by Indian music in an interview with Strickland (1991):

> I think my drone is an outgrowth of the concept of reverberation, a single tone in the piano... One low note on the piano rings out for quite a while. This fascination with long notes may have led me to the idea of using drones. There may be some Eastern influence there—Indian music. At Penn we used to have some Indian musicians teaching sitar and tabla. Their room was across the hall from mine. I'd be teaching students and these sound would be wafting over. I think they really entered my head.[394]

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[390] Ibid., 268.
[391] Smith and Smith, 100.
[392] Shuffet, 498-99.
[393] Matthew, 34.
[394] Strickland, 164. Crumb started teaching at the University of Pennsylvania in 1965.

Here, Crumb seems to hold some reservation; however, in an interview with Paul Steenhuisen (2009), Crumb clearly acknowledges that Asian music has served as one of the sources of "suspended" music:

> P.S. How has music from other cultures influenced your work?
> G.C. Certainly in the borrowing of instruments. …That's one level. Another way is maybe more aesthetic. The suspension of time that came into my music, probably its purest form is in certain Asian musics, where there is almost no sense of harmonic movement –it's so suspended. [395]

Crumb's interpretation of Asian music as "suspended" or static is reminiscent of how Debussy depicted gamelan music with a slow harmonic movement in "Pagodes." Crumb acknowledges the influence of Debussy in an interview with Bálint András Varga (2011):

> In regard to the influence of Debussy…on my music, I could itemize the following special features…:
> …3. Debussy's use of Eastern materials (Pagodes, from *Estampes*). I would similarly borrow from the Orient: the use of the sitar and tabla in my "Lux Aeterna." And Tibetan prayer stones in "Night of the Four Moons." Also my melodic materials sometimes suggest the Orient (certain scale types, certain kinds of timbral and ornamental articulations).[396]

In "Pagodes" Debussy exploits a pentatonic scale and cyclic repetitions of a motif. These are used by Crumb in "Morning Music" in *Makrokosmos II* (see 4.3.3).

Another influence comes from Crumb's contemporary composer John Cage:

> I tend to dabble with instruments and to borrow instruments from non-Western cultures, in the tradition of people like John Cage. I've continued that, and maybe gone beyond Cage in a way, at least with regard to African instruments.[397]

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[395] Steenhuisen, 109. Crumb often uses Asian instruments in his works, e.g., Japanese temple bells in *Ancient Voices of Children* for mezzo-soprano, boy soprano, oboe, mandolin, harp, amplified piano (and toy piano), and percussion (three players) (1970).
[396] Varga, 49-53. The sitar and tabla used in his *Lux Aeterna* (1971) are the Indian instruments that Crumb frequently heard at the University of Pennsylvania.[396]
[397] Steenhuisen, 109.

Both Cage and Crumb use Japanese temple bells, for instance, in his *First Construction (in Metal)* (1939) and *Ancient Voices of Children* (1970), respectively. Cage's prepared piano may have inspired Crumb's exploration of timbral possibilities of the instrument. For instance, Crumb creates *koto*-like timbre with pieces of paper placed on strings in "Morning Music."[398] Andrew Stiller finds similarities between Cage's piano and percussion music from the 40s and Crumb's music: "A piece like *Amores* (1943) comes very close to Crumb, not only in its timbres but in its dynamics, form, and mood as well."[399]

Asian thoughts and philosophies also influenced Crumb's aesthetics. This can be seen in the circular notation of *Ancient Voices of Children* (in which Japanese temple bells are used):

> VA: Is the circular notation [of *Ancient Voices of Children*] connected in your mind with the ideas of reincarnation, changes of seasons, and other symbolic meanings that different mythological traditions attach to the figure of a circle?
> GC: It is connected to all of those things.[400]

The circular notation appears in the section marked "Dance of the Sacred-Life Cycle." As discussed in Chapter 1, some Asian religions, for instance, Brahmanism, reincarnation is believed to happen to the universe and all beings, including humans. Crumb was indeed studying Indian mythology before composing the work:

> GC: In *Ancient Voices of Children* I recorded an Indian Ghost Dance, which was an ancient mythological dance. I used it just as a title, referring to a mysterious character, after reading about it in one of the books on Indian mythology.[401]

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[398] Crumb acknowledges that he was greatly inspired by Cage's experimental attitude. See Smith and Smith, 98. Crumb attended at the University of Colorado, Boulder, a performance of *Cartridge Music* (1960) given by Cage and David Tudor on 7 February 1962 and Tudor's performance of *Variation II* (1961) the following day. A John Cage Compendium, < http://cagecomp.home.xs4all.nl/>, accessed on 20 July 2014. Incidentally, at the University of Colorado, David Tudor gave the premier of *Music of Changes* Book I on 5 July 1951.
[399] Stiller, 39.
[400] Adamenko, 268.
[401] Ibid., 269.

The piece referred here is "Ghost Dance," one of the two instrumental interludes. In the other interlude "Dances of the Ancient Earth," Crumb employs a pentatonic scale. This title reminds us of Gustav Mahler's *Das Lied von der Erde* (1908-9), composed for Chinese poems.

Crumb's unpublished work titled *Mandala* shows the most direct influence of Asian philosophy on his music.[402] A mandala, circle in Sanskrit, is a spiritual symbol representing the Universe in Hinduism and Buddhism.

The evidence suggests that Crumb had both musical and extra-musical inspirations from Western as well as Asian culture. Unlike Cage who frequently referred to his Asian studies, in Crumb's programme notes, reference to Asian sources is not given, while Western associations, such as "the music of the spheres," are made clear.[403] The different attitudes between these two composers seem to derive from their educational backgrounds. As discussed in Chapters 1 and 3, Cage did not have any formal Western music education at any (post-high school) academic institutions and universities, except his studying with Arnold Schoenberg and Adolph Weiss.[404] On the other hand, Crumb studied music at degree level, and obtained his D.M.A. in 1959.[405] It appears that for Cage, European musical tradition was old and something to reject, while for Crumb it was something to cherish:

> …in a real sense, virtually all music history and literature is at our fingertips through both live performances and excellent recordings, whereas earlier composers knew the musics of only one or two generations before their own time. The consequences of this enlarged awareness of our own heritage are readily evident in many of our recent composers. …I have observed, too, that the people of the many countries that I have visited are showing an ever increasing interest in the classical and traditional music of their own cultures.

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[402] Ibid., 269.
[403] For instance, this is mentioned in the programme note to *Star Child*.
[404] Hicks, 127-30.
[405] "George Crumb," in *Naxos* <http://www.naxos.com/person/George_Crumb_16527/16527.htm>, accessed on 19 August 2015.

> Perhaps we have come to think of ourselves as philosophically contemporaneous with all earlier cultures.[406]

4.3 The Constructions of "Timelessness" and the Use of Asian Materials in *Makrokosmos I & II*

Crumb does not specify which pieces (movements) communicate the concept of timelessness, and this has been viewed differently by scholars and interpreters. Matthews (1981) regards all the "symbol" pieces in the two volumes, "Crucifixus," "Spiral Galaxy," "Twin Suns," and "Agnus Dei," as the "timeless" pieces.[407] Adamenko (2007) considers that "The Magic Circle of Infinity," "Spiral Galaxy," and "Agnus Dei" convey the concept because of their circular notation and programmatic titles.[408] Both Robert Shannon and Jeffery Jacob, the two pianists with whom I have had personal communications, find timelessness in "Spiral Galaxy." Jacob also identifies it in "Agnus Dei" and "The Mystic Chord" (see Chapter 2).[409]

4.3.1 Extra-musical Analysis

Crumb's own words in titles and performance directions are key to the understanding of how the "timelessness" of time is expressed in his music:

> Extramusical directives are…a means of getting as close as we can to a certain kind of music that composers are writing now, and for which some of the older terms wouldn't suffice. Such practices as only giving a tempo, or such a words as *dolce* would often be of little help. A somewhat poetic adjective will often give the performer an indication as to how to approach the music psychologically—exactly as Debussy did in some of the preludes.[410]

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[406] George Crumb, "Music: Does it have a future?" *The Kenyon Review,* new series, vol.2, no, 3 (summer, 1980):115-6.
[407] Matthews, 30-34
[408] Adamenko, 220.
[409] In a personal email from Robert Shannon and Jeffery Jacob.
[410] Shuffett, "The Music, 1971-1975, of George Crumb: A Style Analysis," 21. Interview with Crumb on 29 April 1977.

The programme note to *Makrokosmos I* reveals how Crumb was thinking while composing the work:

> I was aware of certain recurrent haunting images. At times quite vivid, at time vague and almost subliminal, these images seemed to coalesce around the following several ideas (given in no logical sequence, since there is none): the "magical properties" of music; the problem of the origin of evil; the "timelessness" of time; a sense of the profound ironies of life (so beautifully expressed in the music of Mozart and Mahler); the haunting words of Pascal: "*Le silence eternal des espaces infinis m'effraie"* ("The eternal silence of infinite space terrifies me"); and these few lines of Rilke: "*Und in den Nächten fällt die schwere Erde aus allen Sternen in die Einsamkeit. Wir alle fallen. Und doch is Einer, welher dieses Fallen unendlich sanft in seinen Händen hält* ("And in the nights the heavy earth is falling from all the stars down into loneliness. We are all falling. And yet there is One who holds this falling endlessly gently in his hands").[411]

Crumb's understanding of the duality of time and space becomes explicit with Pascal's "*Le silence eternal des espaces infinis m'effraie"* ("The eternal silence of infinite space terrifies me"). The two words, eternal and infinite, are antithetical to the concept of human, ordinary time. This underlies the duality between time and timelessness explored in the work.

Crumb's sketches reveal how long it took him to decide on the title of the work. A sketch from summer 1971 shows that Crumb returned to a draft of *Fantasy-Piece* from 1961 with a plan to expand it into a three-volume work. This is the origin of *Makrokosmos I & II*. Another sketch (undated, but likely to have been produced after the one discussed above) is given a new title *The Mysterious Universe* with a subtitle "Fantasy-Piece." In this sketch, "Makrokosmos I" and "Makrokosmos II" appear as titles of movements, accompanied by the quotations of Pascal ("Makrokosmos I") and Rilke ("Makrokosmos II"). In another sketch from December 1971, the work has the title *Makrokosmos: Twelve Fantasy-Pieces*, and is followed by an epilogue "Musica Mundana." Crumb kept the subtitle *Twelve Fantasy-Pieces* as

[411] George Crumb, "Notes," in *Makrokosmos, Volume I* (NY, London, Frankfurt: C.F. Peters Corporation, 1972).

the final title, probably because of the virtuosic, free, improvisatory style that the genre fantasy suggests.

Each piece of *Makrokosmos I & II*, a set of 24 "fantasy-pieces," is given an evocative title and detailed performance directions (Tables 4.1 and 4.2).

Title	Performance directions
1. Primeval Sounds (Genesis I)	Darkly mysterious
2. Proteus	Very fast, whimsical, volatile [semiquaver=152]
3. Pastorale (from the Kingdom of Atlantis, ca. 10,000 B.C.)	Moderately, with incisive rhythm [quaver=72]
4. Crucifixus [Symbol]	A: Darkly mysterious, B: come sopra, C: Adagio molto [semiquaver=40]; serene, transcendental
5. The Phantom Gondolier	Eerily, with a sense of malignant evil [quaver=60]
6. Night-Spell I	Poised, expectantly [quaver=50]
7. Music of Shadows (for Aeolian Harp)	Gracefully, with elastic rhythm [quaver=ca. 54]
8. The Magic Circle of Infinity (Moto Perpetuo) [Symbol]	A: Luminous [semiquaver=156], B: Joyously, like a cosmic clock-work; with mechanically precise rhythm [semiquaver=226]
9. The Abyss of Time	Dark, with a sense of profound mystery
10. Spring-Fire	Prestissimo; breathlessly, with élan
11. Dream Images (Love-Death Music)	Musingly, like the gentle caress of a faintly remembered music [crotchet=60, but flexible and expressive]
12. Spiral Galaxy [Symbol]	Vast, lonely, timeless [quaver=20=3 sec.]

Table 4.1. Titles and performance directions in *Makrokosmos I*

Title	Performance directions
1. Morning Music (Genesis II)	Exuberantly, with primitive energy [quaver=66]
2. The Mystic Chord	Adagio molto [crotchet=34]; serene, desireless, like a Nirvana-trance
3. Rain-Death Variations	Crystalline, with elegance [Tempo metronomico, semi-quaver=128]
4. Twin Suns (Doppelgänger aus der Ewigkeit) [Symbol]	A: Majestic [quaver=64], B: Solemn [quaver=88]
5. Ghost-Nocturne: for the Druids of Stonehenge (Night-Spell II)	Dark, fantasmic, subliminal [minim=40]
6. Gargoyles	Marcia grottesca: savagely, with irony [quaver=144]
7. Tora! Tora! Tora! (Cadenza Apocalittica)	Dramatic, with great intensity; violent, relentless [dotted semiquaver=108,

	semiquaver=semiquaver sempre]
8. A Prophecy of Nostradamus [Symbol]	A: Stark, powerful [crotchet=100]; molto pesante!, B: crotchet=100, C: Fatefully, D: Like and echo, E: [crotchet=100], F: [crotchet=100]
9. Cosmic Wind	Ghostly, shadowy, tremulous [semiquaver=88]
10. Voices from "Corona Borealis"	Passacaglia: very slow, with majestic calm [dotted minim=40]
11. Litany of the Galactic Bells	Jubilant; metallic, incisive, echoing [crotchet=52]
12. Agnus Dei [Symbol]	A: Very slow, like chanting [quaver=40], B: Come sopra [quaver=40], C: Very slow; tender, wistful [semi-quaver=40], D: "Prayer-wheel" –Very slow [demisemiquaver=76]; like a vision; as if suspended in endless time

Table 4.2. Titles and performance directions in *Makrokosmos II*

Crumb uses words to describe the character of the music. For instance, "the problem of the origin of evil," one of the recurrent images discussed in the programme note, is communicated with the words "dark," "darkly," "ghost," "ghostly," and "evil."[412] The programmatic titles, "Spiral Galaxy," "Galactic Bell," and "Corona Borealis," evoke a cosmic image and have a psychological impact on the performer and the listener. Crumb is more explicit in his verbal directions than Debussy was in his *Préludes*. In this work, the titles are printed in parenthesis at the end of a piece, indicating Debussy's wish to avoid influencing the performer's interpretation too greatly.[413]

[412] "Primeval Sounds," "Crucifixus," "The Phantom Gondolier," "The Abyss of Time," "Ghost-Nocturne: for the Druids of Stonehenge (Night-Spell II)," and "Cosmic Wind" contain these words.

[413] The influence of Debussy's *Préludes* is apparent not only in Crumb's use of evocative titles and poetic adjectives, but also in the twelve-piece, two-volume structure of the work. In addition, "The Magic Circle of Infinity (Moto Perpetuo)," the eighth piece of the first volume, is allocated to the sign of Leo with the initial C.D. (Claude Debussy).

As Table 4.3 shows, the pieces dealing with time can be divided into sub categories with different *characters* of time. "Primeval Sounds (Genesis I)," "Morning Music (Genesis II)" as well as "Tora! Tora! Tora! (Cadenza Apocalittica)" deal with the concept of time derived from the biblical stories of the creation and the end of world. In these works, time is presented as an entity which has a beginning and an end. Time is also dualistically presented by the contrast between morning and night[414] as well as past and future.[415] In "Spiral Galaxy," "The Magic Circle of Infinity (Moto Perpetuo)," and "Agnus Dei," Crumb presents the idea of "timelessness": "Spiral Galaxy" is marked "Vast, lonely, *timeless*," and the "Player-wheel," section D of "Agnus Dei" is marked "Very slow; like a vision; as if *suspended in endless time*." "The Magic Circle of *Infinity* (Moto Perpetuo)" expresses *infinite* "cosmic clock-work."[416] It seems that "The Abyss of Time" does not convey the properties of time, but presents the composer's subjective view of time, an image of a dark, mysterious atmosphere of time.

Characteristics of time	Titles
Biblical time	Primeval Sounds (Genesis I)
	Morning Music (Genesis II)
	Tora! Tora! Tora! (Cadenza Apocalittica)
Time of a day	Morning Music
	Night Spell I
	Ghost-Nocturne: for Druids of Stonehenge (Night-Spell II)
Past/Future	Pastoral from the Kingdom of Atlantis, ca. 10,000 B.C.
	Dream Images (Love-Death Music)
	Prophecy of Nostradamus
Timeless/endless time	The Magic Circle of Infinity
	Spiral Galaxy

[414] These are presented by "Morning Music" and two "Night-Spell."
[415] "Pastoral from the Kingdom of Atlantis, ca. 10,000 B.C." and "Dream Images (Love-Death Music)" deal with the past, whereas, "A Prophecy of Nostradamus" is about predicting the future. Even though the name Nostradums symbolizes the act of prediction, the quotation of *Dies Irae* leaves an impression of the past at the same time.
[416] Emphasis mine.

	Agnus Dei
Mood of time	The Abyss of Time

Table 4.3. Categories of time found in *Makrokosmos I & II*

Nirvana and *tora tora tora* in "The Mystic Chord" and "Tora! Tora! Tora! (Cadenza Apocalittica)," respectively, suggest a link to Asia. *Nirvana* describes Buddha's state of mind that is free from all sufferings and earthly desires. *Jisetsu-kyō* (Udāna) states, "In *nirvana*, there is no earth, no water, no fire, and no wind. There is no spatial infinity…and there is no progression…"[417] From the title of the piece, it is not clear if the word *nirvana* represents Crumb's image of timelessness (see 4.3.2.). *Tora tora tora* was the command used by the Japanese Navy to initiate a surprise military attack on Pearl Harbour in 1941. The phrase accompanies the subtitle "Cadenza Apocalittica," signifying the end of the world. In contrast to the serenity of *nirvana*, Asia in this context is presented with a negative, evil image.

There are no words of Asian origin in the three "timeless"; their symbolic notations suggest the Asian concept of time as cyclic in nature.[418] "The Magic Circle of Infinity," "Spiral Galaxy", and "Agnus Dei" are notated in the shape of a circle, a spiral, and a peace sign, respectively.[419]

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[417] Hajime Nakamura and Kazuyoshi Kino, eds., "*Hannya Shingyō*" in *Hannya Shingyo, Kongō Hannya-kyō* (Tokyo: Iwanami Bunko, 1977), 31.

[418] As discussed earlier, in an interview with Adamenko, Crumb states that the circular notation in *Ancient Voices of Children* (1970) is connected to the idea of seasons and reincarnation, and that he composed *Mandara*, an unpublished work which was notated in a circular manner.

[419] Crumb divides twelve pieces into three parts, and the fourth piece of each part is labelled as a "Symbol" piece, notated in a graphic score. In volume I, the forth piece "Crucifixus" is notated in the shape of a cross, the eighth piece "The Magic Circle of Infinity" in a circle, and the twelfth piece "Spiral Galaxy" in spiral. In volume II, the fourth piece "Twin Suns" is written in the shape of two circles, the eighth piece "A Prophecy of Nostradamus" in an eye, and the twelfth piece "Agnus Dei" in a peace sign.

4.3.2 Musical Analysis: Three Means of Expressing Timelessness

In *Makrokosmos I & II*, "timelessness" is constructed in three different manners. Firstly, time is presented as cyclic. This can be seen in "Spiral Galaxy," "Agnus Dei," and "The Magic Circle of Infinity." Secondly, time as an irregular continuum that does not flow from past, to present, to future, is presented in "Dream Images (Love-Death Music)." Thirdly, in "The Mystic Chord," timelessness is expressed as a contrast between change and stasis.

4.3.2.1 Cyclic Time as "Timelessness"

4.3.2.1.1 "Spiral Galaxy"

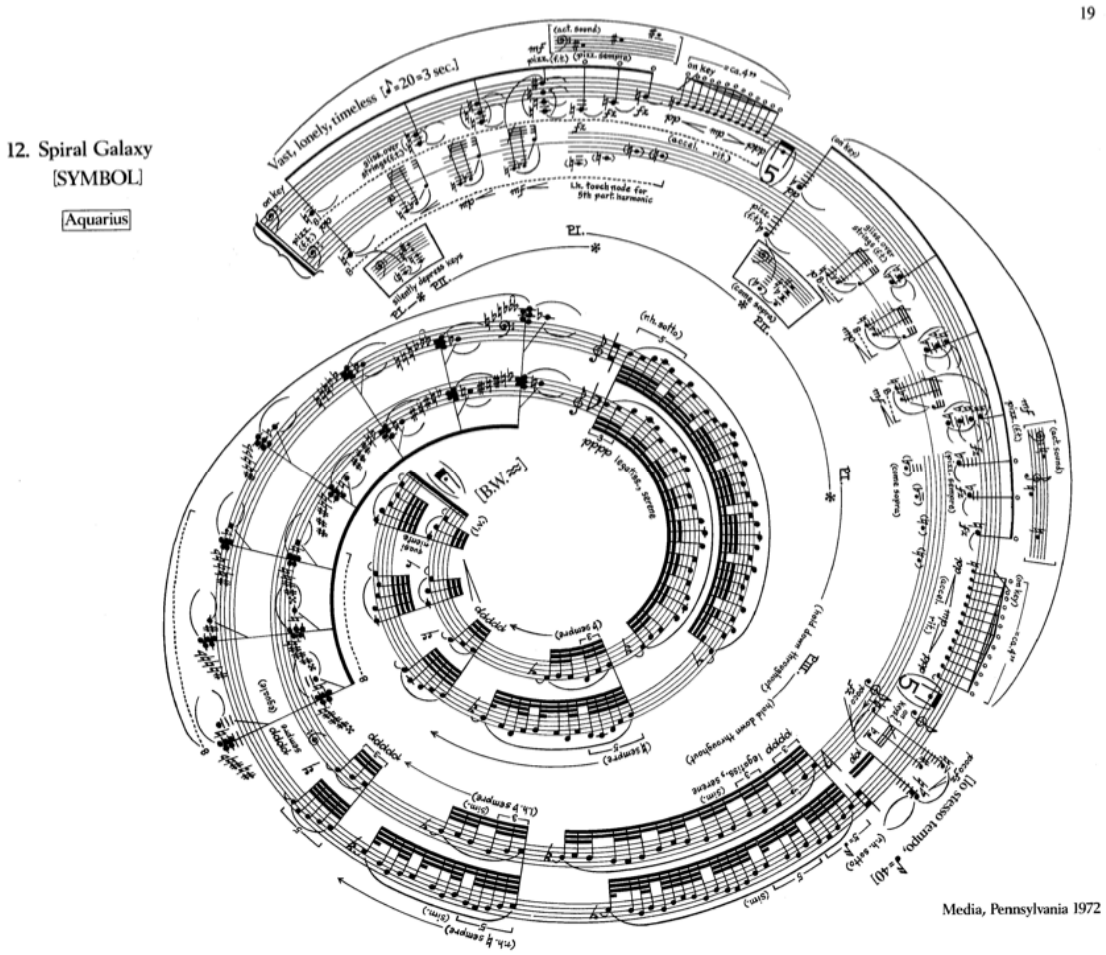

Figure 4.1. "Spiral Galaxy" from *Makrokosmos I* ©1973 by C. F. Peters Corporation. Reproduced by kind permission of Peters Edition Limited, London

The word “timeless” features in the performance direction of “Spiral Glaxy”: “Vast, lonely, timeless.” “Timelessness” in this piece is conveyed through the minimalistic use of musical materials, cyclic repetition of musical ideas, a pentatonic scale, harmonic stasis created by a circle of fifths, and unchanging tempi and dynamic levels. Thus there are no obvious contrasts or musical momentum towards a goal. The exploitation of sound decay makes the listener aware of spaciousness (timelessness).

The piece is scored in the form of a spiral and consists of two parts. Part A explores piano sounds produced by inside-the-piano techniques, while Part B is entirely played on the piano keys. In both sections, musical materials are used minimalistically. There are only seven musical ideas in total, four in A and three in B, and they are cyclically repeated with transpositions.

Part A consists of two sections divided by an approximately five-second rest. Both sections contain: sounds produced by plucking of strings and glissandi on strings; harmonics; repeated notes played with muted strings; and a five-second rest. The pitches used are: A, E, B, F# in the first section (a), and E flat, B flat, F, and C in the second section (a´). The intervallic relationship between these notes is based on a circle of fifths.

Part B starts with grace notes E (the right-hand)-D (played by the left- hand)-D# (r.h.)-B flat (l.h.) and a semi-quaver dyad A-C flat (r.h.). This is followed by repeated polyrhythmic figures, marked “legatissimo, serene”: the right hand plays demisemiquaver quintuplets, circling on a pentatonic subset A-B-D-E, [0, 2, 5, 7], while the left hand plays semiquaver triplets circling on A flat-B flat-D flat-E flat, another pentatonic subset [0, 2, 5, 7]. These figures (b) are repeated with a short rest in-between: the number of repetitions of the right-hand figure decreases from 5 times, then 3 times, and then to once, while the left-hand repeats 6 times, twice, and once.

This is followed by 7 quavers consisting of chromatic aggregates (c) follow. Each chord has 6 notes, and the intervallic relationship between these chords is again based on a circle of fifths (Figure 4.2). After this, the circling figures return (b′). This time, the right hand plays quintuplets formed by D-E-G-A, a white-key pentatonic subset [0, 2, 5, 7], above left-hand triplets of a black-key pentatonic subset [0, 2, 5, 7], consisting of D flat-E flat-G flat-A flat. Also, these figures are cyclically repeated with a short rest in-between, and the number of repetitions also decreases: the right-hand quintuplets are firstly repeated 7 times, then 3 times, and then once; this last one is followed by a semi-quaver rest. Then, another quintuplet with a quaver rest, and one last quintuplet, marked "quasi niente," is played. This creates an impression that the music is fading away and as if it never ends but continues to sound in distance.

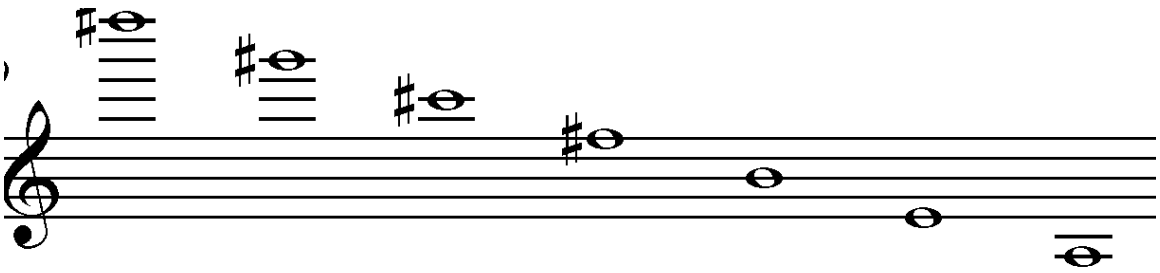

Figure 4.2. The bottom notes of the right-hand chromatic aggregates showing its intervallic relationship based on a circle of fifths

The form of the piece can be summarized as: A (a + a′) + B (b + c + b′). Even though both sections are constructed by the recurrence of motifs, Part B presents its cyclic nature more explicitly because of the repetitions of the circling figure b and its recurrence as b′.

No contrasting moods are found; the atmosphere remains the same throughout the piece. Both sections are played in the same tempo, a quaver=20=3 seconds, and in a soft dynamic. A damper pedal or sostenuto pedal is held throughout the piece, thus creating a seamless, unbroken sonority. This makes the listener aware of the

spaciousness that the music embodies but is less explicit in notation. For instance, during the five-second rests in the section A, the listener keeps hearing the reverberated sound of previous musical ideas. Similarly, the last note of the piece is prolonged with a damper pedal. This creates an aural illusion of the music continuing to be heard whilst disappearing into silence. The pianist Robert Shannon believes that this effect creates endlessness: "The dying-away endings certainly create the effect of not stopping, but just getting farther away."[420]

Thus "Spiral Galaxy" expresses the "timeless" as static, cyclic, and spacious. The absence of obvious contrasts and the hierarchical relationship between sections as well as the lack of dramatic changes of both tempi and dynamics contribute to the presentation of timelessness as a single, non-progressive mood.

4.3.2.1.2 "Agnus Dei"

"Agnus Dei" has musical features similar to "Spiral Galaxy." The minimalistic use and cyclic repetition of musical materials, a slow harmonic rhythm, a soft dynamic, and the constant use of a damper pedal all contribute to eliminating a sense of progression. In "Agnus Dei," cyclic notation is combined with linear notation, and the cyclic nature of the music is most apparent in Part D, which is marked "like a vision; as if suspended endless time."

In this movement, whole-tone scales and the interval of a perfect fifth are exploited. This movement consists of four parts; the symmetrical design of the peace sign is musically reflected in Parts A and B, which share the same materials based on the interval of a perfect fifth, as well as in Part D. Part D consists of 4 repetitions of 4

[420] Robert Shannon, personal communication with the author via email on 7 March 2014.

elements: figure (a) two chords containing a perfect fifth and an octave; figure (b) circling figures based on a whole-tone scale; figure (c), 7 sets of two juxtaposed tritones [0, 2, 6, 8] (a whole-tone subset); and figure (d) a lyric "Dona nobis pacem" whispered by the pianist. A whole-tone scale is also used in Part C.[421] The limited use of musical materials contributes to a slow harmonic movement.

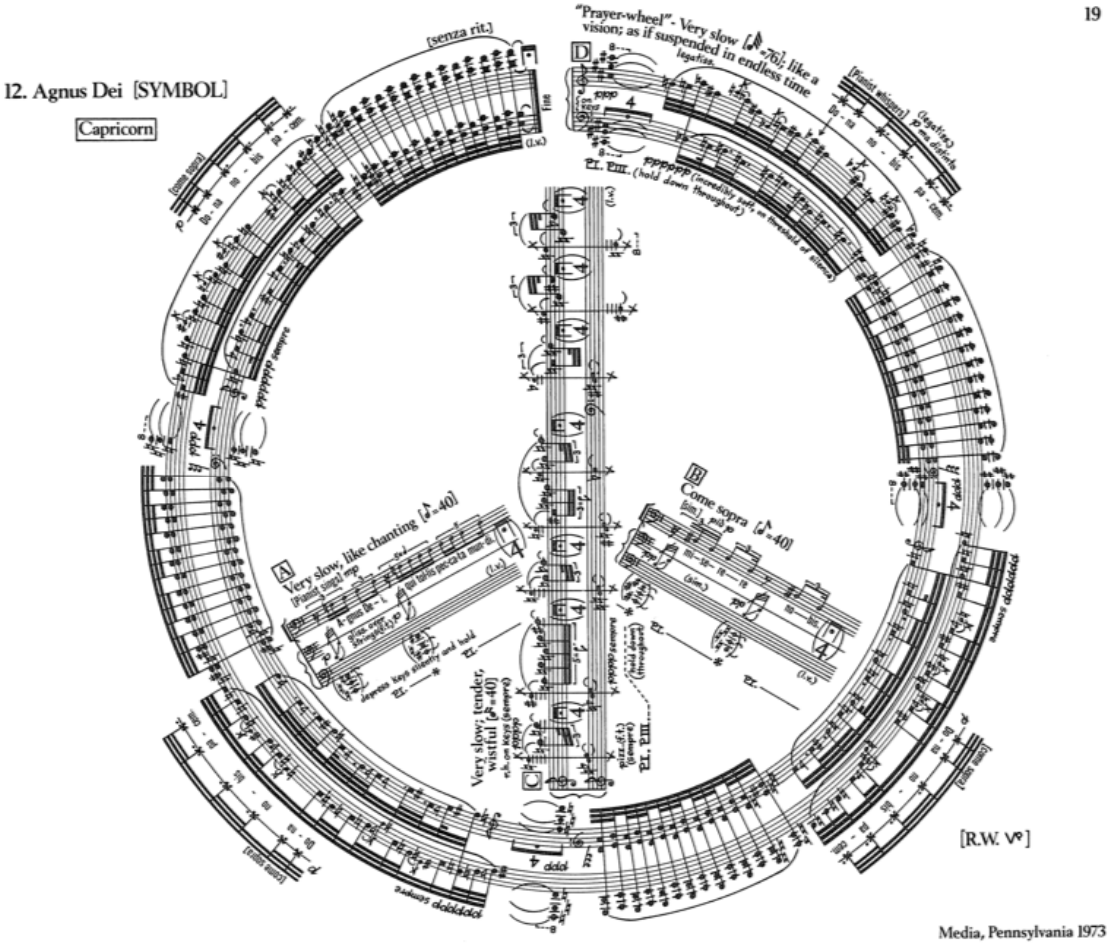

Figure 4.3. "Agnus Dei" from *Makrokosmos II* ©1974 by C. F. Peters Corporation. Reproduced by kind permission of Peters Edition Limited, London

[421] The material of Part C first appears in Part C of "Crucifixus," the fourth piece of the first volume. In "Crucifixus," Part C is marked "Adagio molto [a semiquaver =40]; serene, transcendental." In "Agnus Dei," the transcendental quality of Part C of "Crucifixus" is somewhat weakened by the shortened length of rests between musical figures. In the sketch, Crumb writes, "more intense, painful" in his description of Part C in "Agnus Dei."

Visually, “Agnus Dei” appears to have four sections, but the musical content suggests a three-part formal design: section I (AB), section II (C), and section III (D). Each section is self-contained and linked to the following section with an approximately four-second rest during which sounds are prolonged by the use of a damper pedal.

As in “Spiral Galaxy,” there are no contrasting speeds or dynamic levels in “Agnus Dei.” All sections are marked “very slow,” and only soft dynamics (from *pppppp* to *p*) are used. This is emphasized in section D where Crumb writes “incredibly soft, on threshold of silence,” next to the dynamic marking *pppppp*.

The idea of the “timeless” as unending, cyclic time is suggested in Part D by the use of cyclically repeated materials. The repetition of musical materials gives the illusion that the music carries on. To achieve this effect, the performer must carefully observe Crumb’s direction “[senza rit.]” at the end of the piece. There is further discussion of this in Chapter 6.

4.3.2.1.3 “The Magic Circle of Infinity (Moto Perpetuo)”

Both “Spiral Galaxy” and “Agnus Dei” delineate cyclic time in a slow tempo; in contrast, “The Magic Circle of Infinity (Moto Perpetuo)” achieves this in a fast tempo. As the title suggests, this piece deals with infinity, the opposite of (human) time. It presents time as having no clear beginning or end. In Part B, Crumb writes “Joyously, like a *cosmic* clock-work,” relating the dichotomy of time and timelessness to the duality between “earthly” time and timeless space.[422] Crumb’s sketch records his initial idea was to present this piece and “Spiral Galaxy” as a contrasting pair in terms of speeds: the symbolic notations of a spiral and a circle accompany his notes,

[422] Italic emphasis mine.

"(slow)" and "(fast)," respectively.[423] "The Magic Circle of Infinity" is not often considered a piece representing "timelessness" (only Adamenko regards this piece as one of the "timeless" pieces because of the notation); Crumb's sketch shows that "timelessness" underlies the concept of this piece as well.

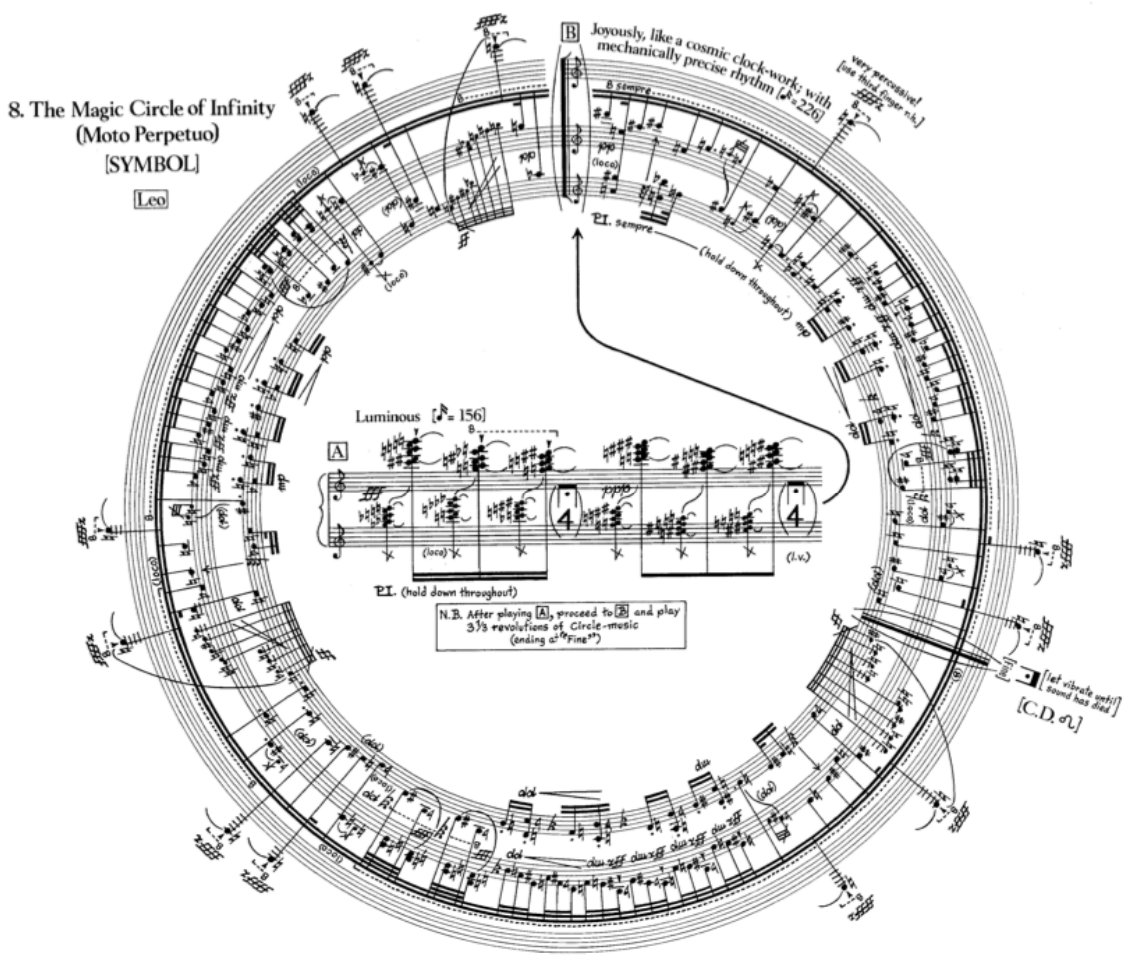

Figure 4.4. "The Magic Circle of Infinity" from *Makrokosmos I* ©1973 by C. F. Peters Corporation. Reproduced by kind permission of Peters Edition Limited, London

"The Magic Circle of Infinity" is notated in both linear and circular formats. The former is used for Part A "Luminous [a semiquaver=156]," and the latter for Part

[423] Next to the symbolic notations, Crumb quotes Rilke, "The clocks call striking to each other, and one sees to the bottom of time." Crumb underlines the phrase "the bottom of time" and writes, "these pieces must be meaningful."

B, “Joyously, like a cosmic clock-work; with mechanically precise rhythm [a semiquaver=226].” The circular notation of Part B matches its cyclic form.

Part A contains three semiquaver chords and three quaver chords, both consisting of a whole-tone scale. Each chord is preceded by a whole-tone grace note. The top notes of the first three chords are B-F-D#, [0, 2, 6], and those of the second are A#-E-F#, [0, 4, 6]. These pitch-class sets are whole-tone subsets and contain a tritone. These chords also appear in “Litany of Galactic Bells,” the piece which precedes “Agnus Dei” in Volume II, thus the chords in Part A of “The Magic Circle of Infinity” can also be heard as bells. The use of sound decay during a four-second rest in Part A and at the transition between Parts A and B features the spacious dimension of this piece, similar to “Spiral Galaxy.”

The exploitation of cyclic form and cyclic repetitions is most obvious in Part B. The pianist needs to repeat “circle-music” three and 1/3 times. In another sketch, Crumb writes, “'infinity' (go around circle-perpetuo) (moto perpetuo) [dal niente al niente, at least 3 times around circle].” A quick tempo makes the depiction of the perpetual movement of “cosmic clock-work” possible. The pitch contents are also cyclically repeated within Part B as well as between Parts A and B. “Circle-music” (Part B) is notated with three staves. The outer circle is assigned to three notes, B-A-F, [0, 4, 6], a whole-tone subset used in Part A. This motif, marked *ffffz*, stands out dynamically from the texture and is repeated *four* times in the outer circle; it is not heard as a goal or a climax because the music scored in the inner circle is perpetually heard underneath. The inner circles can be divided into *three* sections in which the same musical contents are repeated. This includes [0, 2, 6], another whole-tone subset used in Part A. This pitch-class set appears as a three-note repeated figure played by the right hand. As in “Spiral Galaxy” and “Agnus Dei,” the minimalistic use of pitch

and pitch-class sets produces harmonic stasis and highlights the cyclic nature of the music. The different timings of the recurring motives between the outer and inner circles also suggest an allusion to the different speeds of the planets in their orbit.

The structure of Part B represents the idea of time having no clear beginning or end. The recurrence of musical contents in this section suggests a three-part division; the beginning and ending of each section are ambiguously presented. The piece ends after repeating the "circle-music" 3 and 1/3 times, immediately before the first whole-tone grace notes. If this were intended to mark the end of a section, the whole-tone grace notes would signal the beginning of each section. However, this does not coincide with where Crumb starts the "circle-music": at the top of a circle, the whole-tone grace notes are placed before a double bar. For practical purposes, Crumb needed to mark the end of the piece, thus, he directs the performer to play the "circle-music" 3 and 1/3 times. However, when the "circle-music" is played throughout, the double bar is disregarded, and the grace notes follow without interruption. This ambiguous beginning and ending captures the endlessness of cyclic time, and the idea of the timeless as infinite. In performance, the perpetual movements of cosmic clock can be communicated when the structural division is not made explicit. This is further discussed in Chapter 6.

In "Spiral Galaxy," "Agnus Dei," and "The Magic Circle of Infinity," Crumb's concept of "timelessness" is presented as cyclic time, which has no clear beginning or end. This is mainly conveyed through cyclic form and cyclic repetitions of the musical ideas. The minimalistic use of pitch and pitch-class sets also enable the listener to perceive the circularity of the music. The limited use of harmonic language contributes to creating a slow harmonic rhythm and stasis, obscuring a sense of

direction. In this, the influence of Asian music can be seen. The exploitation of sound decay during a rest makes the listener aware of the feeling of spaciousness embodied in these pieces. In addition, these three pieces are written without a meter and contain polyrhythm, e.g., the combination of quintuplets and triplets in "Spiral Galaxy." The elimination of a strong rhythmic impulse in the spatialization of music is a point made by Rochberg.[424]

4.3.2.2 "Timelessness" as Nonlinear Time That Does Not Flow From Past to Future: "Dream Images (Love-Death Music)"

In "Dream Images (Love-Death Music)," Crumb creates another type of "timelessness": nonlinear time that does not flow from past to future.[425] In this movement, Crumb quotes the middle section of *Fantasie Impromptu* (1834) by Frédéric Chopin (1810-1849). In the dreamy sonority created by prolonged chords in the low register and repeated three-note motives in the high register, this familiar tune emerges like a distant memory. The performance direction, "Musingly, like the gentle caress of a faintly remembered music [a crotchet=60, but flexible and expressive]," confirms Crumb's experimentation with blurring the boundaries between present and past, and between dreams and reality.[426]

In order to achieve the blurred boundaries, Crumb introduces Chopin's left-hand arpeggiated D-flat major chords beneath unmeasured three-note (F-G-A)

[424] Rochberg, 1. Cf. See Chapter 2. Crumb also discusses the elimination of metrics and tactus in his "suspended" music. See his interview quoted in 4.1.
[425] In *Merriam-Webster,* time is defined as "a nonspatial continuum that is measured in terms of events which succeed on another from past through present to future." See "Time," *2015 Merriam-Webster*, <http://www.merriam-webster.com/dictionary/temporal>, accessed on 7 June 2015.
[426] As discussed in the section 4.1, Crumb's *Dream Sequences* combines an image of a dream and timelessness.

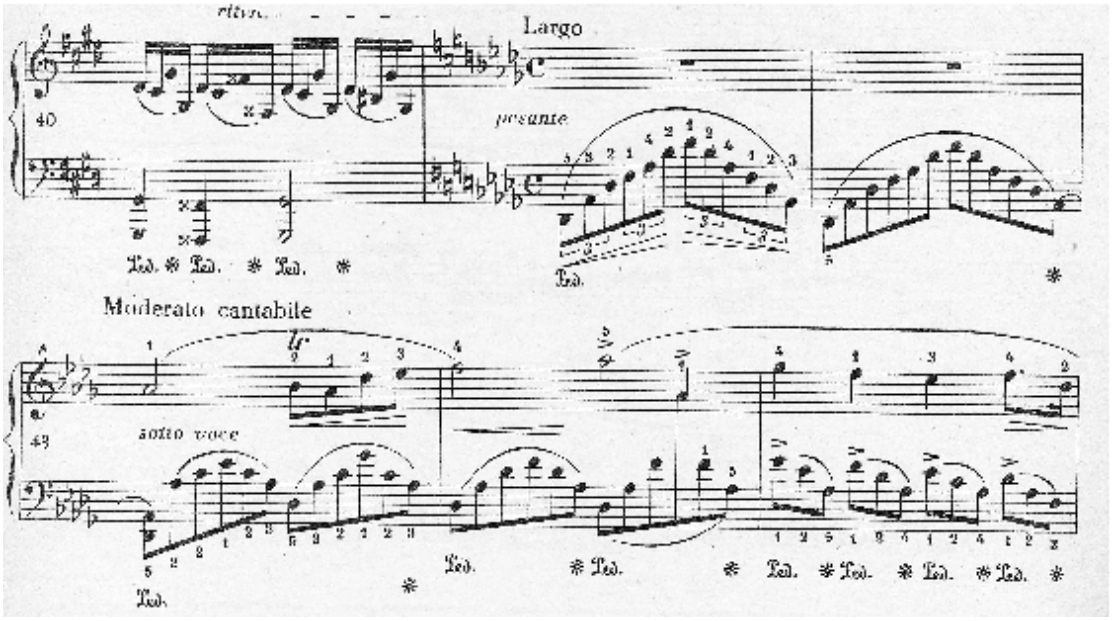

Figure 4.5. Chopin's *Fantasie Impromptu* mm. 41-45

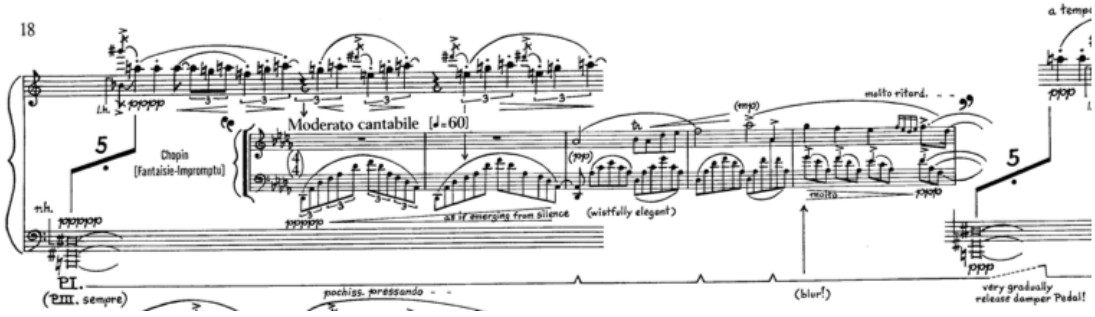

Figure 4.6. "Dream Images" line 2 from *Makrokormos I* ©1973 by C. F. Peters Corporation. Reproduced by kind permission of Peters Edition Limited, London

motives in the second line of the piece. Crumb changed dynamic markings from Chopin's originals. In the *Impromptu* the left-hand arpeggios are marked *pesante* and should be played *ff* (continued from m. 37) with a *crescendo* and a *decrescendo*, but Crumb marks *ppppp* and adds a performance direction, "as if emerging from silence (wistfully elegant)." Chopin's tune is quoted three times, five measures in the first time, four measures in the second time, and two measures in the third time. In every instance, Crumb omits a cadence (an end), and prolongs the last chord with a damper pedal. "Molt ritard." at the end of the quotation and a blurred sonority produced by an unchanged damper pedal (regardless of harmonic changes) facilitate the harmonically

bizarre transition from a D-flat major chord to a B major chord, from Chopin (past) to Crumb (present).

In this movement, Crumb exploits the relationship between the listener's memory and the psychological perception of time. While hearing the familiar tune, it is as if the listener's mind wanders, trying to recall where the original piece comes from. Perhaps, the listener's mind travels to the past, to the time when they heard the piece, or perhaps they had practiced it. Through personal memories and reference, the listener simultaneously experiences two layers of time— past and present—in a nonlinear manner. The juxtaposition of metered and measured music (Chopin) and unmetered and unmeasured music (Crumb) also captures the irregular flow of nonlinear time. Crumb's quotation of *Fantasie Impromptu* may reflect his perception of Chopin's music having a sense of "suspended" time:

> Another composer whose rhythmic sensitivity impresses me is Chopin. I am thinking primarily of certain of the nocturnes, in which he achieves a sense of "suspended time" (as in much new music), but also provides a feeling of growth and progression through time.[427]

4.3.2.3 Timelessness Constructed Through the Contrast Between Change and Stasis: "The Mystic Chord"

In "The Mystic Chord," timelessness is constructed through the contrast between change and stasis. This movement consists of two dramatically opposing musical ideas: the music marked "Adagio molto [a crotchet = 34]; serene, desireless, like a Nirvana-trance" and "Music of Strife," marked "intrusive, eruptive [a tempo sempre]." The word *nirvana* symbolically represents musical stasis, creating a transcendental mood and making a clear contrast with the agitated mood of "Music of

[427] Crumb, "Music: Does it Have a Future?" 120.

Strife." Both parts are written in 3/4 and played in the same tempo throughout; two opposing moods are constructed through a clear division of registers, and contrasting dynamics.

The "*nirvana*" section starts with silently pressed E-D#-B flat-A [0,1,6,7], prolonged by a sostenuto pedal for the duration of the entire piece. This section consists of three materials: the chord played on keys, a glissando over strings, and a whole-tone passage, played pizzicato and on keys alternately. The use of a whole-tone scale is reminiscent of Scriabin's mystic chord, a.k.a. Prometheus chord, C-F#-B flat-E-A-D [0, 2, 4, 6, 8 ,9].[428] "Music of Strife" starts with a succession of tritones (F-B, E-B flat, E flat-A, C-F#, G#-D, and G-C#) and a highly chromatic chord (F-G-A flat-A-B flat). This is followed by a succession of chords, consisting of a semi-tone and a tritone ([0, 1, 6] and [0, 5, 6]). A group of repeated seconds (B-C and F-G in the second line, A flat-B flat, and D-E in the third line) are used only in this section.

The two contrasting moods are made explicit by the clearly divided use of registers, dynamics, and rhythms between the sections. The *nirvana* section is played softly (from *pppp* to *pp*) in the higher register, has a slow harmonic rhythm, and uses long note values (a semiquaver quintuplet is the smallest note value), while "Music of Strife" is played loudly (*fff*, *fffz*, and *ffff*) in the lower register with staccatos and has a quick harmonic rhythm and a fast rhythmic movement (e.g., 15 demisemiquavers played within the length of a crotchet).

The contrast highlights two opposing emotional states; serene with demonic and static with active. This serves to emphasis the nonlinear, static nature of the *nirvana* section.

[428] "Alexander Scriabin," *Grove Music Online*, accessed on 31 August 2015.

4.3.2.4 Three Types of Nonlinearity (Timelessness) and Kramer's model

The difference between the three types of timelessness can be further clarified by Kramer's definition of "moment" time and "vertical" time. Music in "moment" time consists of a succession of self-contained sections that are not related functionally, and the musical continuity does not form part of the musical syntax.[429] Music in "vertical" time lacks progression, goal direction, movement, and contrasting motions and changes.[430]

The first type of timelessness, cyclic time, can be explained with the features of Kramer's "vertical" time. In "Spiral Galaxy," "Agnus Dei," and "The Magic Circle of Infinity," musical materials are arranged without a sense of direction or an aim to achieve a particular goal. In these movements, Crumb's use of "time suspension" or "suspended" time is most obvious. The second type of timelessness, nonlinear time that does not flow from past to future, can be understood as "moment" time. In "Dream Images," the listener experiences the coexistence of past and present while hearing the quotation of Chopin's *Fantasie Impromptu*. This tune is constructed linearly with a tonal reference; however, Crumb avoids a cadence at the transitions from the tune to his materials so that he can eliminate any sense of moving towards a goal. The two musics (the quotation and Crumb's original work) are not functionally related. The third type of timelessness is constructed through the contrast between change and stasis. In "The Mystic Chord," the *nirvana* section can be experienced as "vertical" time because of its static nature and a lack of motion. However, the temporality of the whole piece may be perceived as "moment" time because of a clear contrast between the serene mood of the *nirvana* section and the agitated mood of

[429] Cf. see Chapter 2 for Kramer's definition of "moment" time.
[430] Cf. see Chapter 2 for Kramer's definition of "vertical" time.

"Music of Strife." The juxtaposition of these dramatically contrasted sections also negates the traditional sense of a "musical progression."

4.3.3 Asian Reference, Linearity, and Nonlinearity

In *Makrokosmos I & II*, reference to Asia can be seen in the two words of Asian origin, *nirvana* and *tora, tora, tora*, used in "The Mystic Chord" and "Tora! Tora! Tora! (Cadenza Apocalittica)," respectively, as well as the use of circular notations and a slow harmonic rhythm, both employed in the three "cyclic" pieces discussed above. However, unlike Cage who used Asian materials as the antithesis of the European tradition, Crumb does not always employ Asian references as the symbol of nonlinearity. By combining Asian and Western materials, Crumb avoids the representation of Asia as a distant, exotic utopia, but attempts to present it as a close, real place, belonging to the world that he is living in.

In the sonority of "Morning Music (Genesis II)," an influence of Debussy and Asian music can be heard. Crumb uses a pentatonic scale and explores a *koto*-like sonority produced with a sheet of paper placed on the strings. Similar to "Spiral Galaxy," he cyclically repeats circling figures (e.g., a right-hand motif circling around D#-F#- G#-A# and a left-hand motif circling around C-D-E-G-A in the first line). These musical materials are reminiscent of Debussy's evocation of Asia as seen in "Pagodes."

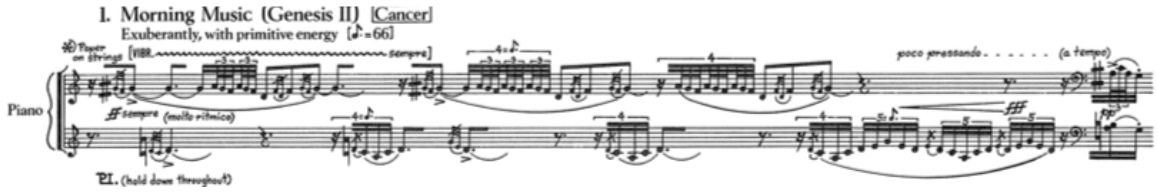

Figure 4.7. "Morning Music" line 1 from *Makrokosmos II* ©1974 by C. F. Peters Corporation. Reproduced by kind permission of Peters Edition Limited, London

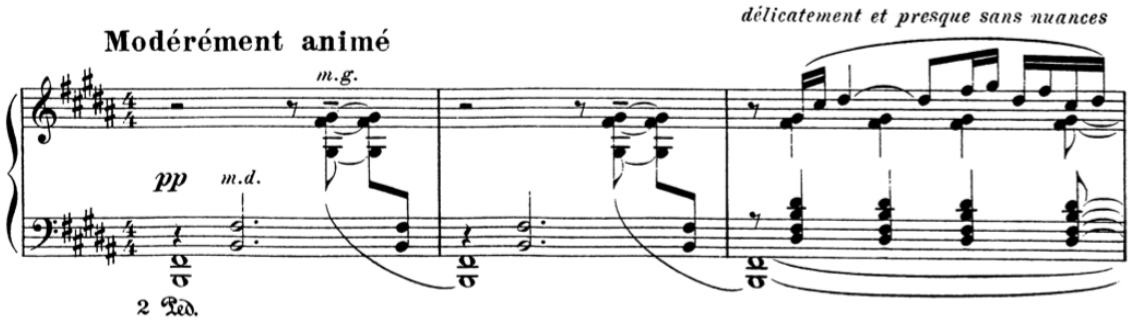

Figure 4.8. Debussy's "Pagodes" from *Estampes* mm. 1-3

The highly repetitive, non-directive nature of the circling figures might be perceived as the attribute of nonlinearity; the music suggests a linear progression towards a climax and a goal. "Morning Music" is in a ternary form, and the music reaches a climax before the recapitulation of the first part. Section A contains the circling figures discussed above (figure a), a motif consisting of a juxtaposition of major thirds (figure b), a juxtaposition of a perfect fifth (A-E and B-F#) (figure c). The introduction of a new material, accompanied by a *subito* pianissimo signals the beginning of section B at the end of line 3. In contrast to the circling figure (a), slurred and marked *legatissimo* (at the end of the second line), the new material is marked *staccatissimo*. The contrast between sections A and B is also made by a linearly ascending melodic contour in the latter section, which becomes obvious from the sixth line. Towards the climax, a motif constructed on a white-key pentatonic scale (C-D-F-G-A) ascends from C to A. This linear motion is accompanied by a *molto crescendo* (at the beginning of the seventh line). After this climax, figures (c) and (a) return, marking the beginning of section A'. This formal design epitomizes Crumb's compositional style and inclination towards "the more traditional principle

of repetition-with-contrast," which he considers the compositional technique of the earlier composers.[431]

"Morning Music" differs from the cyclic pieces discussed above. The contrasting features in "Morning Music" are clearly marked by differences in dynamic levels and articulations. Furthermore, the ending of the movement is signalled by *poco ritardando* marked above the last circling figures and a *decrescendo*, whereas the direction in the cyclic pieces is to play *senza rit.* to evoke a sense of never ending time.

In "Tora! Tora! Tora! (Cadenza Apocalittica)," Asia (Japan) is represented as the evil that caused an apocalyptic event. In this highly bombastic, violent piece, there is no sign of the calm and tranquil Asia depicted in "The Mystic Chord." Climaxes in "Tora! Tora! Tora!" are clearly indicated with loud dynamics and rapid *glissandi*.

Both "Morning Music (Genesis II) and "Tora! Tora! Tora! (Cadenza Apocalittica)" suggest not only Asian references but also the Western structure of time. The subtitles of these pieces refer to Biblical events, and they are ordered as the first and the seventh piece of Volume II, respectively. These numbers signify the beginning and end of the first week of God's creation in "Genesis." The combination of Asia (East) and West can also be seen in "The Mystic Chord": the word *nirvana* describes the calm, peaceful character of the music, but the music also suggests a reference to the Russian composer Alexander Scriabin's mystic chord. These combinations of Asia (East) and West may be seen as Crumb's attempt to escape from the simple, clear-cut division between East and West, reminding us of how he obscures the boundary between past and present, or a dream and reality in "Dream Images."

[431] Crumb, "Music," 121.

Other instances of Crumb's use of Asian materials within the Western framework can be seen in the rest of the work. "Tora! Tora! Tora!" is followed by "A Prophecy of Nostradamus," which quotes "Dies Irae" (Day of Wrath) as "Tema enigmatico." The number 13 used in the meter 13/4 refers to the day of judgement. Then, the 24 "fantasy-pieces" concludes with the final piece "Agnus Dei," notated in the shape of a peace sign. In this movement, Crumb combines "suspended" time inspired by Asian music and the Western hymn "dona nobis pacem." The juxtaposition of the two cultures is suggestive of Crumb's view on contemporary music: "[T]he total musical culture of Planet Earth is 'coming together.'"[432]

In *Makrokosmos I & II*, Crumb represents Asia in a dualistically contrasted manner. In "The Mystic Chord," the word *nirvana* provides an image of "mystic," exotic, transcendental Asia. In "Tora! Tora! Tora!" Asia is no longer a distant utopia, but a threatening, real place. This image of Asia is different from the "delicate" Asia depicted in Debussy's "Pagodes."[433] Crumb's new orientation to Asia is understandable, since his generation has had a closer relationship with East Asia, experiencing world events more or less instantly through mass media. Crumb's reinterpretation of Asia makes performers and listeners aware of the contemporary music culture of "Planet Earth" in which the boundary between East and West is blurred.

Conclusion

Crumb often used the terms "timelessness" and "suspended time" interchangeably in his writings and interviews. His use of the word "timeless" can be

[432] Ibid., 116.
[433] See Debussy's marking "délicatement et presque sans nuances" in m. 3.

seen in the contexts of a distant past, measureless time, spaciousness, endless time, a dream, and circularity. His music dealing with these images often displays features of "suspended" music created by drones and a slow harmonic movement.

Both Western and Asian culture influenced Crumb's construction of timelessness and suspended time in his works. His Western sources include the music of Debussy, Stravinsky, and Cage. Crumb's encounter with Asian music took place at the University of Pennsylvania where he frequently heard two Indian instruments, tabla and sitar. In a recent interview, he acknowledges that a slow harmonic movement in Asian music aesthetically inspired him. The unpublished work *Mandara* evidently displays how the Asian circular symbol has affected his understanding of cyclic time.

In the programme note to *Makrokosmos I & II*, Crumb states that the concept of the "timelessness" of time has served as one of the underlying images of the work. This can be seen in both extra-musical (e.g., words and symbolic notations) and musical expressions. There are three means of expressing "timelessness" in the work: cyclic time ("Spiral Galaxy," "Agus Dei," and "The Magic Circle of Infinity"); time that does not flow from past, to present, to future ("Dream Images"); the timeless created through the contrast between change and stasis ("The Mystic Chord").

In the work, Crumb borrows from the "Orient" in "Morning Music (Genesis II)" and uses two words of Asian origin, *nirvana* and *tora tora tora*, in "The Mystic Chord" and "Tora! Tora! Tora! (Cadenza Apocalittica)," respectively; reference to Western traditions (e.g., biblical events and Scribain's mystic chord) in these pieces suggests that Crumb does not associate Asia solely with nonlinearity. This can be seen as an attempt to dualistically present Asia through the eyes of a post-Cagian composer.

5. "THE SENSE OF TIME, THE SENSE OF SPACE, AND THE SENSITIVITY TO COLOUR AND TONE" IN TŌRU TAKEMITSU'S *RAIN TREE SKETCH*, *RAIN TREE SKETCH II*, AND *ORION*

Introduction

In common with other contemporary Japanese composers, Tōru Takemitsu was deeply concerned with the essence of his country's traditional music; "the sense of time, the sense of space, and the sensitivity to colour and tone."[434] He sought to explore the concept of *ma* and the Japanese view of time as cyclic. How this influenced his compositional method and use of silence has frequently been discussed. However, issues of interpretation and performance practice, for example, how the notation of rhythm communicates the concept of *ma* and how this affects rhythm and tempo in performance, have not yet been studied.

This chapter traces how Takemitsu's study of natural cycles and traditional Japanese music influenced his understanding of the concept of cyclic time (5.1). This is illustrated by an analysis of *Rain Tree Sketch* (1982) in which the concept of *ma* is adopted (5.2). To examine how *ma* relates to his idea of rhythm and tempo, interviews with Takemitsu and the performers who worked with him are consulted.

Takemitsu's creative process is explored through the manuscripts of *Rain Tree Sketch II* (1992) and *Orion* for cello and piano (1984) (5.3). No previous research using primary sources was found. His sketches and manuscripts are archived at *Nihon Kindai Ongakukan* (Archives for Modern Japanese Music), part of the library of *Meiji Gakuin* University.[435] In the analysis, any indications showing his assimilation of *ma* and his sense of rhythm and tempo were paid special attention. A case study of *Orion*

[434] Takemitsu, "Contemporary Music of Japan," 203-4.
[435] This archive does not have the manuscript of *Rain Tree Sketch*.

with the cellist Marta Albright is presented as an example of how *ma* can be expressed between two performers (5.4).

Finally, how Takemitsu's works may be understood in the context of musical temporality is discussed (5.5).

5.1 Takemitsu's Learning of Japanese Traditions

5.1.1 Natural Cycles and Cyclic Time

Rain Tree Sketch (1982) relates to the Japanese writer Kenzabrō Ōe's "Atama no ii Rain Tree" (1981).[436] Takemitsu was inspired by Ōe's depiction of a rain tree:

> It has been named the 'rain tree', for its abundant foliage continues to let fall rain drops collected from last night's shower until well after the following midday. Its hundreds of thousands of tiny leaves—finger-like—store up moisture while other trees dry up at once. What an ingenious tree, isn't it?[437]

In his programme note to *Rain Tree* for three percussions (1981), the first work of his *Rain Tree* series, the composer states that it is composed not as a simple narrative but as a metaphor of "circulating water in the cosmos,"[438] a reference to the natural cycles of water.

The image of "circulating water in the cosmos" has been a recurring feature in Takemitsu's works. His fascination is expressed in the programme note to *Marginalia* (1976):

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[436] Kenzaburo Ōe, "Atama no ii Rain Tree (Smart Rain Tree)," *Bungakukai* (November 1981). Later, this novel was included in Ōe's book *Ame no Ki wo kiku Onna-tachi* (Tokyo: Shincho-Sha, 1982).

[437] Kenzaburo Ōe, "Rain Tree Shōsetsu Kara," in *Takemitsu Tōru no Sekai*, edited by Shinya Saitō and Maki Takemitsu (Tokyo: Shūei-sha, 1997), 60. This translation was made by Ōe's friend who just called Y in the article. Ōe cites not his original Japanese version, but the English translation. This translation appears in the 1982 edition of "Atama no ii Rain Tree," compiled in *Ame no Ki wo kiku Onna-tachi*. < http://www.cogito-kobo.net/OshaberiHondana/OeKenzaburo/OeKenzaburoAmenokiwoKikuOnnatachi.html>, last accessed on 4 September, 2012.

[438] Takemitsu, "Program Notes," in *Takemitsu Tōru Chosakushū*, vol. 5, 385-6.

> When I conceptualized *Marginalia* I had a vivid image of water along with the ideas of margin and edge, the meanings of the title… We know water, which is circulating in the cosmos, only in its transitory forms. They are called rain, lake, river, and the ocean.[439]

The word *cycle* appears earlier, in the programme note to his *Arc* for piano and orchestra (1963):

> In this world, every living creature has its own cycle, including what we can and cannot see. This can be also said for the sound. Sound perpetually changes over time. Every single sound has a beautiful shape and structure like a cell of a living creature….[440]

This work demonstrates Takemitsu's idea of "heterocyclic time," an idea inspired by Japanese gardens in which different plants live in their own time cycles and together create "heterocyclic" rhythm.[441] In the movement entitled "Texture," this idea is expressed by the cyclic repetitions of six juxtaposed short passages, played by three trumpets and trombones, each starting at slightly different timings. One of the passages with cyclic repetitions is marked "At first it should be played slowly and quietly (*pp~mf*) and then make *crescendo* and *accelerando* (to *ff*) in the repeating phrases." This creates a similar sonority to the introduction of some *komagaku* (a type of the Japanese traditional music *gagaku*) pieces.[442]

Before composing *Arc*, Takemitsu had attended a *gagaku* performance in 1961. His diary reports his excitement about its "immeasurable metaphysical time,"

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[439] Takemitsu, "Programme Notes," 438-9.
[440] Takemitsu, "Programme Notes," 382.
[441] Tōru Takemitsu, "Ongaku no Yohaku kara (1980)," in *Takemitsu Tōru Chosakushū*, vol. 2, 25. This explanation was given in the transcript of Takemitsu's lecture at Yale University in 1975.
[442] The ethnomusicologist William Malm (2000) explains the sonority of a *komagaku* piece "the temporary chaos of free rhythmic canonic sound" is created by the passages "taken up by the various winds in what amounts to a short stretto, each beginning at a slightly different time." See William P. Malm, *Traditional Japanese Music and Musical Instruments: New Edition* (Tokyo, New York, and London: Kōdansha International, 2000), 116.

which "lacks the concept of steady beat in European terms."[443] He writes that the *shō* (a Japanese mouth organ which produces a smooth, non-vibrating sound as well as tone clusters) creates "a tranquil flow of time created by breathing," in contrast to "the active rhythm produced by physical movements."[444] Japanese music specialists, such as Fumio Koizumi (1994), Malm (2000), and Steven Nelson (2008), agree that *gagaku* has metres, but it would not be surprising if a non-expert listener like Takemitsu did not perceive the sense of metre in a *gagaku* performance: it does not exhibit the clear strong-weak relationship between beats that is found in Western music.[445]

Takemitsu was captivated by the long sustained sound and tone clusters produced by the *shō*. He experimented with recreating this sonority with Western instruments in *Landscape* for string quartet (1958-60).[446] This sonority is also evident in "Texture," and in *Shūteika* (In an Autumn Garden) (1973), the fourth piece of *Shūteika Ichigu*, for *gagaku* orchestra. Here too the music evokes an image of a Japanese garden with cyclic repetitions.

By immersing himself in traditional Japanese music, Takemitsu began to formulate his definition of "Japanese" qualities and "Japanese" concepts of time:

> The Japanese live within an essentially temporal world-view. For the Japanese, nature as well as man are entities that live and die within a world of time… [I]n Japan time is perceived as a circulating and repeating entity… Nature is conceived in terms of the seasons, and this has given rise to a unique temporal sense, which has been further fostered by the

[443] Takemitsu, "Chinmoku to Hakari aeru hodo ni (1971)," *Chosakushū*, vol.1, 40-41.
[444] Ibid.
[445] Fumio Koizumi, *Nihon no Oto: Sekai no naka no Nihon Ongaku* (Tokyo: Heibon-sha, 1994), 341-2; Malm, 107; Steven G. Nelson, "Court and religious music (2): music of *gagaku* and *shomyo*" in *The Ashgate Research Companion to Japanese Music*, edited by Alison McQueen Tokita and David W. Hughes (Aldershot: Ashgate Publishing Limited, 2008), 58;
[446] Takemitsu, "Programme Notes," 448.

> influence of Zen and Buddhist teachings. This special temporal sense is strongly reflected in the time structures of the traditional music of Japan.[447]

As he claims, the Japanese historically held the notion of cyclic time as seen in the opening of *Heike Monogatari*, a collection of stories originally sung by *biwahōshi* (a blind *biwa* player) during the *Kamakura* period (1185-1333), narrating the *Heike* government's rise and fall:[448]

> 祇園精舎の鐘の声、諸行無常の響きあり。
> 沙羅双樹の花の色、盛者必衰の理をあらはす。
> 奢れる人も久しからず、唯春の夜の夢のごとし。
> たけき者も遂には滅びぬ、偏に風の前の塵に同じ。[449]
>
> (The bell sound of *gionshōja* tells that all worldly things are transitory.
> The blossoms of the sal-tree represent the natural order of prosperity and decline.
> A powerful person with vanity loses his status and position like a dream in spring.
> The strong person will eventually be banished like dust in front of wind.)

The Japanese have traditionally linked human activities with the natural order of life and death, and attended to the recurrence of events. This corresponds to the seasonal changes and cycles in nature. Takemitsu's awareness of this Japanese aesthetic underlies his understanding of cyclic time.

The concept of cyclic time may have influenced Takemitsu's images of "circulating water in the cosmos," or vice versa. The Japanese words signifying cyclic, "*junkan*" and "*enkan*," frequently appear in the descriptions of his water-themed music: *Marginalia* (1976) discussed above, *Rain Tree* for three percussionists (1981), *Rain Tree Sketch* for piano (1982), *Water Dreaming* for flute and orchestra (1987), *How Slow the Wind* for orchestra (1991), *Rain Tree Sketch II –In Memoriam*

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[447] Takemitsu, "My perception of time in traditional Japanese music," 11-12.
[448] *Heike Monogatari* is transmitted orally by *biwahōshi*. There is no written evidence to prove the date of a public performance.
[449] Manabu Osieru.com, "Kan Dai ichi, Gion Shoja," in *Heike Monogatari* <http://www.manabu-oshieru.com/daigakujuken/kobun/heike/01/0101.html >, accessed on 1 September 2012.

of Olivier Messiaen (1992) for piano. In these works, cyclic repetitions of motif are continuously exploited.

From the late 1970s onward, the words "*junkan*" and "*enkan*" became Takemitsu's keywords to delineate the Japanese view of time. In correspondence with the Japanese anthropologist Jyunzō Kawada in 1979, Takemitsu contrasts the concepts of European and Japanese time with the words *tyokusen* (linear) and *enkan* (cyclic), respectively.[450] Kawada, who was a researcher at the *Université de Paris* studying *Mossi* culture in Africa, pointed out that the French also lived with the notion of cyclic time; however, Takemitsu never gave up his dualistic view of the difference between European and Japanese concepts of time:

> The European concept of time is straight from the past to the future and can be divided into equal intervals. However, time of Japanese music is not linear; the beginning and ending are overlapping, and it cannot be counted in an equal time span. The rhythm of Western music has a mathematical integral based on the premise that any part of time can be homogenous and it can be equally divided; however, that of Japanese music does not have that kind of integration. Since it essentially contains swinging or ambiguity, the time is heterogeneous.[451]

Although the concept of linear time is predominant in Classical and Romantic music, every beat of a metre is not played equally as Takemitsu claims (see Chapter 2). It is not until the beginning of the twentieth century that Western music started to

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[450] Takemitsu, "Oto, Kotoba, Ningen (1980)," in *Takemitsu Tōru Chosakushū*, vol. 4, 99. Takemitsu frequently uses these words in writings and interviews, e.g., in "Yume to Kazu (Dream and Number) (1984)," in *Takemitsu Tōru Chosakushū,* vol. 5, 7-48.

[451] Takashi Tachibana, "Takemitsu Toru, Ongaku Sozo e no Tabi 6," *Bungakukai* (November 1992), 274-5. This is a view similar to that of the philosopher F. S. C. Northrop that is introduced in Chapter 1.
西欧の時間というのは、過去から未来に向かって一直線に流れる時間で、しかもそれは、きちんと等間隔に刻める時間です。しかし、日本の音楽なんかが持っている時間感覚というのは、一直線の流れじゃなくて、はじめと終りがくっついたような空間構造をあわせもっているんですね。しかも、それはきちんと等間隔に刻めない時間なんです。西洋音楽のリズムというのは、時間はどの部分も等質て等間隔に刻めるという前提の上に構成された数学的整合性をもった構造なんですよね。しかし、日本の音楽のリズムにはそういう整合性はないわけです。ゆらぎとかあいまいさが本質的に組み込まれているから、時間は等質じゃないんです。

be concerned with *spatialised*, absolute time. Takemitsu acknowledges that *agogic* exists in the performance of Western music; however, he maintains that the metric system of Western music, based on mathematical, linear time, differs from *mitsuji* rhythm, a type of rhythm in *nō*, which has beats of different length.[452]

5.1.2 Japanese Rhythm and Attention to Timbre: *Jo-ha-kyū* and the Concept of *Ma*

In the *gagaku* piece *In an Autumn Garden*, Takemitsu uses the Japanese rhythm *jo-ha-kyū* in the *taiko* part (Figure 5.1).[453] The *jo-ha-kyū* rhythm starts slowly, accelerates to a climax, then stops, and starts again. To Takemitsu the aesthetic of the rhythm reflected the Japanese notion of cyclic time.[454] The *nō* actor Kunio Konparu (1983) explains this typically Japanese rhythm:

> *Jo-ha-kyū* governs all the rhythms of *Noh*, based on the assumption that *jo-ha-kyū* is the natural rhythm of human life, that all thought and verbal modulations proceed not at an even pace but with time on an incline, so to speak. The idea is that the most natural, human way of being and doing is to begin slowly and gradually build to a rapid climax, to stop, and begin again. The *jo-ha-kyū* of rhythm in *Noh*, in other words, is the application of the theory because human beings always exist in a state of unbalanced harmony, our aesthetic consciousness of rhythm also exists within a disharmonious construct.[455]

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[452] Takemitsu, "Oto, Kotoba, Ningen (1980)," 100. Indeed, Western philosophers and musicians are concerned with mathematical correct proportions in music. See Chapter 2.

[453] Takemitsu writes, "振動拍子のように" in the taiko part to describe this rhythm.

[454] Takemitsu, "Ongaku wo Yobisamasu Mono (1985)," in *Tōru Takemitsu Chosakushū* vol.2 (Tokyo: Shincho-sha, 2000), 216.

[455] Kunio Konparu, *The Noh Theatre: Principles and Perspectives* (New York: Weatherhill/Tankosha, 1983), 29.

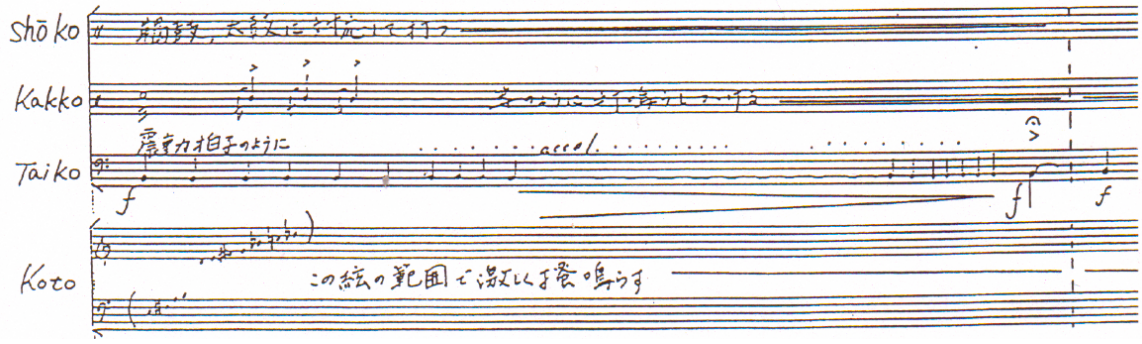

Figure 5.1. the rhythm of *jo-hakyū* in the *taiko* part from *In an Autumn Garden* ©1992, Schott Music Co. Ltd., Tokyo. Reproduced by permission of Schott Music Ltd. All rights reserved

Konparu considers that *jo-ha-kyū* also represents the Japanese preference for asymmetry. In Japanese aesthetics, odd numbers are considered "more felicitous than even numbers."[456] For instance, *shichi go san* (7 5 3), celebrates children's growth at the ages of 3, 5, and 7. Konparu asserts that this preference for odd numbers is reflected in the asymmetrical design in Japanese arts:

> Even numbers can be divided into two equal parts, resulting in symmetry, while odd numbers of course cannot. At first, a preference for odd numbers may seem less than ideal for the composition of real things (buildings, for example), but this approach to aesthetic consciousness is an intentional rejection of the harmonious in favor of the discordant, a consistent respect for the asymmetrical in time and space constructs.[457]

Takemitsu was also interested in the Japanese aesthetic of *ma* which embraces the concept of asymmetrical time. In 1960, collaborating with the *nō* actor Hisao Kanze in composing the tape music *Mizu no Kyoku* (1960) to accompany Kanze's dance for a project at *Sōgetsu Art Centre*,[458] Takemitsu aimed to project "the

[456] Ibid., 21.
[457] Ibid.
[458] In the programme of the premiere performance at *Sōgetsu Art Centre*, the title was *Nō-Bu* (*nō* dance) *Mizu no Kyoku*. The recording of this piece is not available in the UK. Takemitsu benefited from cultural activities at *Sōgetsu Art Centre* founded in 1958, which provided young artists with opportunities to interact with their fellow musicians and artists. This cultural centre also organized *Sōgetsu Kyōyō Kurabu = Nihon no Dentō I-IV* (*Sōgetsu* cultural club =Japanese traditions), workshops to rediscover the beauty and aesthetics of Japanese music different from those of

asymmetrical time of *nōgaku* and the concept of *ma* by the sound of water drops while maintaining liquidity."[459] Kanze explained to Takemitsu that a good *ma* can be achieved by "natural," incidental timing, reflecting the aesthetic deriving from the Japanese respect for nature and its spontaneity. This idea can be seen in the Japanese saying, "*futo shita toki ni* (incidentally)," and how the *kanji* characters 自然 (nature) are used for the expression *futo*.[460]

Ma is often translated as empty space or silence; however, it is a living, active entity. The Japanese ethnomusicologist Satoaki Gamō (1983) explains that when the word *ma* is combined with prefixes, it refers to beats. For example, *omote-ma* and *ura-ma* means the first and second beat, respectively, and *ō-ma* and *shō-ma* indicates how fast or slow a beat should be felt in performance. A beat in *nōgaku* and *kinsei hōgaku* (music from the *Edo* period, such as *shamisen* music) is a point established by the action of hitting an instrument. When the word *ma* is used by itself, it refers to the length between two points.[461] During *ma*, the sound may be continued or discontinued, but the performer must maintain concentration to keep tension and momentum.[462] Hiroshi Minami (1983) asserts that *ma* in *nōgaku* is closely associated with the Zen values of tranquillity and spirituality.[463] In this music, performers use *ma* for sensing each other's breathing and adjusting subtle timings (the lengths of *ma*).[464] In the introduction to *The Ashgate Research Companion to Japanese Music* (2008), *ma* is explained:

Western music, given by Japanese traditional instrumentalists and ethnomusicologists. Takemitsu and Jōji Yuasa were keen participants, benefiting from these occasions.
[459] Takemitsu, "Programme Notes," 454.
[460] TōruTakemitsu, "Oto, Kotoba, Ningen (1980)," 196.
[461] Satoaki Gamō, "Nihon Ongaku no Ma," in *Ma no Kenkyū*, edited by Hiroshi Minami (Tokyo: Kōdan-sha, 1983), 140.
[462] Ibid., 145.
[463] Hiroshi Minami, "Introduction," in *Ma no Kenkyū*, 16-17.
[464] Ibid.

> *Ma* literally means a space or interval between two points (in space or time). It is used in the spatial discourse of painting and architecture, but in music it refers to rhythm (in *nagauta, uki-ma* implies a slight lengthening of the first of a pair of beats, while *tsume-ma* implies the reverse), or timing (many dancers say that with *kiyomoto* narrative music, *ma ga torinikui,* it is difficult to get the rhythm or timing right), or beat (*omote-ma* is downbeat and *ura-ma* is upbeat). In its sense as timing, it indicates the space in between sounds, the optimum length of a pause that provides maximum effect in either sound or movement. In this sense it is a crucial concept and technique for dancer, actors and percussionists in particular. (One *nō* performer called it *akuma no ma*—the devil's *ma.*) It is this meaning of timing that has become mystified as something which cannot be explained to the outsider, especially the non-Japanese outsider, and has conversely been the object of fascination by outsiders, who invoke it as a unique aesthetic to explain otherwise inexplicable aspects of Japanese performing arts.[465]

Here, *Omote-ma* and *ura-ma* are explained as downbeat and upbeat, respectively.[466] However, the validity of applying these Western terms is questionable since, as pointed out by the ethnomusicologist Fumio Koizumi, two beats in Japanese traditional music do not necessarily establish a strong-weak relationship.[467]

Takemitsu explains, "In music, *ma* is the duration of a pause in which a performer is waiting for the next sound to come without losing his/her concentration,"[468] and also, "to make the most of *ma* is to listen to many different sounds in it."[469] This idea resonates with John Cage's aesthetic of silence; however, *ma* and Cage's use of silence in *Haiku* and *Seven Haiku* are fundamentally different. Cage specified the duration of a silence with absolute time in *Seven Haiku*, whereas in Japanese aesthetics, the duration of a good *ma* cannot be measured scientifically and rationally.

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[465] Alison McQueen Tokita and David W. Hughes, "Context and change in Japanese music," in *The Ashgate Research Companion to Japanese Music*, edited by Alison McQueen Tokita and David W. Hughes (Aldershot: Ashgate Publishing Limited, 2008), 26.
[466] Ibid.
[467] Koizumi, 335-6.
[468] Arata Ishozaki, "B-Kyū Eiga no Koto wo Mōichido Hanashiaitai," ("I want to talk about B-rated films one more time") in *Takemitsu Tōru: Botsugo 10-nen, Narihibiku Image*, edited by Shigeo Wakamori (Tokyo: Kawade Shobo Shinsha, 2006), 22.
[469] Takemitsu, "Oto, Chinmoku to Hakariaeru hodo ni (1971)," 201.

The internationally renowned viola player Nobuko Imai considers *ma* the most important aspect in Takemitsu's music.[470] She asked the composer how long the performer was expected to wait to achieve a good *ma*. He replied, "If an intense concentration is maintained through a tranquil *ma*, the length can be either long or short. It is not about how long the performer should wait. If they feel like moving on to the next note, it will be appropriate to do so."[471]

The concept of *ma* made Takemitsu aware of the Japanese musician's attention to timbre that "arises during the time in which one is listening to the shifting of sound."[472] The composer became intrigued by this intricate relationship between time and timbre when collaborating with Japanese traditional musicians to compose *November Steps* for *shakuhachi*, *biwa*, and orchestra (1967):

> It is very hard to measure a shakuhachi note because when a shakuhachi player plays a long note there are so many changes in the harmonic spectrum, so I did not precisely specify all the note lengths, though all the pitches are specified.[473]

Takemitsu further experimented with this idea in *Shūteika* (*In am Autumn Garden*) for *gagaku* orchestra:

> In 1973, I composed *Shūteika* (the fourth piece of *Shūteika Ichigu*) for *gagaku* orchestra. The reason why I was motivated to compose for this fascinating material is that I thought *gagaku* is the most appropriate medium to reconsider some unresolved aspects (in my compositional process), i.e., time closely related to sound colours—tempi and issues regarding duration—and spatial changes of colours, and so forth.[474]

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[470] Nobuko Imai, "Takemitsu-san no Okurimono (A gift from Takemitsu)," in *Takemitsu Tōru wo Kataru 15 no Shōgen*, 88.
[471] Ibid.
[472] Takemitsu, "My perception of time in traditional Japanese music," 10.
[473] Tōru Takemitsu, Tania Cronin, and Hilarly Tann, 210. Prior to the *November Steps*, he first used Japanese instruments *chikuzen-biwa* and *koto* in 1962, writing for the NHK (*Nippon Hōsō Kyōkai*) (Japan Broadcasting Corporation) TV programme *Nihon no Monyō*. Soon after, he composed for the film *Seppuku* (1962), using *biwa*, alto flute, cello, and contra bass, one of Takemitsu's works that Cage heard during his visit in 1962. In another film *Kaidan* (1964), in addition to *biwa* and *kokyū*, he composed for *shakuhachi* for the first time. These experiences prepared him for composing *Eclipse* for *biwa* and *shakuhachi* (1966).
[474] Takemitsu, "Programme Notes," 411.

The Japanese performers' attention to timbre is apparent in their appreciation for *sawari*. Malm explains that *sawari* is one of the most significant characteristics of *biwa* playing: the *biwa*'s long elastic string produces a "twangy" sound, and *sawari* is this tone amplified by the body of the instrument.[475] The neck of *shamisen* is constructed to imitate the *sawari* sound of the *biwa*, and the *shamisen* produces much stronger reverberation (*sawari*) than *biwa* because of its well-designed mechanism.[476] Mitsuko Ōno (2008) states that *sawari* is non-musical sound:

> *Sawari* is a sound rich in reverberations. It is a delicate, complex sound.…When one hears it close to a player (listen to the sound of a *shamisen* player tuning up), its delicate and complex sound is very surprising. Many sounds are contained in one sound. It is one sound but the reverberation contains many sounds simultaneously. I had heard *shamisen* music on the radio and at the theatre. However, when I heard it close to the player, I noticed this sound. Moreover, the overtones of a *shamisen* sound are complex because three strings resonate at the same time, and it is perceived as a sound near noise, or unpitched sound. *Sawari* relates to overtones. So, *sawari* is a useful sound for tuning. If the player does not tune the instrument well, he or she does not produce this *sawari* sound. It is said between players, "if a person can get a beautiful *sawari,* he or she might be a master." [477]

Takemitsu quotes a description of the ideal sound of the *sawari*: "In *gidayu,* the *shamisen*'s timbre should be delicate, yet *sawari* ought to be as brazen as the sound of a cicada singing."[478]

Ōno argues that Takemitsu's music adopts the aesthetic of *sawari* not only in *November Steps*, but also in the works written for Western instruments. She considers that his indications *dying away* and *very spatially* in *Rain Spell* for chamber ensemble

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[475] Malm, 156.
[476] Ibid., 156, 215.
[477] Mitsuko Ōno, "Tōru Takemitsu and the Japanese Sound of Sawari," in *Music of Japan Today,* edited by Michael Richards and Kazuko Tanosaki (Newcastle: Cambridge Scholars Publishing, 2008), 69.
[478] "Tōru Takemitsu, on Sawari," in *Locating East Asia in Western Art Music*, edited by Yayoi Uno Everett and Frederick Lau (Middletown: Wesleyan University Press, 2004), 201; *Joruri Haya –gaten* (*Onkyoku hanakenuki)* accessed on 4 May, 2012. *Onkyoku hanakenuki* is a book of *shamisen* music from the *Kansei* period (1789-1800). <http://www.oneg.zakkaz.ne.jp/~gara/ongyoku/jouhou25.htm#b09>

(1982), *let ring* in *Riverrun* for piano and orchestra (1984), and *al niente* in *Lex yeus clos II* for piano (1988) are the signs of Takemitsu's assimilation of *sawari*.

The Japanese attention to timbre is compatible with the Japanese emphasis on the now and the negation of an objective flow of time.[479] During *ma*, the performer is expected to concentrate on the *now* (not on the continuity and objectively observed lengths of rhythm) and to listen to changes of colours. In this, it is also possible to locate the Japanese understanding of time as an immeasurable entity. The time that exists during *ma* is not scientifically measured, *spatialised* time, but subjective, *experienced* time.

5.2 *Rain Tree Sketch*

5.2.1 Editions of *Rain Tree Sketch*

There are three editions of *Rain Tree Sketch* in which the tempo markings differ considerably.[480] The first edition, published by Schott Japan in 1982, gives the metronome marking for Tempo II as one quaver = two semiquavers = 84~80.[481] In the second edition, published in 1989, the metronome marking is one quaver = two semiquavers = 85~96. The third edition, published in 1990, gives one quaver = two semiquavers = 100~108. A handwritten comment on a copy of the second edition, kept in the Schott Japan Tokyo office, also records "a quaver = two semiquavers = 100~108." The Japanese pianist Aki Takahashi, consulting her copy of the

[479] Cf. see Chapter 1 for the importance of the now in Zen, especially in Dogen's concept of time.
[480] In the first edition, moderate accents on G# and F at m. 7 and two *mf* at m. 27 are missing.
[481] It is archived in *Nihon Kindai Ongakukan* (Archives of Modern Japanese Music) belonging to *Meiji Gakuin* University in Tokyo.

manuscript, claims to have pointed out these differences.[482] As the publication of the third edition was made before Takemitsu's death in 1996, the change could have been made on his instruction. The differences in the three editions may be factors influencing the interpretations of the pianists whose recordings are discussed in Chapter 6.

5.2.2 Construction of Cyclic Time in *Rain Tree Sketch*

In *Rain Tree Sketch*, Takemitsu's image of "circulating water in the cosmos" is expressed through cyclic repetitions of motif and pitch-class sets, rhythmic patterns evocative of the "*jo-ha-kyū*" and "heterocyclic time," asymmetric rhythmic construction, and a formal design that is similar to the circular path of the Japanese garden.

In the first 6 measures, Takemitsu introduces a motif A-G#-E-F (Figure 5.2) and pitch-class sets [0, 3, 4] and [0, 1, 6]. The latter, the pitch-class set of a sea-motif (E flat-E-A) frequently used in his water-themed works, is evocative of "circulating

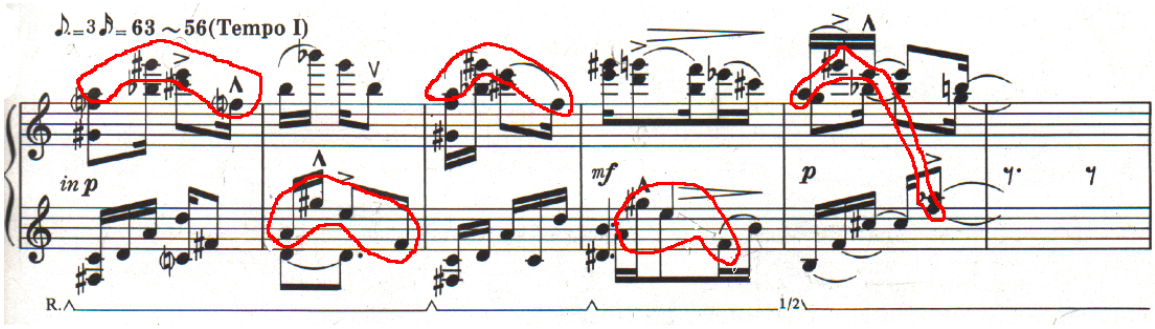

Figure 5.2. *Rain Tree Sketch* mm. 1-6 motif (a) A–G♯–E–F [0, 1, 4, 5] ©1982, Schott Music Co. Ltd., Tokyo. Reproduced by permission of Schott Music Ltd. All rights reserved

[482] Aki Takahashi, "Ensemble Takemitsu ga Kataru Gakuhu no Mukou Gawa (The other side of scores spoken by Ensemble Takemitsu)," in the liner note of *Takemitsu Tōru Hibiki no Umi: Shitsunaigaku Zenshū* (Tōru Takemitsu Resonant Sea: Chamber Music Complete Edition Vol. 1), 21, Kings Record, KICC 581. She states that this music should be performed flowingly like how his writing in the manuscript appears.

water" in this piece.[483] Along with the inversion [0, 5, 6], these are cyclically repeated throughout out the piece (Figures 5.3 and 5.4). Another cyclically repeated pitch-class set [0, 3, 4, 5] differs by only one pitch-class content from the pitch-class set [0, 1, 4, 5] of A-G#-E-F (Figure 5.5). The use of cyclic repetitions can be considered a

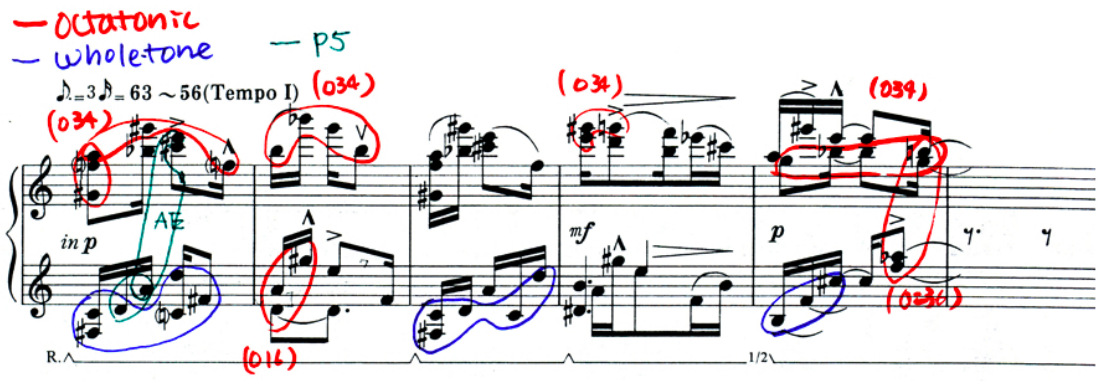

Figure 5.3. *Rain Tree Sketch* mm. 1-6, pitch-class sets [0, 3, 4] and [0, 1, 6] ©1982, Schott Music Co. Ltd., Tokyo. Reproduced by permission of Schott Music Ltd. All rights reserved

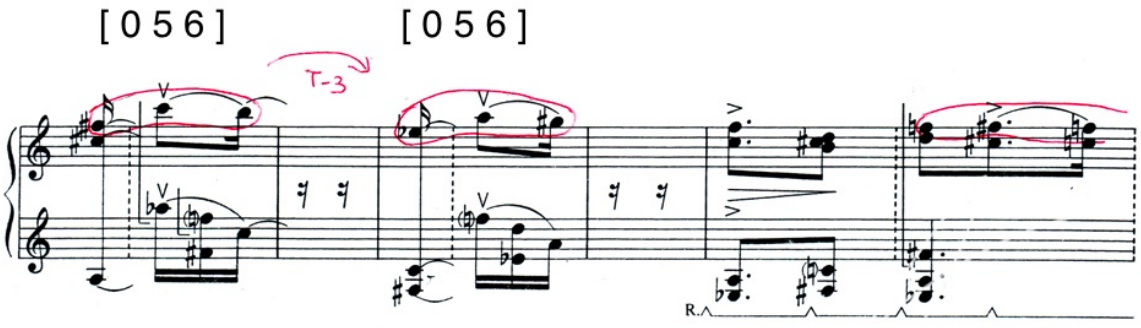

Figure 5.4. *Rain Tree Sketch*, mm. 16-18, pitch-class set [0, 5, 6] ©1982, Schott Music Co. Ltd., Tokyo. Reproduced by permission of Schott Music Ltd. All rights reserved

reference to the Japanese cyclic time; it is also reminiscent of Debussy's "Reflets dans l'eau" from *Image* Book I (1905) in which a three-chord motif in different registers

[483] This pitch-class set [0, 1, 6] frequently appears in his water-themed works as the SEA motif (E flat-E-A), the symbol of water. In the programme note for *Umi e* (To the Sea) (1981), Takemitsu discusses his use of the sea motif. See his "Programme Notes," 393.

depicts concentric ripples (Figure 5.6) and "Pagodes" from *Estampes* (1903), a work alluding to the gamelan music that he heard during the *Exposition Universelle* in 1889.[484]

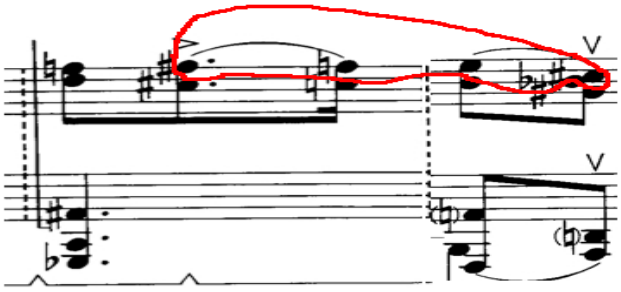

Figure 5.5. *Rain Tree Sketch*, m. 20, motif (b) F–F♯–E–C♯ [0, 3, 4, 5] ©1982, Schott Music Co. Ltd., Tokyo. Reproduced by permission of Schott Music Ltd. All rights reserved

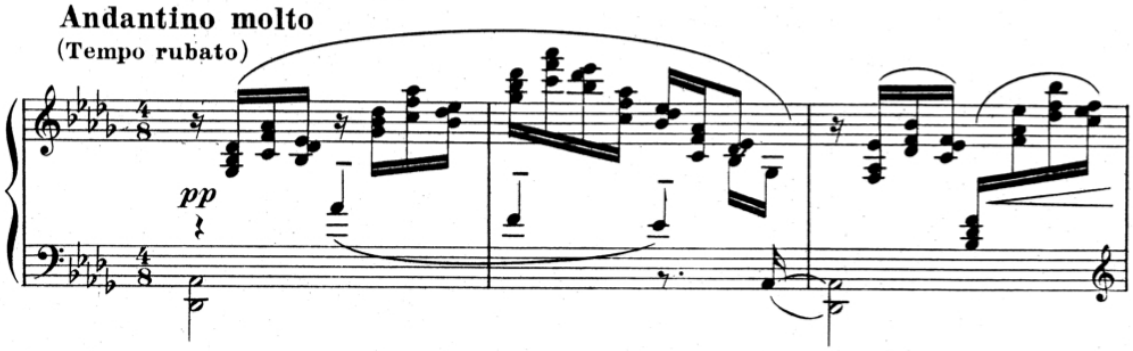

Figure 5.6. Claude Debussy's "Reflets dans l'eau" mm. 1-3

[484] Long, 25. The composer described the image of this music as "A little circle in water with a little pebble falling into it." Takemitsu was greatly influenced by Debussy. He first heard the French composer's music through the American Forces radio network WVTR during the American occupation of Japan after the WWII, and "intuitively fell in love with" it (see Takemitsu, Tania Cronin, and Hilary Tann, 206-7). Japanese composers and intellectuals from a generation before Takemitsu had recognized the affinity between the music of Debussy and Japan in terms of sensitivities to sound. His compositions were considered a model of how to combine Western and Eastern qualities (see Hitomi Sano, "Debussy to Nihon Kindai no Bungakusyatachi," in *Nichi-Futsu Kokan no Kindai*, edited by Hitoshi Usami [Kyoto: Kyoto Gakujyutsu Syuppankai, 2006], 384-6.) Takemitsu acknowledges that he was interested in Debussy's technique of displaying multiple aspects of sound—what Takemitsu called "pan-focus" (see Takemitsu, "Yume to Kazu," 28). "Pagodes" displays the most obvious example of the "pan-focus": on a perfect fifth (B-F#) in a low register, other layers are juxtaposed. A similar texture frequently appears in *Rain Tree Sketch* (e.g., mm.38-40).

In *Rain Tree Sketch*, Takemitsu uses a rhythmic pattern which evokes the concept of *jo-ha-kyū*. This can be seen in the acceleration towards a climax at m. 35 (the first *Senza misura*). After this, the music stops, and starts again softly (Figure 5.7).

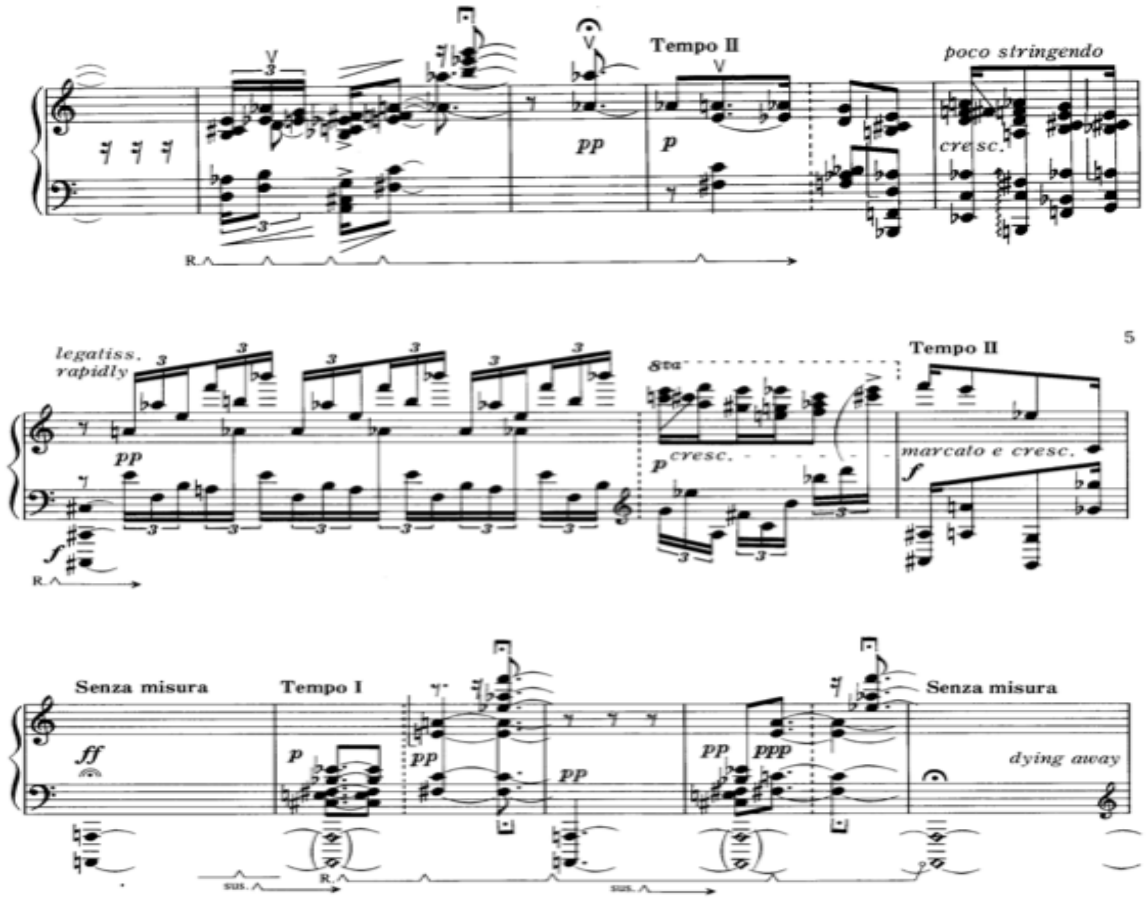

Figure 5.7. *Jo-ha-kyū* in *Rain Tree Sketch* mm. 33-35 (the excerpt is mm. 29-39)

"Heterocyclic time," the idea that Takemitsu was inspired from the different life cycles of plants in a Japanese garden, can be seen at m. 40 in which the right hand plays a passage consisting of 10 semiquavers and the left hand 8 semiquavers (Figure 5.8). These two passages are cyclically repeated, 5 times for the right-hand and 5 times plus one uncompleted cycle for the left-hand, but their beginnings do not align.

This is reminiscent of the different beginnings in “Texture” in which the idea of “heterocyclic time” is explored.

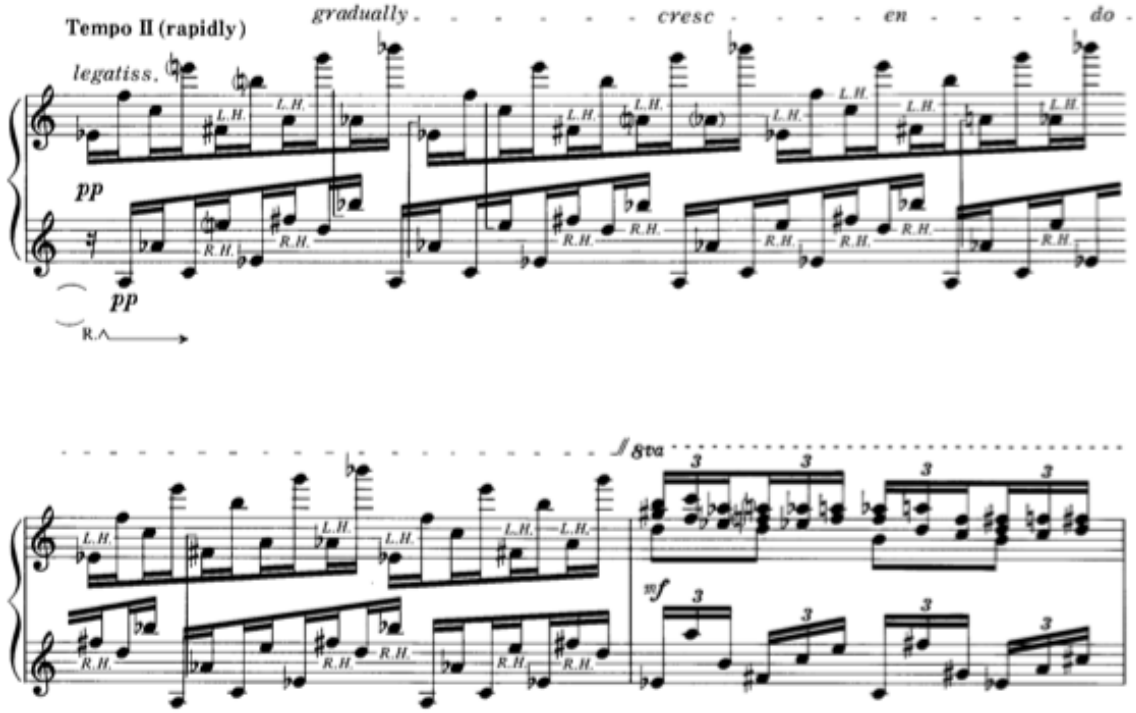

Figure 5.8. “Heterocyclic time” in *Rain Tree Sketch* m. 40 ©1982, Schott Music Co. Ltd., Tokyo. Reproduced by permission of Schott Music Ltd. All rights reserved

The rhythmic construction of the work illustrates the Japanese preference for asymmetry and odd numbers. There are no two consecutive measures of the same length throughout the entire piece. This becomes apparent from the opening 6 measures: m. 1 lasts for the duration of six semiquavers, while m. 2 for five semiquavers. These 6 measures are divided into three two-measure units, and there are 11 semiquavers in one (two-measure) unit (Figure 5.2). Throughout the piece, Takemitsu avoids the number 4: there is no single measure that consists of 4 semiquavers.

In Japanese aesthetics, the number 4 is considered unlucky because its pronunciation, *shi*, is the same as the pronunciation of the Japanese word for death.[485] The composer might have eliminated the number 4 as the work depicts a rain tree as a symbol of life. This may relate to the composer's inclination to find symbolic meanings in specific numbers: he wrote that he dealt with numbers quite intuitively, not mathematically, and that the numbers underlying the basic structure give cosmological meanings to his music.[486] For example, Takemitsu discusses how the number 5 became an underlying concept in *A Flock Descends into the Pentagonal Garden* (1977), after having a dream about a single black bird leading a flock of white birds into a *pentagonal* garden.[487] In *Quatrain* for clarinet, violin, cello, piano, and orchestra (1974-5) the number 4 forms the basis of the musical idea, and in *Orion* for cello and piano the number 3 underlies the musical idea. In *Rain Tree Sketch*, the rhythm produced by the combinations of odd numbers also negates the establishment of the steady beats created with the number 4, the number associated with the symmetrical phrase structure of classical music.

The formal design of the work may display the composer's plan to communicate the concept of cyclic time (Table 5.1). The form of *Rain Tree Sketch* can be regarded as the traditional ABA form because of the return of the same material from mm. 7 to 20 at mm. 47-60; however, the music does not exhibit the thematic contrast expected in the classical ABA form.[488] Throughout the piece, the pitch-class sets [0, 1, 3, 5] and [0, 3, 4, 5] are used. Before the return of the opening material at m. 47, the pitch-class set [0, 3, 4, 5] is played as B flat-B- A-F #, preparing

[485] Yutaka Nishiyama, "A Study of Odd- Even- Number Cultures," *Bulletin of Science, Technology & Society* 26, no. 6 (December 2006): 2.
[486] Takemitsu, "Yume to Kazu (1984)," 23.
[487] Takemitsu, "Yume to Kazu (1984),"15-47.
[488] Isshiki considers that *Rain Tree Sketch* is in ABA form; however, she does not point out the absence of thematic contrasts in the work. Isshiki, 89.

a smooth transition to the motif A-G#-E-F. The entire formal scheme portrays a gradual change of scenery (Figure 5.9). This seems to allude to a circular path in a Japanese garden in which the stroller comes back to the starting point without noticing it.

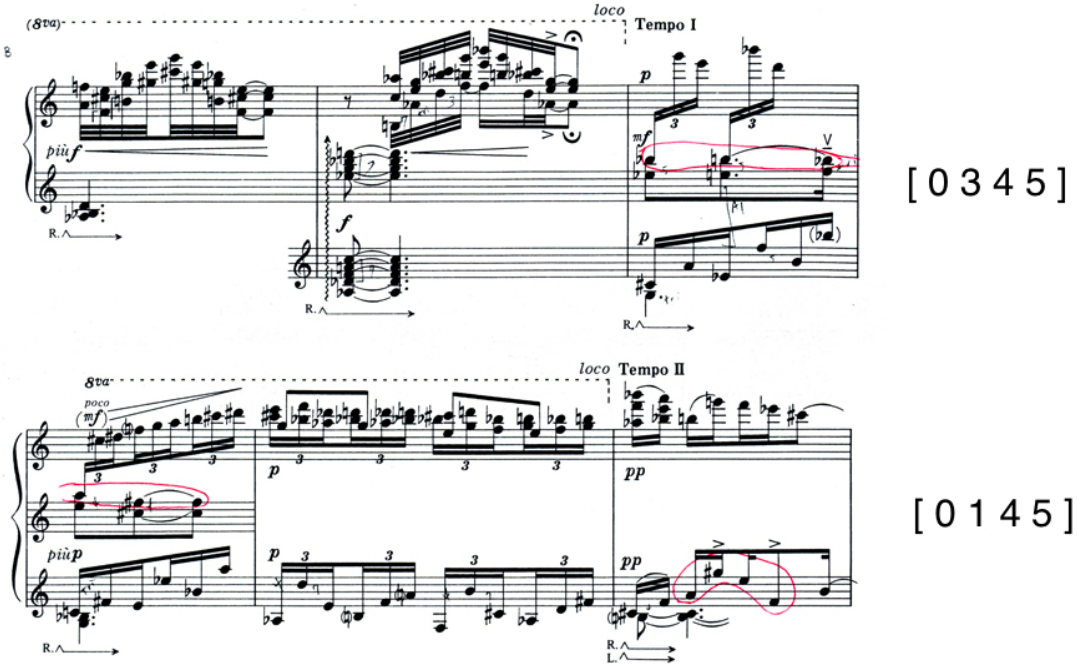

Figure 5.9. *Rain Tree Sketch* mm. 42-47 ©1982, Schott Music Co. Ltd., Tokyo. Reproduced by permission of Schott Music Ltd. All rights reserved

mm.	1–6	Introduction
	7–20	A
	21–46	B?
	47–60	A
	61–65	Coda

Table 5.1. Formal design of *Rain Tree Sketch*

5.2.3 Concept of *Ma* in *Rain Tree Sketch*

In *Rain Tree Sketch*, the most obvious example of Takemitsu's use of *ma* can be seen in his use of fermata. He uses three fermatas of different lengths: short fermatas at mm. 29, 36, and 38; the medium ones at mm. 30, 39, and 63; and long

ones at m. 35 with the indication *Senza misura* and m. 64, the very last measure, with the indication "dying away" (Figure 5.7). In an interview, he referred to his use of fermatas:

> I have rhythm-deafness, and it makes my music tempo-less. When I sing a melody, my tempo is different every time. I think, "This one is good but the other is good, too." I cannot decide the best tempo. If I decide it, I start to feel that it is not right. That's why I recently started to use fermatas and let the performer decide its length as they wish. Basically, if they are good musicians, I can let them do their work. The worse the conductor is, the more he is obsessed with a metronome marking and plays like a metronome. Good conductors don't get caught up with it. They consider the expression of the whole music and conduct it. I don't need to indicate a metronome marking meticulously. Bach's music doesn't have any indication; however, the music itself demands expression. I have recently understood that that is good enough.[489]

Unlike Crumb who specifies an approximate length of a fermata with absolute time, Takemitsu leaves the duration of *ma* to the performer's discretion. His willingness to collaborate with the performer is compatible with the aesthetic of *ma*.

Ma and the concept of immeasurable time seem to have influenced Takemitsu's sense and notation of rhythm and tempo. In the programme note to *Piano Distance* (1961), Takemitsu comments on interpretation of his notation: "Two notes, which visually appear to be equal in length, should be interpreted as two individual notes different from each other by the performer."[490] He explained his ideas of rhythm in performance in an interview with Takashi Tachibana in 1992: "I don't want my pieces to be performed with the traditional Western sense of rhythm." Takemitsu criticizes Raphael Frühbeck de Brugos for conducting a rehearsal of *Fantasma/Cantos* for clarinet and orchestra (1991) with regular, strict rhythm, commenting that the conductor neglected or did not follow his marking *con rubato*, by which he intended

[489] Tachibana, "Takemitsu Tōru Sōzō, 6," 273.
[490] Takemitsu, "Programme Notes," 431.

"beats with unequal length."[491] During the interview, Takemitsu counted in German, "ein, zwei, drei," imitating the conductor, perhaps a comment by Takemitsu on the *German* traditional sense of rhythm.[492]

In *Rain Tree Sketch*, there are two tempi: Tempo I (a dotted quaver = 3 semiquavers = 63~56) and Tempo II (a quaver = 2 semiquavers = 100~108). As Takemitsu states in the quotation above, he does not indicate a metronome marking "meticulously." Possibly this suggests that the length of 3 semiquavers in Tempo I and 2 semiquavers in Tempo II should fluctuate between these two speeds, instead of having a steady rhythm fixed to a specific speed. Or it may be that Takemitsu gives the performer liberty to choose a speed between these numbers, or perhaps he himself could not decide the best tempo because of his "rhythm-deafness." Whatever the reason, metronomically precise rhythm and tempo would not produce the effect Takemitsu desired.

Takemitsu's attention to timbre can be seen in his use of fermatas during which both performers and listeners keep listening to the decaying sound. The exploitation of three different types of accents and short slurs also contributes to subtle timbral differences, and it is important for the performer to carefully observe these markings: Richard Stolzman heard Takemitsu telling orchestra members at the rehearsal for *Fantasma/Cantos* to practice until they could properly respond to all his markings affecting timbre.[493] Takemitsu's ambiguous metronomic markings may be an indication that he expected rhythm and tempo to be flexible, allowing the

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[491] Tachibana, "Takemitsu Tōru Sōzō, 6," 275-6. Despite his claim, *con rubato* is not indicated in the published score. The indication *con rubato* does appear in *Litany*, one of the only two piano pieces written with metre. The other piece is "A song of Love," the third movement of *Uninterrupted Rests* (1952-1959).
[492] Ibid., 275-6.
[493] Richard Stolzman, "Takemitsu-san no Kotoba wo Tsutaeru Dendōshi," in *Takemitsu Tōru wo Kataru 15 no Shōgen*, 339.

performer time to listen to subtle timbral changes. Ōno argues that Takemitsu's indications *dying away*, *very spatially*, *let ring*, and *al niente* all direct the performer to listen attentively to "the sound of reverberation," as the Japanese musicians do. This, she argues, affects the tempo of a piece.[494]

In *Rain Tree Sketch*, the image of cyclic time is expressed by the pitch contents, the rhythmic constructions, and the formal design. But the performer's culturally informed interpretation of the composer's rhythmic notation also plays an important part in evoking nonlinear time in the listener's perception. This will be furthered explored in Chapter 6.

5.3 The Sketches and Manuscripts

5.3.1 *Rain Tree Sketch II –In Memoriam Olivier Messiaen*

Rain Tree Sketch II –In Memoriam Olivier Messiaen (1992), the final work of the *Rain Tree* series was composed for the concert 'Hommage à Olivier Messiaen' of *Les Semines Musicales Internationales d'Orléans* in France.[495] Takemitsu first encountered Messiaen's music through Toshi Ichiyanagi, who owned a score of Messiaen's *Préludes* for piano (1928-1929).[496] The second movement "Lento misteriosamente" from Takemitsu's *Lento in due movimenti* (1950) exhibits Messiaen's influence both in his use of the mode II of Messiaen's "mode of limited transposition" and in the texture which resembles that of "La Colombe," Messiaen's

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[494] Ōno, 72.

[495] Although the score that I own (the sixth print of the first edition, published in 2001) states that it was premiered by Alain Neveux on October 24, 1992, Aki Takahashi states that she premiered it a couple of days earlier than the concert in France at her own music concert series *Atarashii Mimi Series* (New Ear Series) in Yokohama, Japan. This was indicated in the first edition published in 1992 but deleted in later prints. See Aki Takahashi, "Ensmble Takemitsu ga Kataru Gakuhu no Mukōgawa," (The liner note of *Takemitsu Tōru Hibiki no Umi:Shitsunaigaku Zenshū* 1), 21-2.

[496] Tachibana, "Takemitsu Tōru 5," 224-5.

first prelude.[497] *Rain Tree Sketch II* displays the influence of Messiaen in the use of the high register, resonating with the bell sounds as explored in one of the *Préludes*, "Cloches d'angoisse et larmes d'adieu," and the counterpoint writing in the section marked "Joyful," a compositional technique seldom used by Takemitsu.[498] The form of *Rain Tree Sketch II* is similar to that of *Rain Tree Sketch*: the opening introduction returns after the "Joyful" section.

The manuscript shows evidence of how Takemitsu dealt with numbers and how this can be reflected in one's interpretation. The eight-bar opening section, marked "Celestially Light," with *poco riten.* indicated at mm. 3 and 7 is open for different possibilities as regards to phrasing. It can be performed as a single idea or divided into several short phrases, the option being 3 + 2 + 3, 3 + 5, or 5 + 3. Takemitsu extended staves on the manuscript so that he could fit these five measures in one line without division, suggesting that the phrase structure he had in mind was 5 (3 + 2) + 3; thus the first *poco riten.* This again demonstrates Takemitsu's preference for asymmetry and odd numbers (Figure 5.10).

The manuscript also exhibits how Takemitsu uses *ma* to express emotions that the sound cannot communicate. It shows that a measure immediately after m. 24 (marked *poco riten.*) in the section marked "Joyful," has been crossed out (Figure 5.11). (This measure was deleted in the published score.) The manuscript shows a triad A-E flat-F in the treble clef and another triad C-D-F# in the bass clef, sustained for the duration of one dotted quaver plus one quaver (Figure. 5.12). If this measure is included, the phrase sounds more complete and has a sense of arrival. Presumably, Takemitsu deleted the measure in order to emphasize discontinuity and weaken the

[497] This passage is deleted in Takemitsu's *Litany*, the re-composition of the *Lento in due movimenti*, suggesting Takemitsu's self-consciousness of his youthful writing.
[498] Counterpoint writing also appears at mm. 14-20 in the "Cloches d'angoisse et larmes d'adieu."

sense of direction, and to hint at the feeling of unsettlement. This increases the performer's responsibility to evoke a feeling of remembrance by handling this abrupt transition with a good *ma*.

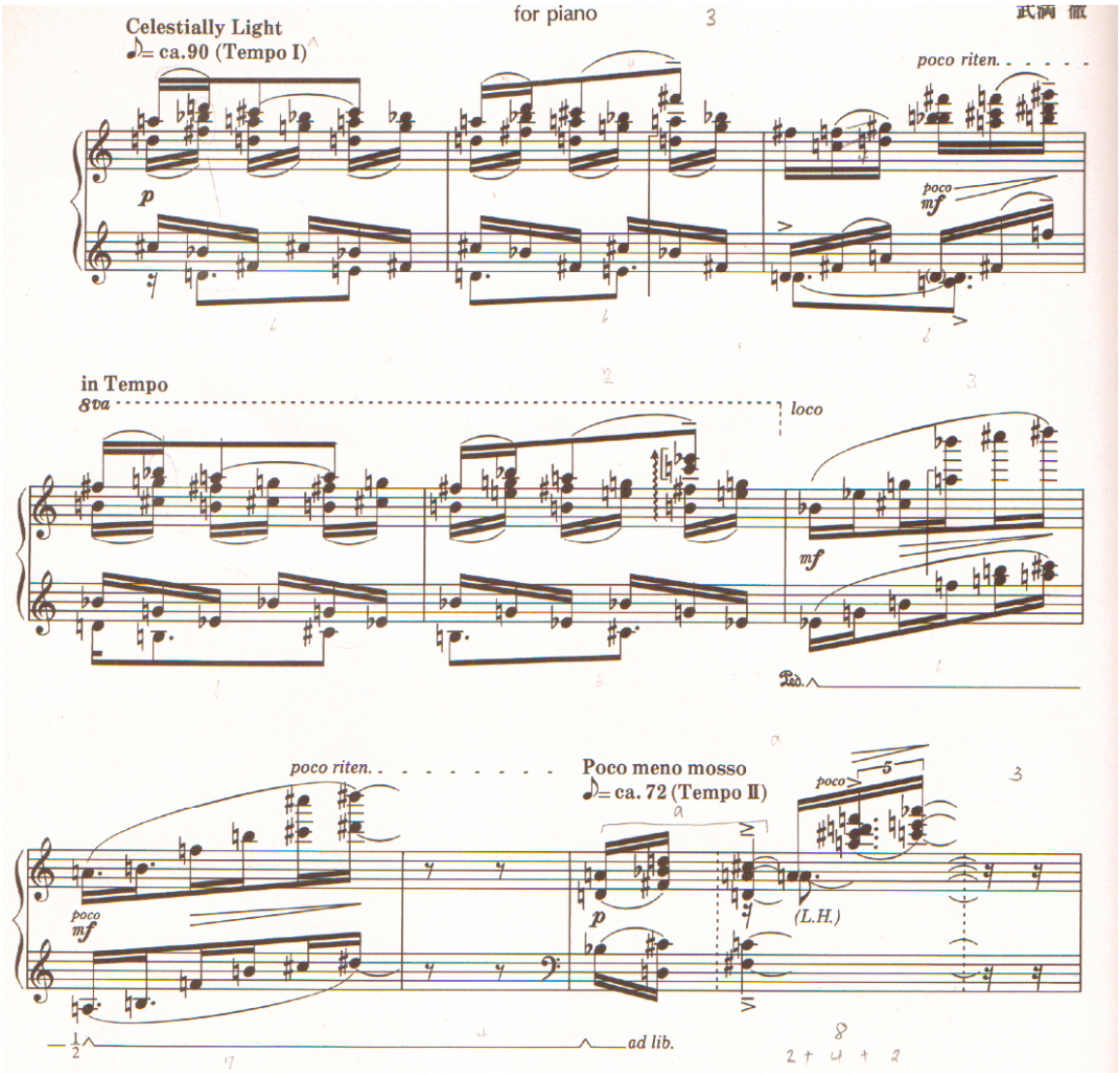

Figure 5.10. *Rain Tree Sketch II* mm. 1-8 ©1992, Schott Music Co. Ltd., Tokyo. Reproduced by permission of Schott Music Ltd. All rights reserved.

Takemitsu's handwritten slurs and dynamic markings give clues to the performer about what to listen for during *ma*. In the published score, *più p* is placed at m. 32, and a short slur after G# at m. 31 ends before a dotted bar line (Figure 5.13), whereas, in the manuscript, the slur is extended over a quaver rest after a dotted bar line, and *più* is written before the bar line between mm. 31-32. The handwritten

notation visually communicates the aesthetic of *ma*, signifying that the performer should keep listening to the decaying sound until the start of the next note. In Takemitsu's music, rests do not mean the absence of activity or sound because *ma* is a living, active entity.

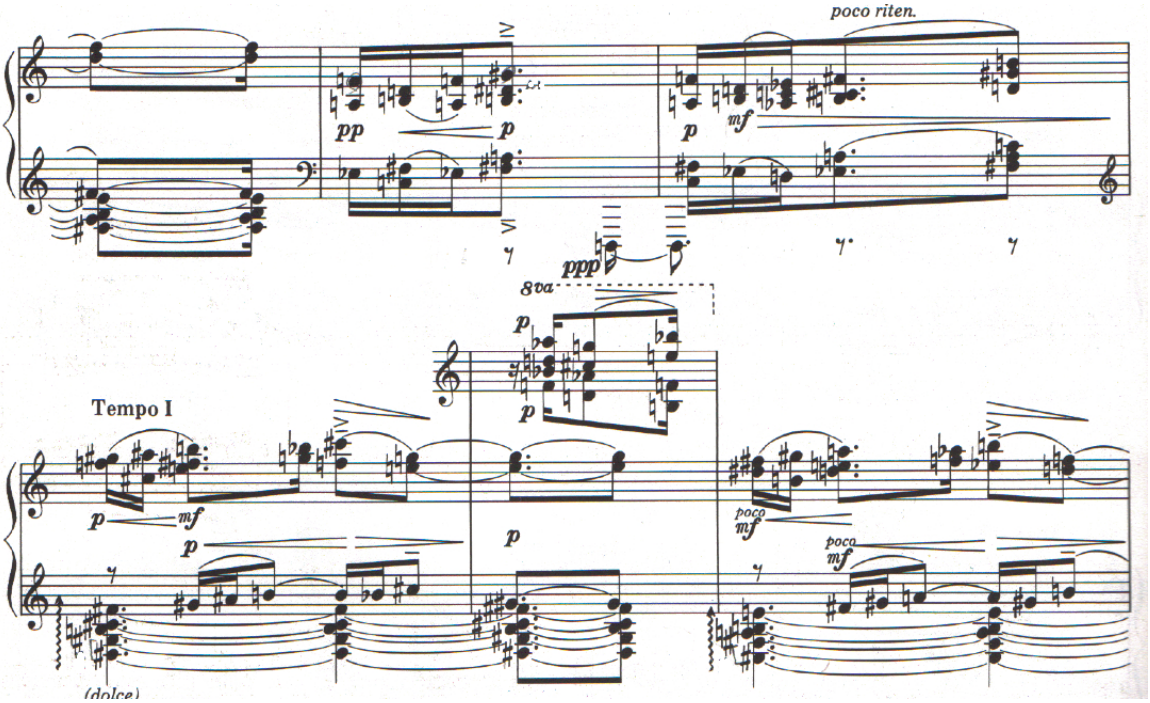

Figure 5.11. *Rain Tree Sketch II* mm. 22-27 ©1992, Schott Music Co. Ltd., Tokyo. Reproduced by permission of Schott Music Ltd. All rights reserved

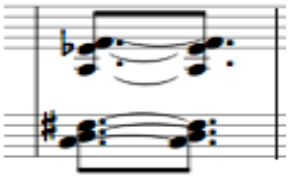

Figure 5.12. Crossed-out measure after m. 24

Aki Takahashi, who premiered *Rain Tree Sketch II*, provides useful guidance for understanding Takemitsu's notation and sensitivity to timbre. At a coaching session, Takemitsu asked her to play each note under a short slur "super legato," as she would play a short phrase.[499] In her recording, Takahashi markedly slows down at m. 10 where there is a slur on A on the right hand and a *tenuto* shown on the last note C,

[499] Takahashi, 22.

thus suggesting she regarded short slur markings as affecting tempo as well as articulation and colour[500] (Figure 5.14). The slowing down of tempo from mm. 9-11, marked "Poco meno mosso," and the picking up of tempo again at m. 12, marked "Slightly slower," is in contradiction to the score, so it may be that Takahashi was following Takemitsu's wishes as he had expressed them to her.

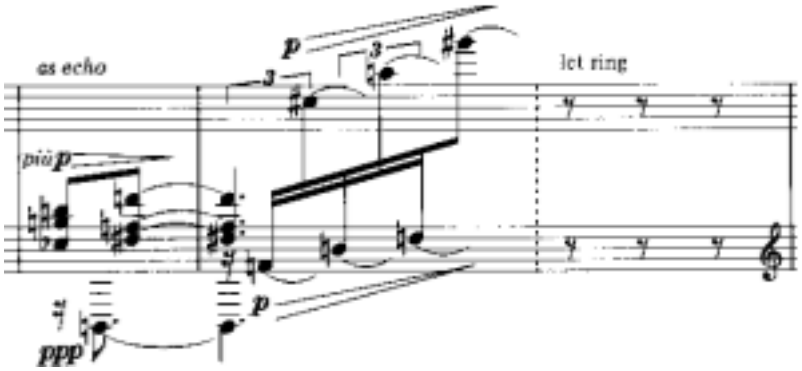

Figure 5.13. *Rain Tree Sketch II* mm.31-32 ©1992, Schott Music Co. Ltd., Tokyo. Reproduced by permission of Schott Music Ltd. All rights reserved

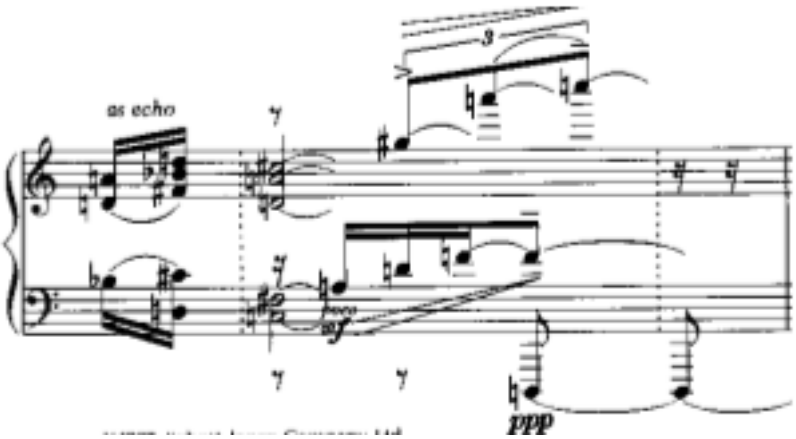

Figure 5.14. A tenuto on C in *Rain Tree Sketch II* m. 10 ©1992, Schott Music Co. Ltd., Tokyo. Reproduced by permission of Schott Music Ltd. All rights reserved

5.3.2 *Orion* for Cello and Piano

Orion for cello and piano (1984) was commissioned by Österreichischer Rundfunk (ORF) and premiered by Florian Kitt (cello) and Harald Ossberger (piano)

[500] Idem, "Rain Tree Sketch II," Kings Record, KICC 581.

in Vienna on 21 March 1984.[501] In *Orion*, the number 3, which is an underlying concept in both the pitch and rhythmic construction, symbolizes the three stars in the Orion's belt.[502] The formal design of *Orion* is similar to those of *Rain Tree Sketch* and *Rain Tree Sketch II*: the opening material recurs at m.78.

In pitch construction, the number 3 is apparent in the interval of thirds and triads. The chord after the octave at m. 1 consists of two triads, a G# minor chord and the first inversion of D major. The repeated motif F-C-A-A flat, first appearing at m. 10, contains a triad and an augmented first/a minor second. At m. 12, this is combined with another motif A-E-F-C, consisting of two perfect fifths and two triads, A minor and F major. These cyclically repeated motives, alluding to the three stars of Orion's belt, stand out from the texture.[503]

The prominence of the number 3 in the rhythmic construction is apparent from the opening. At m. 1 Takemitsu notates 3+3+3+2 in parenthesis next to the time signature 11/8. At m. 2, he writes 3+3+3 next to the time signature 9/8 and the chord in the piano part is often placed at the third beat, e.g., mm. 2-3, 4 (an octave in this case), 5 and 7. At m. 74 the pianist plays the octave after the cellist plays three dyads.

The sketch indicates how Takemitsu struggled with organizing musical time

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[501] "Orion," the first movement of *Orion and Pleiades* (1984) for cello and orchestra, is the orchestrated version of *Orion* for cello and piano.

[502] The manuscript for *Orion* hints at another possible meaning for the importance of the number 3. The last phrase possibly refers to Ludwig van Beethoven's famous "Moonlight" sonata, op. 27, no. 2.[502] In this work, the number 3 is also exploited in his use of triads and triplets throughout the piece. The connection between *Orion* and the sonata derives from a rather simple reason: *Orion* was originally commissioned by Österreichischer Rundfunk (ORF) and premiered in Vienna. In the published score, Takemitsu did not use the phrase "Lento: quasi una fantasia"; however, his indication *con fantasia* at m. 3, and the naturals indicated next to both Cs (octave) at m. 1 further suggest affinity between *Orion* and the "Moonlight" Sonata.

[503] He uses a similar technique and texture in another star-themed work *Star-Isle* for orchestra (1982) written for the 100th anniversary of Waseda University. He creates the motif A flat-E-D-A, consisting of a augmented fifth and a perfect fifth. These pitches were taken from the name of the university (wASEDA).

and finding the right tempo for his work. In the printed score, the time signature of the first measure is 11/8, but in the sketch, was first 9/8, later changed to 11/8, possibly implying Takemitsu's idea of heterocyclic time in which two different times coexist. Similarly, he modified tempo and metronome markings several times. In the published score, the tempo marking is "Tranquilly Slow." However, three phrases appear in the written sketch: "entirely rubato," "Tranquilly slow, entirely rubato," and "(3) Lento: quasi una fantasia." Here, his use of the word "rubato" is worth noting. In his other works, he notates *rubato* where he wishes to communicate his idea of "non-Western" rhythm.[504] This might be applicable to the rhythmic sense of *Orion.* It seems that Takemitsu considered five possible metronome markings: a quaver = 96~100, a quaver =96~88, a quaver=92~84, a quaver=80~76, and a quaver nearly =104~100 (notated in parenthesis). The published score gives the metronome marking finally chosen as a quaver = Approx. 100 ~96. A performer should be reminded that a quaver =100 is the fastest of the five metronome markings considered by Takemitsu: a tempo could be slower than a quaver =96 occasionally but, in order to maintain the character "Tranquilly Slow" specified by the composer, never faster than 100.

5.4 Case Study: How Does *Ma* Work Between Two Performers?

The expression of *ma* in ensemble playing poses a challenge for the performers. Although the number 3 is the unifying element in Takemitsu's rhythmic construction in *Orion*, because of the ambiguous rhythms and *ma*, the rhythmic impulse in performance is barely perceptible to a listener without the visual aid of a score. As an illustration of this, I worked on *Orion* with cellist Marta Albright. A native of Brazil, Marta has had no previous exposure to *ma*. Recordings were kept of

[504] See the discussion of his *Fantasma/Cantos* earlier in the chapter.

our practice and performance sessions, and rehearsal diaries were also kept. These provide materials to consider how *ma* can work between two performers.

In *Orion*, rhythmic ambiguity is created with long sustained notes, rests, frequent tempo fluctuations, and sliding sounds in the cello part. Metres organize musical time; however, sensing a beat and establishing a tempo at the beginning of the piece is challenging for the cellist as the pianist plays only an octave and two long sustained chords in the first two measures. Initially, the pianist can count aloud to coordinate timings. Later this problem can be solved by the pianist's pedalling: releasing a damper pedal at the ninth beat at m. 1 and the eighth beat at m. 2 help the pianist indicate beats and tempo. At m. 8, the cellist is directed to use a slide with the indication *dal niente*, avoiding a clear beginning in the cello part. Depending on the cellist's timing of starting the slide, a clearly defined, pitched sound could fall between two beats. Thus, the alignment of the beat between the piano and cello parts is not exact. This rhythmic approach is diametrically opposed to the ensemble playing expected in the classical musical repertoire in which synchronized rhythm and harmony is the norm. Takemitsu's aesthetic of rhythm is thus a distinctive element in the interpretation of his music.

Counting aloud can solve the rhythmic complexity at the initial stage but becomes problematic in places where the two parts have different rhythmic divisions, e.g., at m. 27 (the cello has the rhythmic division of 3+3+2 whereas the piano has 2+2+4). Furthermore, metrically strict playing would not allow the performers to follow all the dynamic markings that Takemitsu meticulously indicates. The note in the rehearsal reads:

> Since the cello part has a lot of leaps, paying attention only to notes and rhythm did not help to put things together. It was easier to play with a flow than a strict counting…. It was good to count strictly at first, but we decided not to count,

> but to listen to each other and to give cues to each other so that we know where our downbeat is.

The keyword here is "not to count, but to listen to each other." The most important factors in deciding the right timing to finish or start a phrase are the speed of the sound decay and the attention paid to each other's playing. For instance, at m. 27, if the cellist played the dotted rhythm strictly in tempo and kept the dynamic level at *mf*, it would not give enough time for a piano sound to decay before the cello's semiquaver (Figure 5.15). Since the sound requires time to decrease its volume, tempo needs to fluctuate slightly. If the cellist carefully observes the *decrescendo* indicated under the E and plays the C as part of the *decrescendo*, the alignment with the pianist will work more naturally and effectively. In Takemitsu's sketch, the tip of the *decrescendo* goes underneath the C, and a *tenuto* is indicated above this note. His handwriting visually indicates the relationship between timbre and timing that he had in mind: in such a passage, rhythmic precision is not of prime importance; letting timbre—the natural speed of the sound decay—guide one's sense of rhythm will help the performers achieve a good timing, and to sense a good *ma* from each other's playing. Applying the concept of *ma* works well also at m. 47. In order to mark the clear entrance of the cello after the piano's triad motif, delaying the entrance slightly would give enough time for the last note of the piano's motif (F) to decay. This would also avoid a dynamic imbalance with the cello's first note.

If this mode of interpretation conflicts with the performing tradition of *Werktreue*, fidelity to the score, is it acceptable to deviate from Takemitsu's notations? According to the violist Nobuko Imai, Takemitsu has said that in ensemble playing the vertical line between instruments does not always need to align strictly,

even if the notation appears to suggest that the clean alignment is expected.[505] Peter Serkin is also witness to Takemitsu's flexibility, commenting that the composer did not expect the performer to follow his notations and directions exactly.[506] Having incorporated the aesthetic of *ma*, it seems that Takemitsu believed that sound and timing cannot be exactly fixated in notation.

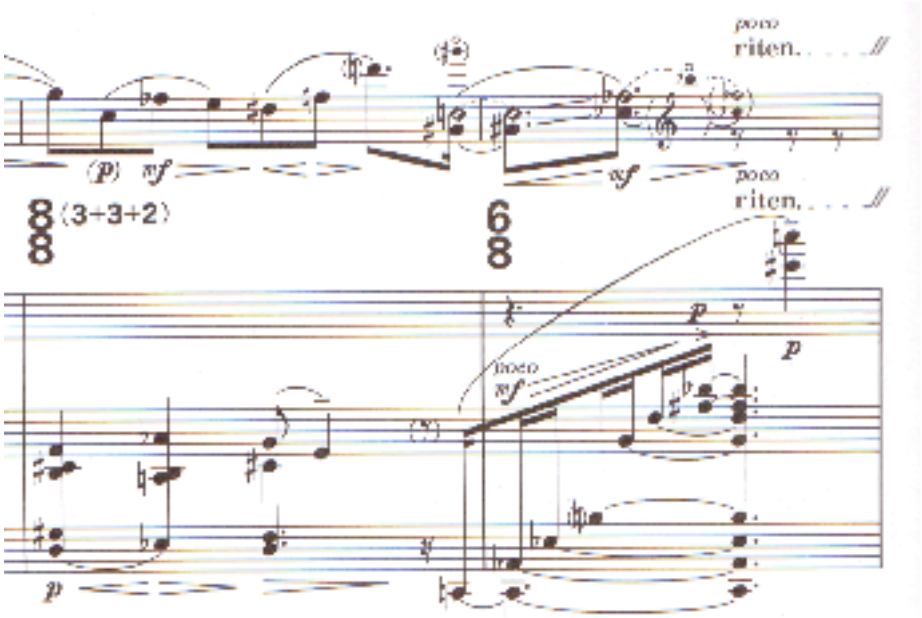

Figure 5.15. *Orion* mm. 27-28 ©1984, Schott Music Co. Ltd., Tokyo. Reproduced by permission of Schott Music Ltd. All rights reserved

Performing Takemitsu's *Orion* requires a careful balance between the countable (the number 3) and the uncountable (*ma*). In order to express the idea of 3, the performer has to metrically count. At the same time, in order to respond to the timbral subtleties specified by the composer, the performer must avoid strict adherence to rhythm, and let the sound decide timing. Perhaps, Takemitsu's notation *con fantasia* summarises the manner of playing expected in this piece: a free, improvisatory style of playing.

[505] Imai, 88
[506] Peter Serkin, "Kotoba dewa Setsumei dekinai Koto (things which cannot be explained by words)," in *Takemitsu Tōru wo Kataru 15 no Shōgen*, 456-7.

This accords well with Noriko Ogawa's approach to *ma*. In a personal communication, she explained her practical solutions and the advice Takemitsu had given her in regards to interpreting his music:

> I intuitively approach *ma*, so I do not think about how many seconds or how many beats *ma* should last while performing. Of course, I'd like to be faithful to the score and, in my music, I note "here is the first beat, and here is the second beat." However, in performance, I try to avoid showing that I'm counting. Takemitsu himself advised me to "wait until the sound disappears" at the places where rests are notated or to start a new phrase with new timbre as if "breaking a musical flow from whatever happened before." This led me to wait *ma* for the duration that cannot be mathematically explained. In ensemble playing or concerto, this becomes another story. In order to achieve a vertical alignment, we need to count metrically and agree on timings beforehand. In chamber music, as only a small number of people are involved, it is not difficult to wait for each other naturally. However, in concerto, this becomes more problematic. Sometimes, I think, a conductor doesn't have to be so strict with timings.[507]

5.5 Temporality of Takemitsu's Works and *Ma*

In the context of musical temporality, how may Takemitsu's assimilation of cyclic time and *ma* be interpreted? The formal design of the three works in which motives and opening sections recur may be understood as the traditional ABA form or as part of his plan to delineate cyclic time. *Ma* is neither simply a counted "rest" nor punctuation. The duration of a good *ma* is immeasurable. These special features of *ma* need careful consideration.

In his analysis of Takemitsu's *Rain Tree*, Blake Matthew Wilkins (1981) adopts Kramer's model, and asserts that the modal pitch content, intervallic relationships, texture, rhythm, and morphology of the work best relate to the "moment-form" ideals of Olivier Messiaen and Karlheinz Stockhausen.[508] On the other hand, Tomoko Deguchi (2005) argues that Takemitsu's music is primarily

[507] Taken from an email correspondence between the author and Noriko Ogawa on 3 October 2012. Translation mine.
[508] Wilkins, 199.

Western, and that it unfolds in linear time because of the presence of a clear beginning and ending:

> …in this study I argue against the premise that Takemitsu's music embraces the Eastern concept of time that is characterized as nonlinear and discontinuous. …I conclude that temporality in Takemitsu's music is primarily Western in that it is structured by a definite beginning, by continuity, and by linearity. In my view, it is not time but the perception of form that more strongly reflects the influence of Eastern aesthetics.[509]

She also criticizes Wilkins' categorization of Takemitsu's *Rain Tree* as "moment" time, arguing that Takemitsu's cultural background is not a sufficient reason to consider his music Eastern.[510] However, her argument is unclear: she claims, "[I]t is not time but the perception of form that more strongly reflects the influence of Eastern aesthetics." It is not clear whose perception of form she is referring to. Both the composer's concept of time and the listener's perception of form (and vice versa) can be culturally influenced, and these need to be clearly differentiated. It seems that she considers that Takemitsu's formal design reflects Eastern aesthetics.

The term "continuity" in Deguchi's argument is also problematic. The terms in which Christopher Hasty (1986) discusses temporality and continuity seem to have caused her the confusion between continuity and linearity.[511] Hasty argues that even though it would be possible to create *relative* discontinuity with loosely related musical events, it would be impossible to locate "pure discontinuity."[512] He discusses the nature of musical continuity that can also be located in "nonlinear" music. This co-existence cannot be avoided as "We *simultaneously* experience musical time and ordinary, or 'absolute' time," as pointed out by Kramer.[513] Deguchi further argues:

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[509] Deguchi, 16.
[510] Ibid., 20.
[511] Hasty, 58-74.
[512] Ibid., 61.
[513] Kramer, *The Time of Music*, 3.

> I do perceive this music in what I refer to as linear time, linearity determined by the implications that arise from earlier events in the piece. When listening to *Piano Distance,* I interpret the present event on the basis of past events, and simultaneously anticipate future events on the basis of the present event. It is a listening process that incrementally reveals musical motion, which at first may seem ambiguous to the listener. However, the linearity is not goal-oriented; it does not prepare the listener to expect a climax or a point of arrival.[514]

Despite Deguchi's claim, it is difficult to detect any causal relationship between musical events in *Piano Distance* as they are isolated by *ma*. As a performer herself, she must have been sufficiently familiar with the succession of musical events to be able to hear continuous musical motion through silence.

In my view, *Rain Tree Sketch*, *Rain Tree Sketch II*, and *Orion* display the characteristics of "moment" time. In "moment" time, musical events may be related movitically, and a phrase may have a goal; however, these musical events need to be self-contained, and the sections are not connected by transition.[515] In the three works, motivic interweaving (e.g., cyclic repetitions of pitches and phrases) as a joining force is omnipresent. Occasionally Takemitsu creates a clear goal within a phrase, for instance, at m. 35 in *Rain Tree Sketch* and mm. 14 and 89 in *Orion*. In these places, he introduces a climax by means of a sudden *crescendo* accompanied by *stringendo* or *stretto*. These climaxes are created not by a linear progression of pitches, but by the combination of rhythmic acceleration and dynamic increase. This resembles the practice of *jo-ha-kyū* in traditional Japanese music. *Ma* is inserted between musical events; it does not clearly indicate an end, but connects syntactically unrelated musical ideas, creating a continuous musical flow. Because of its nature to draw the performer's and the listener's attention to timbre and the decaying sound, *ma* negates the logical, linear sense of progression and thus neutralizes the expectation of both performers and listeners. The quasi-ABA formal design of the three works may be

[514] Deguchi, 86.
[515] Kramer, "New Temporalities in Music," 546.

regarded as the attribute of linearity, and the recapitulation of the section A can be heard as a structural goal. However, the beginning of the sections B in both *Rain Tree Sketch* and *Orion* is difficult to perceive through hearing alone, without the visual aid of a score. This ambiguous beginning and ending may reflect Takemitsu's understanding of cyclic time and his wish to explore nonlinearity in his music. In *Rain Tree Sketch II*, the contrast between the sections is indicated by the use of counterpoint and a longer phrasing in the section marked "Joyful." Because of his reference to Messiaen, Takemitsu might have chosen to conform to the traditional style of ABA form.

Compared with Crumb's timelessness in "vertical" time,[516] Takemitsu's cyclic time is expressed with a wide range of dynamics and timbral changes. The nonlinearity of Crumb's "cyclic" pieces can be experienced as a permanent, unchanging mood, while that of Takemitsu's music can be perceived as a suddenly increased density of time or as concentration on the now.

Conclusion

Takemitsu's interest in natural cycles made him aware of the close relationship which is valued in Japanese aesthetics between nature and humanity. Traditional Japanese music with its sense of immeasurable time in which a steady, strong-weak relationship between beats is not established fascinated him. Through studying his own culture, he developed a dualistic view of European and Japanese concepts of time, using the words "*tyokusen*" (linear) and "*enkan*" (cyclic) to represent the difference between the two. Collaboration with Japanese musicians gave

[516] Cf. see Chapter 4 for the discussion of Crumb's cyclic time as timelessness.

him a new insight into the relationship between time and timbre, and experimenting with this became his compositional trademark.

In *Rain Tree Sketch*, Takemitsu communicates his image of "circulating water in cosmos." This is delineated by cyclic repetitions of pitch, pitch-class sets, and motif. His asymmetrical rhythmic structure suggests the Japanese preference for odd numbers, and an acceleration accompanied by a dynamic increase towards a climax alludes to the rhythm of *jo-ha-kyū*. The formal design in which the opening material recurs may be part of the composer's plan to evoke an image of cyclic time.

However, Western musical symbols might not sufficiently communicate the rhythmic nuances that Takemitsu had in mind. His ambiguous tempo markings, the use of fermatas, the special attention to timbre, which can be seen in detailed dynamic markings, slurs, and the three different types of accents, all reflect the aesthetic of *ma*. This seems to underlie his idea of "non-Western" rhythm which influences tempo in performance. His sketches and manuscripts indicate how he incorporated the idea of listening to a decaying sound. My experience of rehearsing and performing *Orion* provides a practical example of how *ma* works between two performers: the best way to achieve a good *ma* is to let timbre decide the duration of sound and silence by listening intently to timbral changes.

In the context of musical time and temporality, Takemitsu's formal designs are open to different interpretations. The form of *Rain Tree Sketch, Rain Tree Sketch II*, and *Orion* might suggest the traditional ABA form, and the listener may find a linear progression in this; however, because of a lack of a clear contrast between the sections, the recurrence of the opening material can be interpreted as an evocation of cyclic time in which events recur. His use of *ma* also contributes to the negation of

logical progressions between musical events. Thus, nonlinearity in his music can be experienced as an irregular flow of time, or as a succession of the now.

Chapter 6: PERFORMANCE

Introduction

This chapter considers how a performer's interpretation may affect the listener's understanding of the temporality of a musical work. This includes tempo fluctuations, rhythmic and dynamic nuances, phrasing, pedalling, and theatrical gestures (e.g., facial expressions and body movements). Whether the performance is live or recorded (and edited) and the acoustics of a venue are also factors contributing to the overall quality of a performance, and these too may be an influence on the listener's perception of a work.

Previous chapters reviewed how the compositional methods of the three composers, such as chance operations, repetitions, and the use of *ma*, expressed nonlinear conceptions of time in musical terms. In some cases, a work suggests both linearity and nonlinearity (e.g., Cage's use of chance operations and absolute time in *Seven Haiku* and Takemitsu's quasi-ABA form). So, what choices does a performer have to make to highlight or de-emphasize linearity and nonlinearity in a single performance?

In Chapter 2, two different approaches to the notation of twentieth-century music were introduced. Some scholars and pianists, such as Roger Smalley, Edward Cone, and Susan Bradshaw, believe that the accurate rendition of "all the indications in the score" will be sufficient for projecting the composer's intention, while others, such as Peter Hill and Charles Rosen, believe that texts yield some possibilities for flexibilities in terms of dynamic and rhythmic nuances. If a performer realizes all the notated instructions, can the temporality that the composers wished to convey be communicated to the listener? Are there any performance practices that cannot be

expressed by notation but are indispensable to the expression of a certain concept of time?

This chapter examines the relationship between performance and temporalities through a comparison of recordings and a consultation of texts in which the three composers discuss their expectations of the performance.

6.1 Works by Cage

6.1.1 *Haiku*

Haiku 1 "For my dear friend, who" from Cage's *Haiku* is open to different interpretations. It appears to express both linearity and nonlinearity, and there is a lack of dynamic markings (see Figure 3.1).[517] Thus, the performer must decide whether the work should be performed without dynamic differences and tempo fluctuations or whether these have been left to the performer's discretion.

Steffen Schleiermacher has taken the lack of dynamic markings literally.[518] Subtle dynamic shades at the end of a phrase can be heard, but in general he sustains a single, soft dynamic level, and no tempo fluctuations are made.

Jovita Zähl takes a different view, adding rhythmic nuances and dynamic differences.[519] For instance, she slightly delays the first E at m. 2 and the dyad D-E at m. 3. At m. 6 she plays the minim D strongly and the two perfect fourths E-A and F-B flat softer. At m. 7, she plays two single notes G and D louder and starts the following phrase (whose beginning is marked with the dyad D-E) softer. At m. 8, she plays the grace note E followed by the main note D louder than the melody; the melodic line

[517] Cf. see Chapter 3.
[518] Steffen Schleiermacher, "Haiku," *John Cage Complete Piano Music* (Scne DG: 1999, released on 9 September 2013), MDG 613 0787-2.
[519] Jovita Zähl, "Haiku," *The Complete John Cage Edition, Vol. 49: The Piano Works 9* (Mode: 2013).

seems to accompany a *diminuendo* towards the end. At m. 9, she prolongs the last chord longer than the duration specified in notation.

Schleiermacher's approach highlights the music's static nature, while Zähl, who indicates the phrase structure clearly and gives a sense of a definite ending with dynamic and rhythmic nuances and tempo fluctuations, expresses the linear aspects of the music.

Schleiermacher highlights nonlinear aspects of Haikus II-V through a slow tempo. The tempo marking of Haiku II in the newly published edition gives a *minim*=54; he plays slower than a *crotchet* =54.[520] This seems to realize Cage's new idea of form in which "each moment presents what happens."[521] The consequential relationship between pitches and rhythmic patterns is weaken by the composer's construction of the continuity which resembles those produced by chance operations; the slowness of Schleiermacher's playing isolates sound events from each other and obscures the continuity of the music even further. In other movements, he also chooses slower tempi than the notated tempo markings. This makes it difficult for the listener to perceive phrases and a constant momentum. Thus, his performance emphasizes the discontinuous nature of the music.

Contrarily, Zähl's clear phrasing enables the listener to be more aware of linear aspects of Haikus II-V. She achieves this through her choice of tempo, both rhythmic and dynamic nuances, and pedalling. She plays Haiku II in the tempo notated in the new edition. In this tempo, phrases are audibly recognizable, and the

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[520] This might indicate that the score that Schleiermacher consulted has different markings from the new edition (edited by Don Gillespie). Schleiermacher's recording also contains different pitches and rhythms from the new edition, e.g., at m. 4 in Haiku V, he plays F instead of G; at m. 7 in Haiku I he plays G and D together and inserts a crotchet rest before the following phrase; at m. 3 in Haiku 3 contains only three beats instead of four.

[521] John Cage, *Silence*, 111. Cf. See the section 3.2.2. for the discussion of Cage's idea of new form.

first three sound events can be heard as a single musical idea, whereas in Schleiermacher's slower tempo these are heard as three unrelated events. Zähl also gives a short break to mark the start of a new phrase on the second beat in the middle of m. 7. In Haiku IV, she plays the dyad B flat-C at m. 2 slightly softer than preceding crotchets to mark the end of a musical idea. At m.4, before playing the last crotchet, she releases a pedal clearly, giving a short break to mark the beginning of another musical idea. (In this movement, Cage did not indicate any pedal markings.) Wherever possible, she deviates slightly from the score so that her playing shows the clear beginning and ending of phrases and the overall structure of the work.

6.1.2 *Seven Haiku*

6.1.2.1 Notation and Performance

The notation of *Seven Haiku* combines time and space; how a performer interprets this relationship affects the overall character of the work. The logistics of the notation are explained in the note to *Music of Changes*:

> The notation of durations is in space. 2 ½ cm = a crotchet. A sound begins at the point in time corresponding to the point in space of the stem of the note (not the note-head)…A staccato mark indicates a short duration of no specific length. A cross (+) above a quaver or at the end of a pedal notation indicates the point of stopping sound and does not have any duration value. Fractions are of a crotchet or of 2 ½ cm.[522]

Furthermore, Cage explains that "[t]he notation expresses a relation between time and space such as exists in the case of sound recorded on magnetic tape."[523]

To perform this piece with mathematically precise timings, the performer first has to calculate the timing taken to press and release a key. For instance, in the first

[522] In the first page of *Seven Haiku*, Cage writes, "See note, music of changes, for explanation of notation"; in Peters Edition the note is already included in the score of *Seven Haiku*.
[523] Dunn, 8.

piece, the tempo starts at a crotchet = 60, and at the next structural point (the sixth crotchet) it needs to accelerate towards the next structural point (the 13th crotchet). At this point, the tempo is a crotchet = 112, and continues to accelerate towards a crotchet = 152 (see Figure 3.2).

This notation raises two questions. The first is whether Cage intended a constant accelerando (speeding up at an equal rate over a certain period of time) or a gradual accelerando (e.g., at first speeding up slowly and later a sudden quickening). If he meant a constant accelerando, it is possible to mathematically calculate the exact timing of hitting a key or terminating a sound. The second question is whether acceleration constantly takes place within a measure or whether the music accelerates measure by measure.

If Cage had a constant acceleration through a measure in mind, the equation to calculate tempo changes can be explained by linear function: acceleration/slowing down= change in speed/time.[524] For instance, in the first movement, the time to reach where M.M.= 112 is notated is 9.88372… seconds, and the time to reach the end of the movement is 12.156448…seconds. If the acceleration takes measure by measure, a measure is performed at one fixed metronomic speed. The relationship between the change of metronomic speed and the duration taken is shown in Table 6.1. In this case, the time to reach where M.M. = 112 is notated and the end of the movement are 9.9999… seconds and 12.3623…seconds, respectively. Both results exceed 12 seconds, the time marked in notation by Cage. This suggests either Cage expected an approximate timing in performance or he specifically presented this number so that the haiku ratio 5:7 could be shown.

[524] I have asked my friend Jan Buhagiar, who used to read Physics at Oxford and is also a keen amateur saxophone player, for his mathematical help. The results of these equations are provided by Dr. Hiroki Matsui who is an associate professor of Math at Chiba University, Japan.

Mathematical calculations exhibit a practical issue in performance. Even though the performer can use a stopwatch to monitor the timing of hitting keys and stopping a sound, it is not possible to attain such a precision as 9.8837… seconds: a stopwatch does not display small decimals, and precision to this extent is beyond human capacity. Tape can produce any musical continuity within given time; however, a human performer is limited by physical capability. Some actions require more time and energy than others: when two notes are wide apart in register, the performer's arm has to travel the distance between them. The same is true about other attributes of sound that Cage defined: pitch (frequency), loudness (amplitude), timbre, and duration—all affect the duration of an entire piece in performance.[525] Thus, of necessity, the performer has to make compromises to approximate the timing.

Measure	Metronomic Speed	Duration (seconds)		
1	60.0	1.000000		
2	60.0	1.000000		
3	60.0	1.000000		
4	60.0	1.000000		
5	60.0	1.000000		
6	66.5	0.902256		
7	73.0	0.821918		
8	79.5	0.754717		
9	86.0	0.697674		
10	92.5	0.648649		
11	99.0	0.606061		
12	105.5	0.568720	The time passed at the end of m. 12	9.999994481
13	112.0	0.535714		
14	120.0	0.500000		
15	128.0	0.468750		
16	136.0	0.441176		
17	144.0	0.416667	The time passed at the end of m. 17	12.362302
18	152.0	0.394737		

Table 6.1. The relationship between metronomic speed and the duration taken in the first movement of *Seven Haiku*

[525] Cage, "Defence of Satie," 81.

Martin Iddon, who consulted a copy of the pianist David Tudor's score, suggests that the mathematical results do not have to be meticulously followed in performance. Tudor asked the mathematician Hans Rademacher for his help when studying *Music of Changes*.[526] After calculating timings, Tudor rounded numbers to something perceivable and playable:

> Nevertheless, though this [Iddon's display of Tudor's mathematical calculations] seems to have formed an integral part of Tudor's working process, it should not be taken as a suggestion that he expected to be able accurately to achieve a duration of 12.9310345 seconds for the last sub-section of the first rhythmic cycle: in later, tidier versions of the working, durations are reduced to a maximum of two decimal places; in Tudor's copy of the score, indications are given to the nearest second, with a superscript plus or minus symbol, should the tempo change occur just after or just before the indicated time point. Nevertheless, Tudor's meticulous working to such decimal exactitude, even if it did not occur in the performance of the piece itself, certainly influenced Cage's own working processes...[527]

Iddon points out that because of this adjustment, "the indications in Tudor's score are not as 'accurate' as true time-space notation would have been."[528] Iddon also discusses the issue of acceleration:

> Since only the beginning and end points of tempo changes are indicated in clock time [in Tudor's score], there is a degree of flexibility in the realization of tempo curves that would be lost in much of Cage's music across the 1950s, where absolute clock time, at least in Tudor's hands, became central.[529]

Similarly, the British pianist John Tilbury asserts that Cage's notation should be understood as a *style* rather than a text to be followed exactly:

> The chance operations also threw up various impossible notations (such as 1/7+2/3+1/5 of a crotchet to be played within a second) which cannot be taken literally; according to John Tilbury they are as much a notation 'directed at the performer as a description of the sound to be heard. They suggest a *style* of performance: neat, crisp, precise, cool:'[530]

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[526] Iddon, 38.
[527] Ibid., 39.
[528] Ibid., 40.
[529] Ibid.
[530] Nyman, 61.

6.1.2.2 Comparison of Recordings

Four recordings, made by Martine Joste (2011), Giancarlo Simonacci (2010), Joshua Pierce (1999), and Steffen Schleiermacher (1999) are compared.[531] (There is no available recording by David Tudor.[532]) The table below compares how these pianists have dealt with the challenge and interpretive issues presented by Cage's notation. The lengths of each movement as determined by Cage (or chance operations) are listed on the furthest left.

	Cage	Joste	Simonacci	Pierce	Schleiermacher
Haiku 1	0:12	0:17	0:13	—	0:23
Haiku 2	0:19	0:19	0:11	—	0:26
Haiku 3	0:13	0:17	0:23	—	0:25
Haiku 4	0:18 ½	0:16	0:16	—	0:27
Haiku 5	0:10	0:17	0:24	—	0:24
Haiku 6	0:10 ½	0:16	0:18	—	0:24
Haiku 7	0:15 ½	0:15	0:20	—	0:32
Total	1:38 ½	1:57	2:05	2:01	2:48

Table 6.2. Different timings in the recordings of Joste, Simonacci, Pierce, Schleiermacher and Cage's own marking

The table indicates two possible ways to present the work: assigning a track to the whole work or to each movement. In the former case, the total length (calculated with Cage's specified lengths) is 1' 385". Pierce's recording uses the former method, while Joste, Simonacci, and Schleiermacher use the latter.

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[531] Martin Joste, "Seven Haiku," *John Cage: The Works of Piano 6* (2011), itune; Giancarlo Simonacci, "Seven Haiku," *John Cage Piano Music* (2010), itune; Joshua Pierce, "Seven Haiku," *John Cage Works for Piano and Prepared Piano*, Vol. 1 (1999), itune; Steffen Schleiermacher, "Seven Haiku," *John Cage Complete Piano Music* (Scne DG: 1999, released on 9 September 2013), MDG 613 0787-2.

[532] Paul van Emmerik, *A John Cage Compenduim* < http://cagecomp.home.xs4all.nl/>, accessed on 15 September, 2013. Last updated 7 January, 2013. Tudor's mathematical working on *Seven Haiku* is archived in Getty Museum in Los Angeles. <http://archives2.getty.edu:8082/xtf/view?docId=ead/980039/980039.xml;chunk.id=ref1814;brand=default;query=seven%20haiku>, accessed on 11 December 2015.

The table illustrate the huge gap between Cage's meticulously notated timings and its realization made by these four pianists. For instance, Cage marks 0:19 for the second haiku; however, Simonacci plays it for 0:11. The notated length for the third haiku is 0:13; in the recordings of Simonacci, Joste, and Schleiermacher, it takes 0:23, 0:17, and 0:25, respectively.

The difficulty of presenting and perceiving the exact timings that Cage notated is partly due to the standard recording practice. Usually a track starts immediately after 0:00 and ends with a blank. Since all the movements end with silence, it is not possible for the listener to perceive the exact timing of the *end* of a piece that is notated in the score. Joste tries to mark the exact timing by cutting the sound, most noticeably in the first movement, benefiting from the technicality of editing. However, the first note of the first movement starts immediately after 0:00, not between 0:01 and 0:02 as specified in notation. Schleiermacher's recording has a longer blank, compared with other recordings. It is not known whether this was his decision or that of the recording engineer.

The varied timings can also be considered part of interpretive differences, i.e., how each performer dealt with the mathematical "duration" specified by Cage and the performance instruction, "It will be found in many places that the notation is irrational; in such instances the performer is to employ his own discretion."[533]

The contrasting approaches of Pierce and Simonacci highlight different temporal aspects of the work.[534] In Pierce's recording, the beginning and the end of sound events and silence are clearly audible. This seems to heighten the listener's awareness of the *duration* of sound and silence and the continuity of time, i.e.,

[533] See programme note to *Music of Changes*.
[534] The other two recordings fall between these two approaches; because of the quality (adjusted dynamics etc) of the recordings by Schleiermacher and Joste, it is harder to hear clear dynamic differences in their playing.

linearly progressing time. In his recording, the attack and release of a key and the timing of releasing a damper pedal are clearly heard. The way he releases a pedal could be regarded as inelegant or unmusical in a performance of a Classical or Romantic work; in this occasion, the sound (noise) of releasing a pedal is helpful for the listener to perceive the exact timing of when a sound terminates. It seems to me that he is concerned with achieving the timings specified in notation and the idea of musical time that starts and *stops* (see Cage's performance note: "A cross (+) above a quaver or at the end of a pedal notation indicates the point of stopping sound") rather than begins and ends. Simonacci however is less concerned with mathematically calculated timings and the durations specified in notation. He plays the fifth movement much slower than the speed determined by chance operations: the notated length of the whole movement is 0:10, while Simonacci's recording takes 0:24. In the fourth movement, three notes A#-B-C# is supposed to be held for approximately four seconds, and the next sound events are supposed to be played after silence lasting for approximately two seconds; in Simonacci's playing all of these happen within four seconds, showing that he disregarded the notated duration. This movement is relatively easy to achieve the mathematically accurate timings as a tempo is fixed to M.M. a crotchet = 54 for the first two measures (or 12 units). It is not clear why he deviated from the score to this extent; it could be that he interpreted Cage's direction, "It will be found in many places that the notation is irrational; in such instances the performer is to employ his own discretion," as permission to add his own musical feelings.

Although Simonacci's playing does not emphasis the linear progression of time, his attention to rhythmic and dynamic nuances, which seems to derive from his personal, "musical" interpretation, serves to emphasize each sound event/moment and

thus the discontinuity of the music. In the third movement, he lingers on the first note of a trill. In the fifth movement, he plays an arpeggio with a clear musical shape in a much slower tempo than the notated speed, and contrary to *ppp* marked in the score, he plays the last note of the arpeggio slightly louder.[535] He also delays the E flat (in the 8th unit) and plays this note softer than the preceding semiquavers in the same measure although no *decrescendo* is marked in the score. These features of his playing direct the listener's attention to musical details (e.g., dynamic differences and rhythmic nuances) and the sound qualities of each sound event. Consequently, his playing highlights each moment rather than the continuity of time.

To my mind, Simonacci's playing expresses the nonlinear temporal world and the sense of contemplation of the haiku. If Simonacci had been concerned with mathematical timings, he would not have had "time" to be engaged in expressive moments in his performance. This is a point made by Bonus who asserts, "Fewer subjective rhythmic gestures or rhetorical effects could be conveyed when mechanical media constricted the overall duration of any given musical performance—and composition—to a 'start and stop' time."[536]

Cage's use of absolute time is hard for the listener to perceive in a recording, but in a live performance this can be shown to the audience with a performer's display of his/her use of a stopwatch. This would add another dimension to the listener's temporal experience of a work. On 11 October 2013, the pianist Joanna McGregor performed Cage's *Water Music* (1952) in a concert focusing on works employing graphic notations. *Water Music* was composed with chance operations, and Cage

[535] Both *crescendo* and *decrescendo* are indicated on the score; however, the beginning of the arpeggio is *pp* and the loudest is *p*. In the other recordings, the arpeggio is played quickly and dynamic differences are not clearly heard.
[536] Bonus, 522-3.

notated actual time instead of metronome markings. In the concert, the score of the work was shown on screen so that the audience could experience the whole work both aurally and visually. McGregor used a stopwatch and executed the work with precision; compared with her performance of other works in the programme, her playing of *Water Music* projected a sense of a rush, as if she was chased by time. This could be that the psychological effect of the score on screen made us aware of the pressure of progressing time. This is perhaps how Tudor described his temporal experience of *Music of Changes*—"I was *watching* time rather than *experiencing* it."[537]

6.1.2.3 Cage's Expectation of the Performer

What did Cage wish to express in works composed through chance operations, and what did he expect from the performer? Cage was aware of the discrepancy between the composer's intentions and the capability of the performer (or the willingness to conform to the notation). He states, "The exact measurement and notation of durations is in reality mental: imaginary exactitude,"[538] and "Value judgments are not in the nature of this work as regards either composition, performance, or listening."[539] However, at the same time, he expected the performer to become a Frankenstein rather than a human being:

> The function of the performer in the case of the *Music of Changes* is that of a contractor who, following an architect's blueprint, constructs a building. That the *Music of Changes* was composed by means of change operations identifies the composer with no matter what eventuality. But that is notation is in all respect determinate does not permit the performer any such identification: his

[537] David Tudor, "From Piano to Electronics" *Music and Musicians* 20 (1972), 24. Quoted in
John Holzaepfel, "Cage and Tudor," 173-4.
[538] Cage, "Composition as Process (1958)," in *Silence*, 29.
[539] Idem, "Composition: To Describe the Process of Composition Used in *Music of Changes* and *Imaginary Landscape No. 4* (1952)," in *Silence*, 59.

> work is specifically laid out before him. He is therefore not able to perform from his own center but must identify himself insofar as possible with the center of the work as written. The *Music of Changes* is an object more inhuman than human, since chance operations brought it into being. The fact that these things that constitute it, though only sounds, have come together to control a human being, the performer, gives the work the alarming aspect of a Frankenstein monster.[540]

It is possible that, as Cage used chance operations to eliminate his own taste, memory, and tradition, he anticipated that the performer would do the same. David Tudor attempted to do this:

> …because you can't do it unless you're ready for anything at each instant. You can't carry over any emotional impediments, though at the same time you have to be ready to accept them each instant, as they arise. Being an instrumentalist carries with it the job of making physical preparations for the next instant, so I had to learn to put myself into the right frame of mind. I had to learn how to be able to cancel my consciousness of any previous moment, in order to be able to produce the next one. Which this did for me was to bring about freedom, the freedom to do anything, and that's how I learned to be free for a whole hour at a time.[541]

Tudor's performance strongly exhibits the physical, almost athletic capability required by the work. The Japanese composer Toshi Ichiyanagi, who studied with Cage in New York, states that Cage was "very nervous when the performer plays something different from what he expected in performance [and notation]."[542]

In the recordings of *Seven Haiku*, Pierce attempted to meet the composer's expectation, while Simonacci resisted inhuman demands that the composer made on the performer. Both approaches are valid; Pierce's performance may be close to what Cage wished to achieve in the work.

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[540] Cage, *Silence*, 36.
[541] Nyman, *Experimental Music: Cage and Beyond,* 62.
[542] Toshi Ichiyanagi, "Memori obu John Cage (Memory of John Cage): Sakkyokuka/Ensōka no tame ni (For composers and performers)," interviewed by Jun-ichi Konuma, *Eureka* 617, vol.44 (October 2012), 71-72. (68-75)

6.2 Crumb's *Makrokosmos I & II*

6.2.1 Approach to Crumb's Notation: "Accurate" Rendition or Flexibility?

Crumb's heavily marked notation challenges the performer. As seen in Chapter 4, his verbal expressions, such as "Joyously, like a cosmic clock-work; with mechanically precise rhythm," give the performer vital information regarding the character of a piece. Conventional musical symbols and numbers also control every parameter of performance, i.e., dynamics, rhythms, the duration of fermatas, articulations, and pedalling. Does Crumb's notation allow any flexibility for the performer? Is there any performance practice associated with the work?

The two pianists David Burge and Robert Miller who premiered *Makrokosmos I & II*, respectively, comment on how to perform Crumb's music. Burge states:

> The effect of either volume on an audience can be spellbinding, but the spell must not be broken from start to finish. Though each set has twelve separate pieces, the attention of the listener must not be allowed to waver either because of the actions of the pianist (who *must* stay seated and minimize all gestures inside the piano) or because of failure to move rapidly from the end of one movement to the next. Crumb's music is full of fermatas; these rarely, if ever, mean silence. Some reverberation should be heard at all times in order that the momentum, the thread of the total conception, not be lost….The notation is explicit in every detail as to how each sound is to be made…and all sound combinations must be fully understood and executed with complete assurance.[543]

Burge is concerned with the almost "magical" atmosphere of the work. He considers minimal body movements and gestures, reverberation, and a careful observation of the notation would produce the desired effect. Millar states:

> Of course each piece has its own very characteristic sound and mood, and its duration is nicely calculated, psychologically speaking, so that both performer and listener become totally involved and absorbed in its expressive import…*Makrokosmos (Volume II)* is written out in a very precise notation, but the music will at times sound quite free and flexible, almost improvisatory. The last piece of each of the three parts (i.e., the fourth, eights and twelfth pieces) are printed in a geometric design or "symbolic" notation. I feel that the composer was thereby subconsciously compelling the performer to play the work from

[543] Burge, 218.

> memory. And so I have. I feel that this definitely helps the performer to mesmerize his audience for an enriching, half-hour musical experience.[544]

Miller agrees with Burge on the mesmerizing quality and detailed notation of the work. However, he suggests that the music should not sound like a mechanical reproduction of the text but should show free and flexible qualities when necessary.

Crumb considers his music in terms of performance and is aware of the subtleties that cannot be notated:

> I always carefully re-edit my music once I have heard the live sounds. Frequently my performers come up with the ideal solution for a knotty problem. Then, too, as flexible as our notational system is, there are always numerous subtleties which could never be put on paper. It is therefore critically important to have sympathetic performers involved in the premiere performance and recording of a new work, since they are, in fact, establishing a "performance practice" for that work.[545]

This implies that there are performance practice issues associated with his music that are not apparent in notation. In addition, despite his detailed performance instructions, the composer realizes that no two performances will be the same:

> My mode of expression depends so much on the direct, emotional projection of the live performer. I also relish the fact that the tiny nuances are always changing—no two performances are alike.[546]

6.2.2 Comparison of Recordings

A comparative analysis of recordings was conducted with the aim of answering the following questions: how do performers deal with Crumb's notation? How different approaches or interpretations affect the projection of "timelessness" in recorded or live performance? Can some recordings reveal the essence of a "performance practice" that Crumb refers to in the above comment?

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[544] Robert Miller, 308-9.
[545] "Interview: Crumb/Shuffett," 36-7.
[546] Ibid., 36.

The number of recordings and the varieties of the countries in which they have been produced suggests that *Makrokosmos I & II* has established an international reputation and become integrated into the repertoire of contemporary pianists. The earliest was those made by David Burge (*Makrokosmos I*) in 1974 and Robert Miller (*Makrokosmos II*) in 1976.[547] Robert Groslot recorded both books in 1982, and Jeffrey Jacob, for whom Crumb wrote *Gnomic Variations* (1981), released complete Crumb's works for piano in two volumes in 1988 (*Makrokosmos I* is included in the first volume and *Makrokosmos II* is in the second volume).[548] Uniquely, he does not assign a separate track to each piece; each book is recorded as a single track, lasting about 30 minutes. In the 1990s, Christiane Mathé and Jo Boatright released recordings in 1996 and 1999, respectively.[549] Since the millennium, about ten CDs have been released: Toros Can (France, 2002), Laurie Hudicek (U.S.A., 2002), Andrew Russo (U.K., 2002), Philip Mead (U.K., 2004), Robert Shannon (U.S.A., 2004), Margaret Leng Tan (U.S.A., 2004), Enrico Belli (Germany, 2007), Ellen Ugelvik (Norway, 2008) Ya-ou Xie (Germany, 2009), Rachel Kiyo Iwaasa (Canada, 2010), and Mizuha Nakagawa (Japan, 2013).[550] Robert Shannon's recording in 2004 is volume 8 of the *Complete Crumb Edition* produced by Bridge records.

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[547] David Burge, *Makrokosmos I* (Nonesuch, 1974), H-71923; Robert Miller, *Makrokosmos II* (Sony Music Entertainment, 1976).
[548] Robert Groslot, *Makrokosmos Volume I and II* (Fontec, 1982), LP; Jeffrey Jacob, "Makrokosmos I" and "Makrokosmos II," in *George Crumb Works for Piano* (Centaur, 1988), CRC 2050.
[549] Christiane Mathé, *Makrokosmos I + II* (Koch, 1996); Jo Boatright, *George Crumb Makrokosmos Volume I and II* (Music and Arts Programes of America, 1999).
[550] Toros Can, *Makrokosmos I & II* (L'empreite digitale, 2002), ED13165; Laurie Hudicek, *Makrokosmos I* (Innova, 2002), INNOVA313; Andrew Russo, "Makrokosmos I," *Voice of the Whale* (Black Box Classics, 2002), B00006S91; Philip Mead, "Makrokosmos I and II," *George Crumb The Complete Piano Music* (Metier 2004), MSVCD92067; Robert Shannon, "Makrokosmos, Volumes I & II," in *Complete Crumb Edition, Volume 8* (Bridge Records, 2004), Bridge 9155; Margaret Leng Tan, "Makrokosmos I & II," *George Crumb Makrokosmos I & II* (Mode, 2004); Enrico Belli, "Makrokomos I," *Debussy Preludes Book I and Crumb Makrokosmos I*

The recordings listed here can be categorized into two groups: those supervised by the composer and the others which were not supervised by him. The former includes the recordings by David Burge, Robert Miller, Jo Boatright, Robert Shannon, and Margaret Leng Tan. Their recordings are compared with the other five recordings containing both volumes of *Makrokosmos* and made after 2000: Toros Can, Laurie Hudicek, Philip Mead, Ellen Ugelvik, and Ya-ou Xie.

Table 6.3 shows the length of the three cyclic pieces analyzed in Chapter 4, "The Magic Circle of Infinity," "Spiral Galaxy," and "Agnus Dei." In these pieces, "timelessness" is expressed as cyclic time, or in Kramer's terms, "vertical" time. The timing of the last notes in performance is indicated in parenthesis, showing the difference in speed more clearly. These extra timings indicate how these pianists deal with Crumb's marking *l.v.* (to let the string vibrate) at the end of these pieces. Two timings in parenthesis under "Agnus Dei" indicate the durations from the sections A to C (where the music is linearly notated) and that of the section D (the player-wheel), respectively.

	Magic Circle	Spiral Galaxy	Agnus Dei
Burge (1974)	1:44 (1:24)	3:00 (2:49)	N/A
Miller (1976)	N/A	N/A	4:05 (1:24)
(3:49)			
Boatright (1999)	1:53	3:04	3:28

(Wergo, 2007), WER6804-2; Ellen Ugelvik, "Makrokosmos I & II," *George Crumb Makrokosmos I & II* (Simax Classics, 2008), PSC1263; Ya-ou Xie, "Makrokosmos I and II," *Makrokosmos I-IV* (Telos Music, 2009), TLS093; Rachel Kiyo Iwaasa, "Makrokosmos II," *Cosmophony* (Centrediscs, 2010), TK-423; Mizuha Nakagawa, "Makrokosmos II," *George Crumb Makrokosmos II* + (Boundee Japan, 2013), B00ESJCNBS.

	(1:39)	(2:54)	(1:10)
(3:21)			
Shannon (2004)	1:44	3:12	3:43
	(1:25)	(2:45)	(1:32)
(3:10)			
Leng Tan (2004)	2:06	2:46	4:12
	(1:44)	(2:30)	(1:20)
(3:26)			
Can (2002)	1:36	2:46	4:15
	(1:18)	(2:30)	(1:25)
(3:57)			
Hudicek (2002)	1:49	2:51	3:47
	(1:15)	(2:28)	(1:15)
(3:06)			
Mead (2004)	2:14	3:16	5:01
	(1:31)	(2:31)	(1:40)
(4:22)			
Ugelvik (2008)	1:46	3:24	4:03
	(1:30)	(2:43)	(1:38)
(3:45)			
Ya-ou Xie (2009)	1:54	2:59	4:15
	(1:32)	(2:37)	(1:35)
(4:10)			

Table 6.3. Different timings in the recordings of the three "cyclic" pieces

Considering how Crumb notates everything so precisely, the diversity in performance shown by the chart is surprising. First, the tempi of "The Magic Circle Infinity" are determined as a semiquaver =156 for Part A and a semiquaver=226 for Part B. Leng Tan's recording takes 1:44 until she plays the last note, while Hudicek's recording takes 1:15. Can's recording is another fast one, taking 1:18. David Burge and Robert Shannon play the piece in 1:24 and 1:25, respectively, faster than the other performers. Leng Tan's performance is the slowest among others. Boatright's recording is one of the slower ones.

The different lengths of "Spiral Galaxy" also reveal each performer's individual interpretation. The slowest recordings are found among the supervised ones, made by Boatright and Shannon. They follow Crumb's rhythmic and tempo indications, i.e., a quaver=20=3 sec. and a semiquaver=40. Here again, Can and Hudicek play fast. Tan's recording is approximately the same length (shown in parenthesis) as theirs. The length of Mead's recording is also about the same as those by Tan, Hudicek, and Can.

There are greater differences in the performers' choices of tempo in "Agnus Dei." In the first section (the duration of Parts A to C, the timing shown in parenthesis on the left), Boatright's 1:10 is the fastest and Hudicek's 1:15 follows. In the second section (part D, on the right), Hudicek's 3:06 is the fastest, and then Shannon's 3:10 follows. Mead and Xie are the two slowest among the others, taking 4:22 and 4:10, respectively. The differences in speed in the first section seem partly to derive from the difference between male and female voices (the pianist needs to sing in Parts A and B): Miller, Shannon, Can, Mead start Part C at 0:34, 0:38, 0:34, 0:38, respectively, whereas Boatright, Hudicek, and Tan start it at 0:30, 0:30, and 0:29. Ugelvik starts at 0:39, taking longer than anyone else, because she either miscounts or ignores the two four-second rests. In the second section (Part D), Shannon plays faster than a demisemiquaver=76. Boatright follows the notated metronome marking. Tan plays slightly faster, whereas Miller plays more slowly than the specified tempo. Mead and Xie play much slower than a demisemiquaver=76, and Uglvik speeds up towards the end of the piece. Hudiceck's tempo is faster than the tempo marking.

The differences between recordings are not limited to the performers' choices of tempo, but also found in the acoustic conditions of the venues captured in recording, dynamic levels and ranges, and the performers' attitudes towards rhythmic

precision and phrasing. These are less obvious from the chart; the combination of these, along with the performers' choices of tempi, affect the projection of "timelessness": When performances show consistency in terms of rhythms, timbre, and dynamic levels, and an unchanging mood is kept throughout the pieces, a sense of stasis and timelessness, "vertical" time in Kramer's terms, is projected. However, when performances show inconsistency and obvious changes, musical details are more emphasized, and this may distract the listener from perceiving the music's cyclic nature.

In the supervised recordings, the rich acoustics of the venues are well captured, and the reverberation of the decaying sound is continuously heard. This helps the listener experience the spatial dimension and endlessness that the "cyclic" pieces embody. For instance, in Shannon's performance of "Spiral Galaxy," the full reverberation helps carry decaying sounds over fermatas, whereas in the unsupervised reading of the same piece by Mead, there is a slight gap between Parts A and B. As a consequence, Mead's performance fails to realize the concept of the "timeless," which has no beginning and end. Furthermore, in the recording of Shannon, the reverberation softens the dissonance between the black and white keys, producing a hazy sonority as a whole, whilst the drier acoustics in Mead's recording means that each sound is heard, and thus the listener is more aware of the changes of pitches, rhythms, and dynamics in the texture.

The different recording conditions make a comparison of dynamic levels and sound qualities difficult; the performances of "Agnus Dei" by Hudicek, Mead, and Ugelvik seem too loud and percussive to achieve Crumb's markings "*pppppp* (incredibly soft, on threshold of silence)" and "like a vision; as if suspended in

endless time."[551] Since Hudicek chooses a fast tempo for Part D (see Table 6.3), her playing suggests active movement rather than *suspension*, especially when she plays repeated tritons with a clear attack. In Mead's case, because of the dry acoustics and his choice of a slow tempo, rhythmic impulse and the attack of keys are clearly heard. Thus the listener's attention is directed to each sound and not to the hazy sonority that the overall texture produces. This is most obvious in Part D where his slow, relatively loud playing marks the beginning and ending of a section and a phrase, instead of creating "unbroken" timelessness. Ugelvik also indicates the beginning of a phrase: she plays four open fifths in Part D strikingly louder than the other motives. On the other hand, the dynamic levels of Shannon's and Boatright's supervised recordings are kept to a soft level throughout the piece, thus projecting an unchanging mood and musical stasis.

The projection of "timelessness" is also affected by the performers' handlings of rhythmic details. In unsupervised recordings, the pianists occasionally fail to achieve rhythmic precision, and this may be experienced by the listener as changes in the flow of time. Hudicek choose a rather fast tempo for "The Magic Circle of Infinity" and rushes through three semiquaver dyads located at the beginning of "circle-music" in notation, making the listener aware of the pressure of "time" rather than "timelessness." Ugelvik slows down after the three semiquaver dyads, failing to capture the musical character as expressed in the title "Moto Perpetuo." Similarly, Mead slows down when he plays repeated triplets. This subtle tempo change may make the listener anticipate the end of a phrase, instead of directing their attention to the music's cyclic nature. The pianists in the supervised recordings meticulously

[551] Their recordings might not be the real representation of their performances in live. Their recording engineers must have adjusted dynamic levels for these particular recordings.

observe the composer's rhythmic notation and directions. Occasionally, the lengths of rests exceed the specified length; however, throughout the pieces, the proportions are accurately maintained. For instance, the lengths of an open fifth chord at the beginning of Part D in "Agus Dei" in the recordings of Miller and Shannon seem to last about 6 seconds, exceeding the specified length (approximately four seconds). However, they maintain the same length when this chord is repeated three times later in the piece. Both Burge and Shannon play "The Magic Circle of Infinity" with rhythmic precision. Their rhythmically consistent playing succeeds in displaying an unchanging, infinite flow of cosmic time.

Another characteristic influencing the overall character of a piece is the performers' shaping of phrases. Kramer argues that a piece in "vertical" time lacks *phrases*, progression, goal direction, movement, and contrasting rates of motion.[552] This theory can also be applied to performance: when a performance shows clear phrasing, the listener may anticipate an end or a climax and may not experience "vertical" time. This might be the case of Mead's performance of "Spiral Galaxy." His slowing down at the end of circling figures makes the listener anticipate the end of a phrase, instead of the "timelessness" of time. Hudicek's tiny *crescendos* towards the higher note in the execution of pentatonic circling figures have the same unwanted effect. On the other hand, in Boatright's recording of "Agnus Dei," her careful observation of Crumb's marking "senza rit." at the end of the piece successfully gives the impression that the music will continue endlessly. Her rhythmic and dynamic consistencies having no obvious changes, which means that the listener does not anticipate the end of a phrase, contribute to the projection of "endless time."

[552] Cf. see Chapter 2 for a detailed discussion of "vertical" time. Emphasis mine.

6.2.3 A Rich Acoustic and Rhythmic Precision: Testimonies by Robert Shannon and Jeffery Jacob

I have had personal communications with two pianists who worked with Crumb to ask for their insights into performing his works. Both commented on the importance of having a rich acoustic and achieving rhythmic precision.

Robert Shannon shares his experience of working with Crumb:

> Recording Makrokosmos was one of the most frustrating things I ever did, because striving for some kind of "perfection" in a situation when so many things can go wrong (brushing strings, pedal creaks, etc.) is a hopeless task. I think we did about thirty-five takes on just Spiral Galaxy alone. What is great about that recording I think is the sound stage that the engineers created...Crumb really needs a rich acoustic to reverberate in.[553]

> Crumb was there [at the recording session], I had played it for him before. (I played his music for him since about 1977.) He is not particularly helpful about aesthetic things - just practical hints about how to overcome cross-bar beams inside the piano that prevent one from playing the right harmonics, etc.) I was also in a touring ensemble with him -see the DVD Mad Dog - but that's another story.) He wants his music performed EXACTLY as written, especially in rhythmic matters -yes, I counted [the duration of a rest]- hope it came out right! -and in the production of special sounds. But that's about it. I do know that he dislikes performers who do NOT count the rests…[554]

Shannon highlights the need for rhythmic accuracy, reverberation, and the exact duration of rests in performance. Crumb specifies the duration of a rest, but he chooses countable and physically achievable lengths of numbers, unlike Cage's *Seven Haiku* in which uncountable numbers are used. The pianist Alejandro Cremaschi states, "He [Crumb] is a good composer - his timing on the page usually translates very well to the actual version and feels natural."[555]

Shannon further comments on rhythmic precision:

> I do know that he plans his music out in really large rhythms: phrases within a movement and movements against themselves. So maybe the interaction of

[553] This email was written by Robert Shannon on 6 March 2014. He recorded the *Makrokosmos I & II* for Bridge Records under the composer's supervision.
[554] Email written by Robert Shannon on 7 March 2014.
[555] Personal email correspondence with the author on 23 April 2014.

> space and time in his music is the magical part. (We need Einstein at this point.) So it seems to me that all the sounds a performer makes must "add up" to a certain big picture, and it is very clear when you have tuned that up just right.

Although Shannon reports, "He [Crumb] wants his music performed EXACTLY as written," his recording occasionally deviates from Crumb's direction.[556] However, as Shannon states—" all the sounds a performer makes must "add up" to a certain big picture"—the right proportion of the part needs not to be distorted so that the clear design of the whole can be maintained.

Pianist Jeffrey Jacob, who recorded *Makrokosmos I & II* in 1988, also worked with Crumb. His recording is not listed in the comparative analysis as he presents the work as a single piece without timings for individual pieces; his playing displays the rhythmic precision and careful attention to timbre that characterize the supervised recordings. This is perhaps the outcome of his faithful attitude towards Crumb's notation:

> Since Crumb notates EVERY detail of his scores so precisely, my general method has always been to learn the music as accurately as I possibly can especially with regard to time and rhythm, then as I become more familiar with the music gestures, to see if some small rhythmic deviations might be appropriate. A very important point here is the reverberant quality of the hall. With a great deal of reverberation, I believe one can stretch the long rests somewhat.[557]

Thus, Jacob, like Shannon, acknowledges the importance of the reverberation of the hall and the need for rhythmic precision.

This may give the impression that Crumb does not allow any freedom in performance. But this is not the case as Crumb's earlier comments on subtleties show. He mentions this more directly in an interview with Aleksei Takenouchi (1987):

> AT: Can you talk something about the relationship between the performer and the composer? To what extent are liberties allowed?

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[556] Shannon plays "Agnus Dei" much faster than the notated tempo.
[557] Jeffrey Jacob's email to the author on 13 April 2014.

> GC: I would say that in my music, the liberties are allowed in exactly the same proportions as they would be allowed in Chopin…in other words, there is room for the performer…[558]

In fact, under certain circumstances, Crumb was open to a quicker tempo than his notated tempo suggests. He approved of Jacob's recording of "Agus Dei" in which the tempo is much quicker than a demisemiquaver =76:

> Crumb approved of my faster tempo for "Anus Dei." Here again, I think the reverberation of the hall with the amplification is a crucial deciding factor. If the sound carries, the tempo can be slower, but for relatively dry halls, a somewhat faster tempo is more appropriate.[559]

6.2.4 Mechanistic versus Artistic Performance?

Crumb sometimes allows liberties; in other occasions he expects his music to be performed exactly as written. In which cases, is the relatively strict rendition of his score necessary? Bonus reports that pre-twentieth-century composers and performers, such as Johann Nepomuk Hummel (1778-1837), Hector Berlioz (1803-1869), and Joseph Hoffmann (1876-1957), regarded metronomically controlled rhythms as artificial, cold, and inexpressive.[560] Playing that forgoes metronomic precision is more likely to be perceived as natural, warm, expressive, and artistic. Within this dichotomy of style, where does the performance of music that seeks to express the timelessness of cosmic time lie?

The pianist and conductor Daniel Barenboim states, "In music we express *emotion* by broadening or accelerating the tempo, by changing the volume, the quality of the sound and the articulation, which means lengthening or shortening certain

[558] Takenouchi, 252.
[559] Jacob, a personal email correspondence with the author on 18 April 2014.
[560] Bonus, 86, 166, 144.

notes."[561] In the comparative analysis, I have suggested that Hudicek's rhythmically inconsistent performance of "The Magic Circle of Infinity" may raise an awareness of the pressure of time in the listener. Similarly, the changes of dynamics and tempi in Mead's and Hudicek's performances of "Spiral Galaxy" will also influence the listener's perception by suggesting the approach of a climax and an ending. Such subjective deviations from the score may be associated with artistic expressions and emotions, but may not be appropriate for the expression of cosmic time which is infinite and endless.

The performer's careful observation of the notation is necessary for the projection of Crumb's cyclic time. However, depending on the acoustics of the hall, a flexible approach may also be required. The performer's understanding of how to create an unchanging, permanent mood through careful control of rhythm, tempi, dynamics, phrasing, and pedalling is indispensable to the communication of "vertical" time.

6.3 Takemitsu's *Rain Tree Sketch*

6.3.1 Comparison of Recordings: the Relationship Between Rhythm, Tempo, and Timbral Changes

Takemitsu incorporated the performance practice and aesthetics of the Japanese concept of *ma* into his music. He also wished his pieces to be performed without the traditional German sense of rhythm. This is influenced by his attention to timbre which "arises during the time in which one is listening to the shifting of sound"[562] and by the Japanese view of nonlinear, immeasurable time.

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[561] Daniel Barenboim, *Everything is Connected: The Power of Music*, edited by Elena Cheah (London: Phoenix, 2009), 16. Emphasis mine.
[562] Takemitsu, "My perception of time in traditional Japanese music," 10.

To consider how a good *ma* can be expressed in *Rain Tree Sketch*, five recordings by Kazuoki Fujii (1982), Roger Woodward (1990), Noriko Ogawa (1996), Peter Serkin (2000), and Gerhard Oppitz (2011)[563] from the available discography are compared.[564] The first four pianists had personal contacts with the composer, while Oppitz shows a different approach to notation from the others. Fujii recorded *Lento in due movimenti* under the supervision of the composer himself, and premiered *Rain Tree Sketch* in 1983. Takemitsu often praises Woodward in his writing. In 1971 Peter Serkin performed *Uninterrupted Rest* (1959) at Marlboro Music Festival when Takemitsu was also invited.[565] The pianist and the composer developed a close friendship until the composer's death in 1996, and Takemitsu trusted Serkin as one of the best interpreters of his music.[566] Ogawa's episode with the composer was introduced in Chapter 5.

The chart below shows differences in the performers' choices of tempi. Fujii's recording has the shortest length among these five recordings, 2'50".[567] Woodward

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[563] Kazuoki Fujii, "Rain Tree Sketch," in *Toru Takemitsu Piano Piece,* Fontec Records, FOCD 3202; Roger Woodward, "Rain Tree Sketch," in *Takemitsu Piano Works*, Etcetera, KTC 1103; Noriko Ogawa, "Rain Tree Sketch," *Rain Tree: The Complete Solo Piano Music of Tōru Takemitsu*, BIS, BIS-CD-805; Peter Serkin, "Rain Tree Sketch," in *The Ocean that Has no West and no East*, Koch International Classics, B0004GOW9; Gerhard Oppitz, "Rain Tree Sketch," in *Japanese Piano Works*, Hänssler Classics, W271192.

[564] According to *Takemitsu Tōru Chosakushū*, the recordings of *Rain Tree Sketch* were made by: Kazuoki Fujii, Kumi Ogano, Noriko Ogawa, Yukie Nagai, Peter Serkin, Chitose Oka, Izumi Tateno, Ichirō Nodaira, and Hiromi Okada. Later recordings have been made by Satoko Inoue, Kōtarō Fukuma, Paul Crossley, Megumi Fujita, and Gerhard Oppitz. See Hensyūbu of *Takemitsu Tōru Chosakushu*, "Discography," in *Takemitsu Tōru Chosakushū*, vol. 5, 541; Rovi Corp, "Rain Tree Sketch," <http://www.allmusic.com/composition/rain-tree-sketch-for-piano-mc0002396986> accessed on 6 September 2012.

[565] Kuniharu Akiyama, "Nenpu, Shuyō Sakuhin-shū," in *Takemitsu Tōru no Sekai*, 257.

[566] Takemitsu, "Jikan no Entei (1996)," *Takemitsu Tōru Chosakushū*, vol. 3 (Tokyo: Shincho-sha, 2002), 306.

[567] Fujii's 2004 live recording is made at the first concert of *Takemitsu Tōru Zen-Shitzunaigakkyoku Renzoku Ensōkai: Hibiki no Umi* (a concert series for Takemitsu's

chooses the slowest tempo among others, and the entire performance takes 6'02", more than twice longer than Fujii's recording. The tempi of Ogawa and Serkin are in between these extremes, and the length of their performances are 4'40" and 4'22", respectively. Oppitz's tempo is close to that of Serkin.

Performer	Year	Length
Fujii	1982	2'50"
Woodward	1990	6'02"
Ogawa	1996	4'40"
Serkin	2000	4'22"
Oppitz	2011	4'12"

Table 6.4. Interpretation at variance with Takemitsu's notation of tempo markings

It may be that the different tempi in the recordings reflect the different tempo markings in the three editions (see Chapter 5).[568] This may explain the slowness of Woodward's 1990 recording. Fujii, who plays at MM=100-108, learnt the work from a copy of the manuscript, and hence was aware of the correct tempo markings.[569] Tempo II in the recordings of Ogawa, Serkin, and Oppitz are around MM=100-108; it is not known which edition they used. It is worth noting that performers who worked with Takemitsu, including the conductor Hiroyuki Iwaki, the flautist Hiroshi Koizumi, and Serkin all report being asked by the composer to play at a slower tempo than that indicated in the score.[570] This implies that Woodward's extremely slow tempo can also be valid.

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chamber works). Compared to his earlier recording, Fujii chooses a slower tempo, and the length of the recording is 3'36", longer than the earlier one. After Takemitsu's death in 1996, musicians who had a personal relationship with the composer formed an ensemble group named 'Ensemble Takemitsu,' aiming at documenting how the composer wished his pieces to be performed. Fujii is one of the two pianists of the group. The other pianist is Aki Takahashi.

[568] Cf. See section 5.2.1.

[569] This is confirmed by Chiharu Matsuda, a personal assistant of Fujii in the email correspondence between her and the author on 31 January 2013.

[570] Tachibana, *Sozo* 6, 273-4. Hiroshi Koizumi, "Tōru-san no Sakuhin wa Zenbu Uta (Tōru-san's works are all about songs)," in *Takemitsu Tōru wo Kataru 15 no Shōgen*, 74. Koizumi premiered Takemitsu's *Le Fils des Étoiles –Prélude du ler Acte "La*

The performers show different approaches to the notated rhythm and tempo fluctuation markings. Fujii chooses to execute rhythms as they appear in notation, meticulously observing the duration of each note and rest. He maintains the mathematically correct proportion of note values (e.g., crotchet, quaver, and semiquaver). During rests, the listener can sense that he is *counting* to achieve mathematically "correct" durations. The others allow themselves to have flexible rhythms and tempo fluctuations. However, they differ in how they deviate.

Woodward, Serkin, and Ogawa share a similar approach to rhythmic flexibilities and tempo fluctuations: they stretch time to realize all the markings that produce timbral differences. For instance, Woodward takes a split second before playing the left-hand dyad C#-E at m. 10 to execute a soft accent. At m. 20, he relaxes tempo so that the accented first chord has time to decay and a *diminuendo* towards the second chord can be properly executed. Similarly, Serkin relaxes tempo at m. 10 and adds a *diminuendo* towards the end of the measure to highlight timbral differences. At mm. 9 and 11, the notated lengths of the rests are three semiquavers; however, in his playing the length of the rest at m. 11 is distinctively longer than the other. His rests at m. 6, 13, and15 are slightly longer than the notated lengths. Extra time during rests help him (and the listener) hear the decaying sound. Ogawa delays the last dyad F-A at m. 8 to clearly differentiate it from the immediately preceding, accented dyad E flat-F#. She relaxes tempo at m. 12 so that she has enough time to fully execute the notated *diminuendo*. This could be her response to the four short slurs, each notated above the left-hand notes D-F#-F-C. Takemitsu commented on a short slur while coaching Aki Takahashi on *Rain Tree Sketch II*: the composer asked her to play each

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Vocation" in 1975, *Toward the Sea* in 1981, *Toward the Sea II* in 1981, and *Rain Spell* in 1982. See Mitsuko Ōno, "Sakuhin-Hyō," in *Takemitsu Tōru Chosakushū*, vol. 5, 484-508; Serkin, "Kotoba dewa Setsumei dekinai Koto (things which cannot be explained by words)," 456-8.

note under a short slur "super legato," as she would play a short phrase.[571] In addition, similar to Serkin, Ogawa also uses rests to let sound ring while focusing her attention on the decaying sound.

Oppitz's approach to rhythmic nuances is idiosyncratic. He does not relax tempo at mm. 8 and 10 (where Woodward, Serkin, Ogawa do) but slows down at m. 25, dynamically emphasizing the right-hand melody and chords, instead of highlighting the left-hand three notes accompanying a *diminuendo*. In his playing, the *diminuendo* is not clearly perceivable because of the dynamic balance (or imbalance) between the two hands. At the third part of m. 14, he slows down to give an emphasis on the last chord; contrary to the score, he plays this chord which has a soft accent louder than the immediately preceding chord which has a moderate accent. At mm. 32-33, where *poco stringendo* and *rapidly* are marked, he does not play faster at a noticeable level but considerably slows down at m. 34 to highlight the arrival of the octave A in the low register at m. 35. This sounds *allargando* towards a climax. This rendition is quite different from Serkin, Fujii, and Ogawa who push tempo as notated. (Woodward does not accelerate at mm. 32-33.) Furthermore, Oppitz pushes tempo at several places although the score does not indicate to do so. At m. 1 he accelerates towards the third chord. At m.3 he rushes his left hand, and the last left-hand semiquaver is short, to the extent that it is almost inaudible. At m. 17, he shortens the duration of a rest. At m. 54, he accelerates towards the middle of the measure and slows down before playing the last chord on which a soft accent is marked. (Again, he plays it louder than the preceding chord with a moderate accent.)

Why is Oppitz's approach to rhythm and tempo so different from the others? Compared with Serkin, Woodward, and Ogawa, who pay a special attention to a

[571] Cf. See Chapter 5.3.1.

single sound, timbral differences, and sound decay, Oppitz seem to be more concerned with structure. His tempo fluctuates when he attempts to show a climax and a goal. The speeding up at m. 3 gives the impression that the music progresses towards m. 4 (where *mf* is indicated). Because of this, the first six measures sound like one long phrase with a *diminuendo* towards the end. This tempo manipulation is different from Woodward's slow tempo in which the different colours of an individual sound are clearly heard. This suggests that they have different views on which aspects of the music need to be highlighted in performance. The same can be said for Oppitz's rhythm and tempo manipulations at m. 54. He accelerates towards the middle of the measure and slows down towards the end, making it sound like a short phrase by itself. The others take time between the second and third parts of the measure (marked by dotted lines) to highlight the differences between accented, non-accented, and slurred notes.

It seems that Oppitz is more concerned with the pitch organization as a whole than the timbre of a single sound. This could be why he dynamically emphasizes the right-hand melody and chords at m. 25, why he slows down at m. 34, and why he shortens the length of a rest at m. 17. These dynamic and rhythmic deviations highlight pitches more than the decaying sound during a rest. The durations of fermatas at m. 38-39 in his recording are also shorter than the others (Table 6.5).

Performer	Long fermata (m.35)	Short plus medium fermatas (m.38-39)
Serkin	10'	14'-15'
Woodward	10'	14'-15'
Ogawa	6'	10'-11'
Oppitz	10'	6'
Fujii	4'	8'

Table 6.5. Different lengths of fermatas in the recordings of Serkin, Woodward, Oppitz, and Fujii

The performers' varied approaches to rhythm and tempo illuminate different aspects of time. In Fujii's performance, time flows regularly and mathematically. In Oppitz's performance, time flows towards a climax and a goal. In Serkin's, Woodward's, and Ogawa's performance, time flows irregularly. In Ogawa's performance, the flow of time fluctuates the most, and the density of time seems to increase while *ma* is conveyed through her concentration. The best example of this is at m. 38-39. In a recorded performance, the increase of the density of time is perhaps less obvious; in a live performance, this can be delivered effectively with the performer's minimal body movements during *ma*.[572]

6.3.2 Takemitsu's Idea of Rhythm, *Ma*, and the Ambiguity of Japanese Time in Comparison with the Recordings

The performers differ in their decisions as to what to highlight in performance and in their understanding of how time can be notated as rhythm. How would these approaches be compatible with Takemitsu's idea of time and rhythm?

Takemitsu was interested in the Japanese concept of time that contains "swinging or ambiguity." Thus, time does not flow linearly and "cannot be counted in an equal time span."[573] He explained *ma* as "the duration of a pause in which a performer is waiting for a next sound to come without losing his/her concentration." He believed, "to make the most of *ma* is to listen to many different sounds in it."[574]

Serkin, Woodward, and Ogawa's approach to rhythmic flexibilities and tempo fluctuations seem to conform to the composer's ideal the most. Their performances

[572] See how the tension of *ma* is maintained when the performer (dancer) moves incredibly slowly in *Nohgakushi*, a DVD performance of *nō*, introduced in Chapter 1.
[573] Tachibana, "Takemitsu Toru, Ongaku Sozo e no Tabi 6," 274-5. Cf. see Chapter 5 for the full explanation of the difference between Japanese and Western time and rhythm.
[574] Takemitsu, "Oto, Chinmoku to Hakariaeru hodo ni (1971)," 201.

show a good understanding of the immeasurability of *ma* and the intricate relationship between timbre and rhythm. Serkin considers that Takemitsu's tempo and *rubato* cannot be intellectually planned or fixed on notation, and that the physical actions of the performer can produce the best tempo: "In his music even a basic tempo cannot be instructed. But, in his works, there is a stable pulse. There is always a tempo which can be formed through *rubato*, the *rubato* only hands can achieve."[575] This conforms to the performance practice of *ma*: a good *ma* can be produced not through the performer's mathematical, intellectual calculations, but through sensitivity to timbre and an acute sense of timing.

6.3.3 Whole and Part: Structure or Single Sound

In Chapter 2, Cone's idea of "valid performance" that focuses on the communication of the "rhythmic life of a composition" was introduced. His primary concern in performance is to convey the structure of a work, and he believes that the whole should dictate the parts.[576] Disagreeing with Cone, Cook argues that there are occasions in which the performer should not be concerned with making structure (the whole) explicit in performance.[577]

Cone's approach to the whole and the part may not bring the effect that Takemitsu wished to achieve. The Japanese critic and anthropologist Shūichi Katō (2007) observes that in Japanese culture the part is not the division of the whole and that *ma* represents the Japanese emphasis on the now, the part.[578] Takemitsu's music concerned with *ma* needs this attention to the part.

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[575] Serkin, "Kotoba dewa Setsumei dekinai Koto," 458.
[576] Cone, 38-9. Cf. See Chapter 2 for the full discussion of Cone's valid performance.
[577] Cook, *Beyond the Score*, 92. Cf. See Chapter 2.
[578] Katō, 235. Cf. See Chapter 2 for Kato's view of the whole and part in Japanese culture.

Listening to timbre requires the performer to concentrate on "the shifting of sound" without being restricted by the exact durations of notes and rests in notation, the mathematically correct proportions, and the flow of objective, absolute time. Margaret Mary Barela (1979) asserts, "Rhythm is a proportional phenomenon. Rhythmic grouping is a *mental fact*, not a physical one." In Takemitsu's view, "It should not be called *ma* when the idea was consciously in your mind. This is because it would become a quite measurable or controlled object.'"[579]

In the performance of *Rain Tree Sketch*, mathematically performed rhythms and shaping phrases towards the end do not convey the essence of Takemitsu's music which is primarily concerned with the timbre of each single sound.[580] The performer's awareness of this may be the most vital factor in the communication of nonlinearity in Takemitsu's music.

Conclusion

Comparative analyses of recordings suggest that the performer's understanding of the notated music, awareness of performance practice associated with a work, and the interpretive decisions that they make are factors influencing the communication of various concepts of time and temporalities to the listener.

The first movement of Cage's *Haiku*, which lacks dynamic markings, is open to different interpretations. When the performer chooses to add dynamic differences, subtle rhythmic nuances, and tempo fluctuations which all clarify the phrase structure, the linearity of the piece can be highlighted. On the contrary, a performance with no dynamic differences or tempo fluctuations presents the movement as music that communicates stasis and thus nonlinearity.

[579] Issiki, 106. Cf. See Chapter 2.
[580] Tachibana, "Takemitsu Tōru, Sōzō 6," 275-76.

Cage's *Seven Haiku*, which uses time-space notation and absolute time as part of rhythmic organization, yields a few interpretive possibilities. It challenges the performer's physical ability, and different realizations may affect the listener's perception of the temporality of the work. The performer may choose to be faithful to the specified durations of notes and rests by the composer (by the result of chance operations). This can be achieved by clear attacks and releases of keys and pedals that show the beginning and ending of musical events. This performing style highlights the composer's obsession with mathematical, technological time, thus illuminating the linear aspect of the work. In a live performance, this can be shown visually through the use of a stopwatch or a display of the score. The performer may choose to demonstrate that performing is an artistic act by disregarding the notation demanding mechanical rhythmic precision and by performing with *musical* expressions, such as rhythmic nuances and clear dynamic differences. This performing style evokes the nonlinear temporal world of a haiku poet.

In Crumb's *Makrokosmos I & II*, the composer's notation determines every aspect of performance, i.e., pitch, rhythm, tempo, articulation, dynamic, pedalling, and phrasing. The performer's careful observation of the composer's markings is indispensable for the projection of the "timelessness" of time. In particular, maintaining rhythmic precision and soft dynamic level is essential for the expression of the musical stasis and "vertical" time conveyed in the three "cyclic" pieces. Inaccurate rhythm and uncontrolled dynamics may result in drawing the listener's attention to changes. This prevents the listener from hearing the sonority of the whole texture and distracts from the music's unchanging mood. Although it is not apparent in notation, rich reverberation is also necessary to convey the idea of "unbroken" timelessness that has no beginning and no end, or the idea of space that has no

boundary. Dry acoustics will not sufficiently carry sounds through a fermata (a rest), resulting in the indication of the beginning and ending of a sound or a phrase.

Takemitsu's notation does not explicitly communicate the intricate relationship between time and timbre that he wished to explore. Therefore, the performer's approach to the composer's rhythmic notation as well as dynamic and articulation markings greatly influence the overall character of the music, and thus the performer's interpretation of the music affects the listener's perception of the temporality of his work. The performer may choose to perform *Rain Tree Sketch* with metronomically and mathematically precise rhythm and without tempo fluctuations or to highlight the structure and formal coherence of the work by shaping phrases. This performing style shows the performer's awareness of objectively observed time, but it may not communicate the essence of *ma*, that is, to focus on the moment (the part) and to find (or sense) meaning during the moment in which nothing is happening.[581] The performer's special attention to the composer's markings affecting timbre and spontaneous response to timings may be more successful in conveying the composer's attention to a single sound and to the concept of immeasurable, elastic time. The listeners may perceive the performer's focus on the moment as an increase in the density of time.

[581] Cf. see Chapter 2 about Zeami's famous saying, "*Senu tokoro ga omoshiroki*."

Chapter 7: CONCLUSION

Introduction

In this thesis, I have argued that a performer's interpretation can profoundly influence the listener's perception of different concepts of time and the temporalities of a musical work. The thesis has also examined how each of the three composers was influenced in their exploration of nonlinearity in music by Asian music and culture through theoretical discussions of piano works of John Cage, George Crumb, and Tōru Takemitsu, and a comparison of recordings. I have sought to answer two main questions: how did the composers' assimilations of a variety of concepts of nonlinear time evolve into different types of nonlinearity, and what kind of implications do these have for performance? The analysis has made extensive use of Jonathan Kramer's model of temporalities. I have dealt in some depth with relation between the performative elements of musical works and the listener's temporal perception, a subject which has not been previously fully investigated in the study of musical time and temporality.

The chapter first reviews key findings and then addresses the contributions and theoretical implications of the study. Finally, the limits of the study and possible directions for further research are discussed.

7.1 Key Findings

7.1.1 Asian Influence and Nonlinearity

All three composers were interested in Asian music and philosophy. This influenced their understanding of time and space as well as their compositional techniques and styles. However, the specific aspects of Asian music and philosophy

which interested them, how these were incorporated into their works, and how their music "represents" differs considerably for each composer.

In *Haiku* and *Seven Haiku*, Cage aims to express the non-consecutive, nonlinear temporal world of the Japanese haiku that he learned from Blyth's *Haiku*. His study of haiku gave him a new insight into form, in his words, "the morphological line of the sound-continuity" in which "each moment presents what happens."[582] In this temporal realm, musical events are not required to have a sequential relationship. Suzuki's lecture on *Kegon* and the concepts of "unimpededness" and "interpenetration" further influenced Cage's understanding of time and space, making him realize that the world was constructed upon the incalculable infinity of cause and effect. Cage attributes the keywords "unimpededness" and "interpenetration" to Zen philosophy. As these are in fact concepts of *Kegon* philosophy, it raises the question of whether or not Cage understood Suzuki's lectures properly. Nevertheless, these concepts were useful for Cage in validating his chance operations as employed in *Seven Haiku* and in the new musical continuity created by this compositional technique.

Takemitsu was interested in the Japanese view of cyclic time and the concept of *ma*. The former is expressed aesthetically in the form of *Rain Tree Sketch*, *Rain Tree Sketch II*, and *Orion*. The reappearance of the opening sections in all three pieces can be understood as Takemitsu's musical conceptualization of the circular path in the Japanese garden, where strollers come back to the starting point. The Japanese appreciation of *ma* can be seen in his use of rests and fermatas as well as his exploitation of subtle timbral changes and sound decay. The performance practice of *ma* and the idea of time as immeasurable are also incorporated into his music. In

[582] Cage, "Defence of Satie," 78; *Silence*, 111.

Japanese traditional arts and music, the length of a good *ma* is understood as a scientifically or mathematically indefinite duration. This aesthetic and performance practice appear to underlie Takemitsu's sense of rhythm, which he jokingly calls his "rhythmlessness" or "tempolessness"; he expected every beat to be performed with unequal lengths. Although *Orion* is written with meters, the music does not project any sense of metrical rigour or strong rhythmic impulse. His inclination towards non-Western rhythm in performance and non-alignment in ensemble playing is also evidence of a rhythmic ideal which conforms to the concept of *ma* and embraces the ambiguity and elasticity of time.

In comparison with the other two composers, Crumb was less involved in Asian studies. Nevertheless, he acknowledges that his use of drones was influenced by the Indian music that he frequently heard at the University of Pennsylvania. He also assimilated "time-suspension" created by a slow or almost imperceptible harmonic movement in Asian music. His reading of Indian mythologies and the religious symbol *mandara* had a philosophical impact on his understanding of time as cyclic. This is reflected in his use of circular notation. In *Makrokosmos I & II*, these influences are most obviously shown in the verbal description "suspended endless time," circular notation, and an unchanging mood created by the sonority of a whole-tone scale in "Agnus Dei."

The three composers used Asian references differently in their writings. Both Cage and Takemitsu frequently referred to Asian music or philosophy when explaining their compositional aesthetics and styles in writings and interviews, while Crumb did not make such Asian influence explicit in his programme notes. Moreover, Crumb represents Asia as having two contrasting images; static and calm in "The Mystic Chord" and evil and violent in "Tora! Tora! Tora!". In contrast to Crumb's

dualistic approach, Cage and Takemitsu used Asian reference to suggest nonlinearity as the antithesis of European linear progression. These differences derived from how these composers wished to represent themselves in the twentieth-century musical milieu: both Cage and Takemitsu seem to have used Asia to establish an identity or public image as a new, pioneering composer, while Crumb, perhaps because of his European educational background, did not wish to associate himself and his music solely with Asia.

Different types of nonlinearity emerged from the concepts of nonlinear time in the works of the three composers. The temporality of Cage's two haiku works can be best explained by Kramer's "moment" time. In these works, musical continuity is constructed upon a succession of self-contained musical events or "moments." However, at the same time, the tonal reference and stepwise melodic motion of "Haiku I" (from the first *Haiku*) and the composer's use of absolute time in *Seven Haiku* both suggest linearity. Crumb's fascination with "time-suspension" evolved into the music that displays features of Kramer's "vertical" time. In *Makrokosmos I & II*, this type of nonlinearity can be heard in "Spiral Galaxy," "The Magic Circle of Infinity (Moto Perpetuo)," and "Agnus Dei" in which the composer's idea of the "timelessness" of time is expressed as cyclic time. The music is constructed upon the minimalistic use of pitch and pitch-class sets and cyclic repetitions of musical ideas. The musical events produce a single, unchanging mood, which can be perceived as musical stasis. In "Dream Images (Love-Death Music)," the composer exploits another conception of nonlinear time: the time that does not regularly flow from past, to present, to future. In this piece, the coexistence of past and present is conveyed through the juxtaposition of the quotation of Chopin's *Fantasie Impromptu* and Crumb's original composed material. In "The Mystic Chord," nonlinearity is

suggested through the juxtaposition between change and stasis. The characteristics of these two pieces also display features of "moment" time. The form of Takemitsu's two *Rain Tree Sketches* and *Orion* might suggest features of linearity because of the recapitulation of the opening idea, and in Kramer's terms the temporality of these works could be categorized as "non-directed linear" time. However, Takemitsu's idea of cyclic time and the immeasurability of *ma* may be regarded as the attribute of "moment" time.

7.1.2 Implication for Performance

The different concepts of time and types of temporalities raise the question of the relationship between notation and performance. All three composers were interested in a conception of time as an entity that has no clear beginning or ending. This idea influences the performer's decision of how to deal with structure and endings, e.g., the end of a sound, a phrase, or a section. Edward Cone asserts that the performer's ultimate job is to make the structure of a musical work explicit to the audience (see Chapter 2). One of the ways to achieve this is to slow down at the end of phrases. According to Sandra P. Rosenblum (1988), this performance practice is evident in the teaching of Carl Czerny (1791-1857) with respect to the performance of Beethoven's works.[583] Franz Liszt and Frédéric Chopin frequently write this type of *ritardandos*, e.g., *poco rit* at mm. 5 and 11 in Liszt's *Après une lecture du Dante*, and *ritenuto* at mm. 6-7 in Chopin's *Ballade*, no.4, op. 52. Others also believe that slowing down at the end of phrases is an appropriate practice even when tempo

[583] Sandra P. Rosenblum, *Performance Practices in Classic Piano Music: Their Principles and Applications* (Bloomington and Indianapolis: Indiana University Press, 1988), 371. In the endnote, she refers to the musical examples located on pp. 29, 33, 35, etc in Czerny's *On the Proper Performance of all Beethoven's Works for the Piano*, edited by Paul Badura-Skoda (Vienna: Universal Edition, 1970).

fluctuation markings are absent from the score: Vitaly Margulis (2002) advises, "Incorporate ritardando sparingly at cadences."[584] Nicholas Cook (2014) calls this performance practice "phrase-final lengthening (slowing down at the end of phrases),"[585] and observes that in Artur Schnabel's 1950 recording of Schubert's *Impromptu*, op. 90, no. 3, clarity of structural articulation is achieved through "phrase-final lengthening."[586] Bruno Repp (1994) also considers that expressive performances generally include "phrase-final lengthening" and caesurae.[587] The evidence indicates that performers have historically been *trained* to add such *ritards* to articulate structure. This may explain why Jovita Zähl's performance of Cage's first *Haiku* (in which phrase structure is clearly shown) exhibits a sense of linearity more than that of Steffen Schleiermacher (in which structure is not articulated). The same can be said about Oppitz's *allargando* in Takemitsu's *Rain Tree Sketch*, which gives an impression of the music arriving at a goal. Oppitz's slowing down is contrary to the composer's markings suggestive of the Japanese rhythm of *jo-ha-kyū*. The "phrase-final lengthening" does not suit the expression of Crumb's cyclic time (Kramer's "vertical" time): the recordings by the performers who incorporate this performance style seem less successful in projecting the idea of the *endless*.

How the composers dealt with the measurability of time influences the performer's interpretation of the notation of rhythm. In *Seven Haiku*, Cage presents the idea of time that "starts and stops" with the use of absolute time. This can be

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[584] Margulis, 149.
[585] Cook, *Beyond the Score*, e.g., 74. He also argues that previous generation pianists did not follow this rule, but they rushed towards cadences. See pp. 113-5 for the discussion of structural and rhetorical performances.
[586] Ibid., 86.
[587] Ibid., 83. Bruno Repp, "On Determining the Basic Tempo of an Expressive Music Performance," *Psychology of Music* 22, 157-67. Cited by Cook.

effectively communicated in performance when the beginnings and endings of musical events are clearly shown by the pianist's touch and quick release of keys and pedals.[588] This performing style, explored by Cage, makes performers alert to the durations that are indicated in the score and dictated by chronometric time. It is therefore an influence on their mental and physical approaches to the music and the instrument. The French pianist and pedagogue Jean Fassina (2000) explains that the way pianists (in their mind) listen to the music they are about to perform determines the appropriate finger movements that produce the sound they imagined.[589] When musical time is restricted by chronometric time, this process is undermined: if the performer concentrates only on hitting and releasing keys at mathematically correct timings while watching passing time on a stopwatch, their mental and physical preparation time becomes shorter, and the speed of pressing and releasing keys becomes quicker. This affects the sound produced on the piano, thereby giving the performer less time to express their emotions. This results in the neat, crispy, precise performance style pointed out by Tilbury (see Chapter 6).

Takemitsu incorporated the idea of immeasurable time into his music. In his writing, the notated lengths of musical events, both note and rest, are not mathematically proportioned durations, but approximate, variable durations. According to Takemitsu, *counting* does not produce a good *ma*. This implies that Fujii's *counted* rests are not the real representation of how *ma* works in performance. Cone's method of deciding the part in relation to the whole may thus not be appropriate in the performance of Takemitsu's music.

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[588] This is opposite to the way both Crumb and Takemitsu exploited unending sonorities by the use of a damper pedal to blur the beginning and end of musical events to express nonlinearity.

[589] Jean Fassina, *Lettre à jeune pianiste*, translated into Japanese by Hiroko Ehara and Utako Kurihara (Tokyo: Ongaku-no-tomo-sha, 2004), 61. Translation mine.

An intuitive approach to notated durations might not be compatible with Crumb's idea of time, as he continues to believe that time is measurable and expects the performer to observe mathematically correct rhythmic proportions. This is evident in his performance directions, "mechanically precise rhythm" in "The Magic Circle of Infinity," and his use of numbers (absolute time) to define the duration of fermatas.[590] However, Crumb, like Takemitsu, exploited unending sonorities created by the constant use of a damper pedal. This suggests that despite his detailed notation, he does not exclude the performer's sensitivity to sound in the expression of nonlinear time.

7.2 Contribution and Theoretical Implication

7.2.1 Contribution to Each Subject Area

As discussed in Chapter 2, Blyth's influence on Cage has not been much studied. The analysis of Blyth's *Haiku* in Chapter 3 discussed how his representation of the Japanese haiku as an art form of Zen and his explanation of the form of the haiku as illogical and non-consequential influenced Cage's understanding of continuity and form. Cage's unreliable memory and previous Cage scholarship have caused confusion about the exact dates of Suzuki's lectures at Columbia. Suzuki's diaries, studied for the first time, show that his official lectures took place in March 1951. The diaries also suggest the possibility that Cage attended Suzuki's lecture at the Asian Institute in December 1950. Suzuki's transcript of one of the lectures on *Kegon* in March 1951, another previously unexplored source, discusses two keywords, "unimpededness" and "interpenetration" as *Kegon* concepts. This corrects

[590] Of course, there are some exceptions. For instance, there is a fermata without a number in the fourth line of "Dream Images." As discussed in Chapter 6, the composer allows the performer some freedom.

the misconception caused by Cage and Cage scholars that these words derive from Zen concepts. The analysis of *Haiku* and *Seven Haiku* suggests that Cage's understanding of time and space was influenced first by Blyth and then by Suzuki.

It has been considered that Crumb's idea of the timelessness of time stems from the music of the music of Debussy and Stravinsky. The influence of Asian ideas and music has not previously been studied. Chapter 4 discussed that Crumb's exploration of Asian music and philosophy influenced his use of drone and slow harmonic movements and his understanding of cyclic time as the antithesis of linear time. Moreover, previously, scholars have associated "timelessness" only with the idea of non-progressive time; the analysis of Crumb's programme notes indicates that his image of timelessness is also linked to an image of a distant past, measureless time, infinite space, and a dream. Furthermore, in the discussion of timelessness in *Makrokosmos I & II*, "The Magic Circle of Infinity" has been neglected; in this thesis, it has been discussed as one of the cyclic pieces based on the composer's sketch of the two volumes showing his initial plan to present "The Magic Circle of Infinity" and "Spiral Galaxy" as a pair, sharing the same idea but contrasted in terms of speed. Three means of expressing "timelessness" were identified (see 7.1.1).

Takemitsu scholars located the concept of *ma* in his use of silence (rest and fermata); Chapter 5 highlighted performative aspects of this concept and showed that the performer's tempo fluctuations and flexibility of rhythm as well as attention to decaying sound are indispensable for conveying the essence of *ma*. Interviews with the composer, available only in Japanese, were consulted in order to clarify Takemitsu's ideas of rhythm and time in performance. In addition, investigation of the three editions of *Rain Tree Sketch* showed that the metronome markings in the first two editions were later modified, and that the third edition gives the correct markings.

Chapter 6 offered an insight into how a performer's interpretation may affect the listener's perception of the temporality of a work. Previously, scholars and composers, such as Meyer, Rochberg, and Morgan, discussed only notated elements as determinants of musical temporality. However, the comparison of recordings suggested that although the composer may intend to construct a certain type of temporality, the listener's understanding of the temporality of a musical work may be influenced by their perception of a specific performance. The interpretation of the performer may also be influenced by performance practices or cultural conventions, such as "phrase-final lengthening" or a belief in the measurability of time. This awareness accords with Kramer's definition of time as "a *relationship* between people and the events they perceive."[591]

7.2.2 The Notation and Performance of Twentieth-Century Music

The investigation of the three composers' notation and the comparison of the performers' interpretations calls into question the belief that an accurate rendition of all the indication in the score is sufficient for "an authentic projection of the composer's intentions" when dealing with the music of Anton von Webern and post-Webern composers (see Chapter 2).[592] Close observations of the composer's markings are a prerequisite for building an interpretation of a musical work; however, following them blindly does not necessarily guarantee the intended outcome. Three possible reasons for this are suggested: 1) the score does not contain all the information necessary for the realization of the composer's imaginary sonic world; 2) the composer's markings are valid only under certain acoustic conditions; 3) the composer's markings demand skills beyond the limit of human capabilities. The first

[591] Ibid., 5-8.
[592] Smalley, 75. See Chapter 2 for a longer quote.

case can be seen in the music of Takemitsu and Crumb: Takemitsu's notation does not fully communicate the aesthetics and performance practice of *ma*, nor does Crumb's notation inform the performer of the importance of having rich reverberations. Stephen Davies raises this point, concluding that "[t]he proper interpretation of a score requires knowledge both of conventions for the notation and of the performance practice shared by the composer with the musicians to whom the score is directed."[593] The second case is illustrated by the comment of the pianist Jeffery Jacob on the relationship between Crumb's metronome markings and the acoustic condition of a hall: Crumb approved of Jacob's performance at faster tempi than those indicated by the notated markings because the dryness of the hall did not sustain the sound as Crumb had intended.[594] Similarly, Robert Shannon in a recording supervised by Crumb plays Part D of "Agnus Dei" faster than the notated tempo. The third case can be seen in Cage's *Seven Haiku*. The timings calculated mathematically and controlled by absolute time are not always achievable in performance. Thus the performer has two options: not to attempt to conform to Cage's notation or to negotiate the impossibilities and try to achieve approximately proper timings.

The third case also offers an opportunity to consider a question about performance ideal, addressed by Lydia Goehr: should the performer solely concentrate on a realization of the score or should they seek for alternatives? There is no straightforward answer to this question. The performer may choose to be faithful to the score with the objective of fulfilling the composer's intention as nearly as possible. They may instead choose to disregard the composer's instructions or to add extra expression if they believe that doing so justifies the performer's right and

[593] Davies, 3. Also see Chapter 2 for a longer quotation.
[594] See Chapter 6 for this discussion.

responsibilities.[595] The performer's ethos, reading of the score, and decision-making may be influenced by a programme or a context in which a work is played. All of these result in a variety of interpretations, enriching musical culture.

7.3 Limitation of the Study and Recommendations for Further Research

As acknowledged by Kramer, the perception of time and musical temporalities are personal. Thus my comparative analyses of recordings reflect my subjective, personal understanding of these concepts and my intuitive reaction to a flow of time. My cultural as well as educational background may have affected the way that I listened to performances. This study excludes phenomenological issues relating to the listener's temporal perception in musical performances, an area of study which lies in the realm of music psychology.

The thesis is limited to the music of Cage, Crumb, and Takemitsu. It would be worthwhile to investigate the music of other twentieth-century composers, such as Olivier Messiaen, Kahlheinz Stockhausen, and Morton Feldman who were interested in the concepts of nonlinear time and nonlinearity.

The research has raised questions regarding Cage's understanding of Suzuki's lectures and chance operations. Did he genuinely misunderstand the two key concepts "unimpededness" and "interpenetration" as Zen teaching or did he manipulate the information for the sake of promoting himself as an *avant-garde* composer? What does the perfect ratio 5:7 appearing in the first movement of *Seven Haiku* imply? Was it a lucky coincidence or his manipulation of the results of chance operations? These questions are worth further investigations.

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[595] See Chapter 2 for the discussion of how Cage's haiku works are performed differently.

Conclusion

The composer's exploration of the concepts of nonlinear time and nonlinearity challenges the boundary between subjectively and objectively experienced time, heightening awareness of such a boundary for both performers and listeners. This is a complex subject involving cultural as well as musical aspects of time. As such, it presents a rich field of study which would benefit from investigations of researchers from different cultural and educational backgrounds. I hope this study has given analysts and performers an opportunity to ponder on the intricate relationship between music and time.

APPENDIX I: Different Definitions of Time in English and Japanese

The word "time" itself does not have a universal definition across cultures and languages. In *Grove Music Online* "time" is defined as:

> (1) A synonym or shorthand for musical metre, as in '6/8 time'.
> (2) A general term to designate the rhythmic acuity of a performance or ensemble, as in 'playing in time'.
> (3) The essential medium for music and musical performance, a non-spatial continuum of past, present and future in which music exists and is understood. Music requires no material substance, nor can one circumscribe any set of sounds as inherently musical (an others as inherently non-musical), but all music must occur in time.[596]

In the *Merriam-Webster* dictionary, "time" is:

> 1 a: the measured or measurable period during which an action, process, or condition exists or continues: DURATION
> b: a nonspatial continuum that is measured in terms of events which succeed on another from past through present to future.…
> 10: finite as contrasted with infinite duration

In summary, time in English denotes that it is the entity that *regularly* flows (as suggested in "6/8 time" in *Grove Music*), is measurable (*Merriam-Webster*), countable, controllable, and agreeable when dealing with rhythmic precision (*Grove Music*), and progressive (*Grove Music* and *Merriam-Webster*). Since "time" is defined as finite (*Merriam-Webster*), the antonym "timelessness" exists.

In contemporary Japanese, the definition of time/*jikan* (時間) is:

> 1. The duration between a point of time (時刻) and another point of time.
> 2. A moment marked in a flow of time….
> 5. In philosophy…it has three different states, past, future, and flows in one direction, and irreversible.[597]

Unlike that of *Merriam-Webber*, the Japanese definition does not refer to the measurability of time, whilst the English definition of time as "a nonspatial continuum which flows from past to future" is treated only as a *philosophical*

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[596] London, "Time," *Grove Music Online*.
[597] <http://www.weblio.jp/content/時間>, accessed on 8 June 2015.

definition of time in the Japanese dictionary.[598] In Buddhism, units of time (*gō* and *setsuna*) are unmeasurable, and time can be most meaningfully experienced as the moment of *satori*. These philosophical concepts underlie the Japanese definition of time.

[598] This is probably the word *jikan* appeared as the translation of time in the first Japanese encyclopedia of philosophy *Tetsugakujii* (1881) unlike the original translation as *toki* and *jikoku* (時、時刻) at the beginning of *Meiji* era (1862-1912). According to the Japanese dictionary *Daijirin*, at the beginning of the English word "time" was translated as *toki* and *jikoku* (時、時刻).

APPENDIX II: Cage Literature

This section introduces some important texts which were not included in the main chapters.

Style and Compositional Techniques

Cage's teacher Henry Cowell (1934), with whom Cage studied at the New School of Social Research, summarises Cage's style:

> Cage, taking the side of mastery of materials, and very correctly assuming that expression is not something to be striven for, but may come unconsciously in the creation of a perfect structure, nevertheless falls into the conventional attitude of objecting to the intellect in music.[599]

Lou Harrison (1946) refers to Cage's "'square-of-the-phrase' idea, a concept that begins with the distinction of chronological time as separate from psychological time." Harrison sees this as the most characteristic feature in the composer's music.[600]

Virgil Thomson (1952) considers Cage's prepared piano as his "most original contribution to music," describing it as "the most sophisticated method available in the Western world for composing with purely rhythmic elements and without the aid of tonal scales."[601] Robert Charles Clark (1970) compares Cage's chance operations with the music made of "total control" (i.e., total serialism) and argues that there is no audible difference between the two types of music.[602] James Pritchett (1988) consults David Tudor's copy of *Concerto* for prepared piano and explains the composer's use

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[599] Henry Cowell, "Double Counterpoint," *Dune Forum* 1, no. 3 (15 March 1934), reprinted in *Writings about John Cage*, edited by Richard Kostelanetz, (Ann Arbor: The University of Michigan Press, 1993), 19.
[600] Lou Harrison, "Ajemian-Masselos," *New York Herald Tribune* (11 December 1946), reprinted in *Writings about John Cage*, 19.
[601] Virgil Thomson, "The Abstract Composer," *New York Herald Tribune* (5 February 1952), reprinted in *Writings about John Cage*, 73-4.
[602] Robert Charles Clark. "Total Control and Chance in Musics: A Philosophical Analysis," *The Journal of Aesthetics and Art Criticism*, 28, no. 3 (Spring, 1970): 355-360.

of "rhythmic structure" and chance operations in the work.[603] Christopher Shultis (1995) discusses the composer's use of silence both in his music and in his writing.[604] Douglas Kahn (1997) points out that Cage's silence cannot exist without him silencing the audience and the performer.[605] David W. Bernstein (2001) explains how appropriation played an important role in the composer's style in such works as *Cheap Imitation* (1969), *The Songbooks* (1970), *Apartment House 1776* (1976), and *Europeans* (1987-1991).[606]

Cage's music has often been discussed in the context of musical time and temporality. Christian Wolff explains Cage's rhythmic structure in his article "On Form" (1960).[607] Rochberg (1963) and Meyer (1963) briefly refer to Cage's idea of "no continuity."[608] Wilfrid Mellers (1964) describes Cage's music as "spatial rather than temporal" because of its lack of melody and harmony "in the traditional sense."[609] These scholars consider that the composer's interest in Zen Buddhism (and Asian philosophies) affected his idea of time and space. Daniel Charles (1965) discusses Cage's handling of form, comparing it to European composers' techniques, particularly that of Boulez.[610] He is reluctant to accept Cage's attitude towards form because it lacks rigidity. Deborah Ann Campana (1985) analyzes Cage's music with

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[603] James Pritchett, "From Choice to Chance: John Cage's Concerto for Prepared Piano," *Perspectives of New Music*, 26, no. 1 (Winter, 1988): 50-81.
[604] Christopher Shultis, "Silencing the Sounded Self: John Cage and the Intentionality of Nonintention," *The Musical Quarterly,* 79, no. 2 (Summer, 1995): 312-50.
[605] Douglas Kahn, "John Cage: Silence and Silencing," *The Musical Quarterly*, 81, no. 4 (1997): 557-98.
[606] David W. Bernstein, "Techniques of appropriation in music of John Cage," *Contemporary Music Review*, 20, no. 2 (2001): 71-90.
[607] Christian Wolff, "On Form," *Die Reihe* 7 (1960), reprinted in *Writings about John Cage*, 58.
[608] Rochberg, "The New Image of Music"; Meyer, "The End of the Renaissance?"
[609] Wilfrid Mellers, "From noise to silence: Harry Partch, John Cage and Morton Feldman," in *Music in a New Found Land* (London: Barrie and Rockliff, 1964), 169-193.
[610] Daniel Charles, "Entr'acte: 'Formal' or 'Informal' Music?" *The Musical Quarterly,* 51, no. 1 (Jan, 1965): 144-165.

special attention to form and the organization of musical time.[611] Daniel Charles (1989-1990) considers that Cage's assimilation of Zen ideas contributed to the construction of "de-linearizing musical continuity."[612]

Cage's Aesthetics and Political Point of View

Cornelius Cardew (1974) attacks Cage, asserting that *Music of Changes* promotes a bourgeois class view, individualism, anarchism, and reformism.[613] Stewart Buetter (1981) argues that, by learning from Eastern philosophy, Cage was able to "bridge dualism that would seem irreconcilable to most Western thinkers."[614] David W. Bernstein (2002) connects the ideas of "unimpededness" and "interpenetration" with Cage's political view on the relationship between the individual and society.[615] Rebecca Kim (2008) argues that the composer presented the theory of indeterminacy as "a cultural specific, nationalized form of experimental music."[616]

Influence of Other Composers on Cage

Michael Nyman (1973) compares the music of Cage and Satie, the French composer that Cage admired.[617] Michael Hicks (1990) examines the relationship

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[611] Deborah Ann Campana, "Form and Structure in the Music of John Cage" (Ph.D. diss., Northwestern University, 1985).
[612] Daniel Charles, "De-Linearizing Musical Continuity: John Cage's Aesthetics of 'interpenetration without Obstruction.'"
[613] Cornelius Cardew, "Criticising Cage and Stockhausen," in *Stockhausen Serves Imperialism* (London: Latimer New Dimensions, 1974), 44-5.
[614] Stewart Buetter, "Cage," *International Review of the Aesthetics and Sociology of Music*, 12, no. 2 (Dec., 1981): 142.
[615] David W. Bernstein, "John Cage and the Aesthetic of Indifference," in *The New York Schools of Music and Visual Arts*, edited by Steven Johnson (New York: Routledge, 2002), 113-134.
[616] Rebecca Y. Kim, "In no uncertain musical terms: The cultural politics of John Cage's indeterminacy" (Ph.D. diss., Columbia University, 2008).
[617] Michael Nyman, "Cage and Satie," *The Musical Times*, 114, no. 1570 (Dec., 1973): 1227-229.

between Cage and his teacher Arnold Schoenberg, while Leta E. Miller (2006) discusses the relationship with the composer and another of his teacher Henry Cowell.[618]

Genre

John Richard Francis (1976) analyzed Cage's solo piano works, Janetta Petkus (1986) discussed his songs, and William Benson Fetterman (1992) focused on his theatre pieces.[619]

Miscellaneous Texts

Christopher Shultis (1996) summarizes the history of Cage scholarship.[620] Ian Pepper (1997) discusses the reception of Cage's music in Germany and has translated articles by Heinz-Klaus Metzger (1959) and Konrad Boehmer (1967).[621]

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[618] Michael Hicks, "John Cage's Studies with Schoenberg," *American Music* 8, no. 2 (Summer, 1990): 125-40; Leta E. Miller, "Henry Cowell and John Cage: Intersections and Influences, 1933-1941," *Journal of the American Musicological Society*, 59, no. 1 (Spring 2006): 47-112.

[619] John Richard Francis, "Structure in the Solo Piano Music of John Cage" (Ph.D. diss., The Florid State University, 1976); Janetta Petkus, "The Songs of John Cage" (Ph.D. diss., The University of Connecticut, 1986); William Benson Fetterman, "John Cage's Theatre Pieces: Notations and Performances" (Ph.D. diss., New York University, 1992).

[620] Christopher Shultis, "Cage in Retrospect: A Review Essay. Here Comes Everybody: The Music, Poetry and Art of John Cage. Mills College, November 15-19, 1995," *The Journal of Musicology*, 14, no. 3 (Summer, 1996): 400-23.

[621] Ian Pepper, "From the 'Aesthetics of Indifference' to 'Negative Aesthetics': John Cage and Germany 1958-1972," *October,* 82 (Autumn, 1997): 30-47; Heinz-Klaus Metzger and Ian Pepper, "John Cage, or Liberated Music," *October,* 82 (Autumn 1997): 48-61; Konrad Boehmer and Ian Pepper, "Chance as Ideology," *October,* 82 (Autumn, 1997): 62-76.

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