

Distillation and Synthesis: Aesthetics and
Practice in Rhys Chatham's Music for
Electric Guitar.

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I declare that the work presented in this thesis is my own,

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Abstract

This is a critical study of music for electric guitars by composer-performer Rhys Chatham (b. 1952), work that distils and synthesises elements from various genres, primarily, minimalism and rock. I investigate the development, realisation, and import of these works, created between 1977 and 2006, in an analytical, biographical, and cultural account that examines unpublished performance directions, scores, and original interviews with this significant, yet under-explored artist and his collaborators. An immanent sublime aesthetic characterises Chatham's formative experiences in downtown music, and I explain how this informs his composition, performance, and listening practices (including attendant issues of entrainment, frisson, and perceptualization). This reading is situated within major music traditions of the later twentieth century and at the forefront of a nexus of postmodern radical pluralism, operating across the borderline of the avant-garde and the popular.

I use a range of research methods: aesthetics, cultural theory, interviews, musical analysis, music theory, and my own experience of performing several of these works. Part One maps Chatham's development as a composer and performer through his engagement with modernist, serialist, electronic, minimalist, improvised, North Indian classical, popular, and rock music between 1952 to 1978, to interpret how he distilled key components of these experiences. Part Two outlines how he synthesised these elements in several non-notated works for the electric guitar, from 1977 to 1982, using idiosyncratic and inventive approaches to composition and performance. Part Three provides in-depth analyses of Chatham's notated music for increasingly large ensembles of electric guitars from 1984 to 2006, to outline the development of his post-Cagean musical language, and interpret the wider import of these works.

I argue that the interpenetration and reciprocity of musical elements in these works expand, and implode, pre-established forms of art and rock music. While this eludes 'either/or' classifications, per se, this is a particular kind of post-minimalism, with significant components of popular music, identifiable as part of a post-1945 culture that was distinguished by immanence, participation, and subjectivity.

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Chapter One: Introduction

This thesis studies Rhys Chatham's music for electric guitars, a distinct body of work from an important artistic figure in the history of twentieth and twenty-first century music, working both within major musical traditions and at the borderline of the avant-garde and the popular. While the composer has created music spanning diverse genres and styles, using a variety of instrumentation, I will focus on his distinctive and innovative compositions for multiple electric guitars combining notable minimalist and rock components – the work he is best known for, and which has hitherto been largely overlooked by scholarly research.

I will investigate how Chatham distils elements from a variety of musical forms, and synthesises these together through a radical pluralist approach. Tim Lawrence identifies this pluralism as characteristic of the vanguard music in New York's 'downtown' scene from the late 1970s onwards.¹ My reading situates Chatham's artistic practice in a heterogeneous field, eluding simple categorisation in the discourses and narratives of a mainstream, or 'major' culture, characterised by hegemony and hierarchy. To study his protean endeavours across musical genres, I extend Branden W. Joseph's application of Gilles Deleuze's concepts of a 'minor history' and 'minor artist' to the post-Cagean arts directly to the composer's work.² This rationale frames a study of Chatham's body of work for the instrument – informed also by my own experience performing several of these works alongside the composer – to present aesthetic and practical insights into the music. Thus, I contextualise the origins of Chatham's 'borderline aesthetic', as Bernard Gendron terms the work of the composer and his peers, operating between classical and rock music from the late 1970s onwards.³

¹ Tim Lawrence, 'Pluralism, Minor Deviations, and Radical Change: The Challenge to Experimental Music in Downtown New York, 1971–85' (2014) in Benjamin Piekut (editor), *Tomorrow is the Question: New Directions in Experimental Music Studies* (Michigan: University of Michigan Press, 2014), 63-85.

² Branden W. Joseph, *Beyond the Dream Syndicate: Tony Conrad and the Arts after Cage* (New York: Zone Books, 2008), 48-52.

³ Bernard Gendron, *Between Montmartre and the Mudd Club: popular music and the avant-garde* (Chicago: University of Chicago Press, 2002), 291-296.

There are two broad compositional approaches taken by the composer in his music for electric guitars. Firstly, the non-notated music (from 1977 to 1982) uses verbal instructions in performance, and in the last decade, these instructions were written down as performance directions.⁴ Secondly, the notated music (from 1984 to 2006) uses scores to organise six to four hundred musicians.⁵ Chatham's solo electric guitar exploits the open-string playing of just tunings developed in his non-notated music for the instrument, used frequently in an improvisatory manner, in combination with flutes, trumpet, and voice.⁶

I acknowledge Hal Foster's concept of 'recoding', which Chatham felt was pertinent to his aesthetics in this work for electric guitars, especially *Guitar Trio* (1977), whereby the material and imagery from popular culture is 'recoded' in art, with a new meaning distinct from the popular cultural form.⁷ I reconfigure 'recoding' into a two-part process informed by an aesthetic of the immanent sublime: I use 'distillation' to outline how Chatham analysed and identified characteristic components of musical aesthetics and practices, often by reducing the component in question to its essence; I use 'synthesis' to refer to the fusion of these components through these works for electric guitars.

I propose that an aesthetic of the sublime, as theorised by Jean-François Lyotard, informs avant-garde experimentation and consciousness expansion in downtown music: this is evident in Chatham's musical activity, including his work for electric guitars, and that of key composers and musicians whom he encountered during his formative artistic development.⁸ Lyotard's proposition is that 'it is in the aesthetic of the sublime that modern art [...] finds its impetus and the logic of avant-gardes finds its axioms'.⁹ This tasks the artist with innovating new forms of representation, 'to allow the unrepresentable to become perceptible'

⁴ These directions were written down when the works were performed outside the context of Chatham's regular ensemble, or less frequently, when performed without him.

⁵ Chatham's *Harmonie du soir* (2012) for electric guitar ensemble was scored but this composition is not discussed in the thesis due to considerations of space; however, his aesthetic and practice in notated music for six electric guitars, bass, and drums is discussed in Chapter Seven.

⁶ This solo work, developed from the beginning of the twenty-first century, is referred to, but it is not given detailed analysis (the non-notated approach, however, is outlined in Part Two of the thesis).

⁷ Hal Foster, *Recordings* (Seattle: Bay Press, 1985).

⁸ Jean-François Lyotard, *The Postmodern Condition: A Report on Knowledge* (translated by Geoff Bennington and Brian Massumi) (Manchester: Manchester University Press, 1984).

⁹ *Ibid*, 77.

whereby, what cannot be presented, can be conceived, and thus, experienced through music.¹⁰ Here, Philip Shaw proposes:

Whenever experience slips out of conventional understanding, whenever the power of an object is such that words fail and points of comparison disappear, then, we resort to the feeling of the sublime. As such, the sublime marks the limits of reason and expression together with a sense of what might lie beyond these limits.¹¹

I seek to delimit this aesthetic in the chapters to follow.

An aesthetic of immanence is established in relation to post-1945 culture and music – composer John Cage’s work in particular – and how this connects specifically with musical postmodernism and Chatham’s contribution to it. I delineate an immanent sublime in Chatham’s music for electric guitars that seeks to elicit profound changes in consciousness. I present an argument that details and interprets how the composer’s amplified, densely timbral, and repetitive music engages an individual immanently via trance-inducing elements (see ‘A Framework to Interpret Listening Experiences’, below). I explicate this turn toward immanence, as well as a focus upon participation and subjectivity by studying Chatham’s activities across, and between, musical genres.

The thesis is a critical reading of the aesthetics and practice in Chatham’s music for electric guitars, one that analyses and interprets his distillation of components of avant-garde and rock genres, and their synthesis in these musical works. This music for electric guitars is: *Tone Death* (1977), *Guitar Trio* (1977), *The Out Of Tune Guitar* (1978), *Acoustic Terror* (1979), *Wild Romance* (1980), *64 Short Stories* (1981), *Drastic Classicism* (1981), *Guitar Ring* (1982), *Die Donnergötter* (1984-1986), *An Angel Moves Too Fast to See/A Secret Rose* (1989/2006), and *A Crimson Grail* (2005).¹² His music for brass, electronics, flutes, gongs, and trumpet is reviewed in relation to the development of works for electric guitar, including *Dr. Drone In Concert* (1971) and *Two Gongs* (1971).

I draw together aesthetics, ethnographic approaches, musicology, and popular music studies to present the findings of the research. Due to a lack of accurate critical writing, providing in-depth discussion of how Chatham’s music was composed and performed, this is, primarily, a music-determined analysis of the

¹⁰ Ibid, 80.

¹¹ Philip Shaw, *The Sublime* (London: Routledge, 2006), 2.

¹² *A Secret Rose* is an expanded and rewritten version of *An Angel Moves Too Fast to See*.

evolution and realisation of these works for electric guitar. The musical analysis is contextualised in a biographical and cultural account to provide a combined cultural, historical, and musical interpretation that draws together my perspective as a performer and scholar of the work. As this is the first doctoral thesis upon Chatham's work, I endeavour to provide an extended and wide-ranging study, with particular, though not exclusive, focus on the music for electric guitar.¹³

1.1 Musical Analysis

I critique and interpret the music for electric guitar in analyses that draw upon the historical reception of the music, my personal experiences performing the works, performance directions, recordings, scores, testimony from performers and composer, and writing on the subject. The analysis of Chatham's music focuses upon composition, performance, and listening. These three inextricably interrelated elements of music, understood as humanly organised sound, are outlined hereafter. 'Composition' is defined as the approaches used in advance of a performance to structure the music, including musical notation, performance directions, and verbal instruction. 'Performance' refers to the combination of classical and rock methods used to shape the composition in concert, or recorded performances, including forms of improvisation. 'Listening' pertains to a listener's musical experience, encompassing acoustic and psychoacoustic phenomena (especially 'perceptualization'), entrainment, and frisson.

I draw upon a range of audio and video recordings of Chatham's music that encompasses both studio and live performances.¹⁴ Online material has increased in the past decade, as the composer, institutions, or other individuals publish this material, often via video-hosting sites, such as *Vimeo* and *YouTube*.

¹³ To the best of my knowledge, this is the first Ph.D. study of Chatham's music.

¹⁴ See 'Chatham Discography' and 'Online Resources for Chatham's Music' in the Bibliography of this thesis.

This provided documentation, where no substantial written records existed, and allowed comparisons to be made between interpretations of the work.¹⁵

While recordings are integral to the analysis of the music, nonetheless, they lack the acoustic and psychophysical dynamics that a loud, immersive live performance can provide a listener with. Byron Coley notes of Chatham's recordings, 'there's really no way to appreciate the physics-distorting volume at which they were originally presented'.¹⁶ To address this concern, I participated in two UK premieres of Chatham's music for guitar orchestra as a guitarist: *A Crimson Grail*, at the Anglican Cathedral, Liverpool, in September 2012, for the Liverpool Biennial, and *A Secret Rose*, at Town Hall in Birmingham, in June 2014, for the Frontiers Festival. I attended solo and duo performances by Chatham: a solo set at the Hunters' Moon Festival in Leitrim, Ireland, on 27 October 2013, another solo set at Cafe Oto on 19 March 2014, and a duo performance with Charlemagne Palestine, in London, on 20 March 2014. These subjective, experiential accounts of listening to, and performing, Chatham's works provide a supplementary, qualitative dimension to the research.

1.2 A Framework to Interpret Listening Experiences

Participatory listening processes are a key aspect of Chatham's work for electric guitars. The framework I use to determine the prevalent features of these experiences integrates the auditory, physiological, and psychological components of listening, and attendant processes of notable consciousness alteration. Laurie Spiegel's argument that new musical models are necessary to discuss contemporary music is pertinent in this regard:

Hierarchical and other historically dominant models of perceived musical organisation are increasingly inapplicable to new musical processes and repertoire. The next major paradigm shift for music models, structures and concepts, perhaps comparable in importance to that in which polyphony gave way to homophony, may be a shift of emphasis from means of acoustic

¹⁵ For example, see Rhys Chatham (The Kitchen Archives), *Rhys Chatham: A Four Year Retrospective* (New York: Electronic Arts Intermix, 1981). Footage of another performance of Chatham's music for electric guitar during this era appeared on Ericka Beckman, *135 Grand Street, New York, 1979* (London: Soul Jazz Records, 1979).

¹⁶ Byron Coley, 'An Angel Moves Too Fast to See', *The Wire*, Issue 231, May 2003, 56.

production and the nature of sound per se to new musical models based on psychoacoustics, cognitive studies and subjective auditory experience.¹⁷

This suggestion informed the creation of my own interpretative model, which I use to analyse how a listener's subjective perceptual engagement and participation may be encouraged, and their consciousness altered markedly by specific phenomena: entrainment, frisson, and perceptualization. In this way, I also test the veracity of Chatham's statement that this 'music tells a story, yet somehow, it is the listener's story'.¹⁸

Notably, David Clarke and Eric Clarke propose that 'music has the capacity to both reflect human subjectivity and to be a powerful element in constituting it'.¹⁹ Moreover, David Clarke observes the essential attributes of music's connection with consciousness:

First, music models, moulds, and makes audible the flow of our inner, subjective life—the sense of our being-in-the-world, 'the pattern, or logical form, of sentience', as Susanne Langer [...] famously put it. Secondly, these processes and their musical analogues are by definition *temporalities*. To be conscious is to know one's being from one moment to the next and to generate some apprehension of unity—an enduring self, and enduring world (whether 'real' or illusory)—out of experience. And while much in the everyday business of human doing furnishes such conditions for consciousness, the making of music might be argued as distinctive in these respects, since 'musicking' captures in its very temporal essence the temporality that is essential to the knowing of being—i.e.: consciousness.²⁰

Correspondingly, I investigate how Chatham's music is informed by, and concerned with, the evocation of immanence – our being within the world – as well as related issues of participation, sentience, and subjectivity.

I employ the term 'trance-inducing' to identify listening aesthetics and practices that seek to reconfigure consciousness significantly. The umbrella term 'trance' is used to describe a process whereby a person's consciousness may be altered through music. I broadly identify two characteristic ways in which consciousness may be altered through the autonomic nervous system (ANS): as ergotropic trance or the 'high arousal model' (ritualistic), and trophotropic

¹⁷ Laurie Spiegel, 'Music as Mirror of Mind', *Organised Sound*, Vol. 4, No. 3, December 2000, 151.

¹⁸ Rhys Chatham, liner note essay for Éliane Radigue, *Adnos I-III*, Table of the Elements Records, SWC-CD-55, 2002.

¹⁹ David Clarke and Eric Clarke (editors), *Music and Consciousness: Philosophical, Psychological, and Cultural Perspectives* (Oxford: Oxford University Press, 2011), xix-xx.

²⁰ David Clarke, 'Music, phenomenology, time consciousness: meditations after Husserl', *Music and Consciousness: Philosophical, Psychological, and Cultural Perspectives*, 1.

trance or the 'low arousal model' (meditative).²¹ The ANS connects body and brain through its enteric, parasympathetic, and sympathetic subsystems, and through music, arousal occurs in the sympathetic, and homeostasis or quiescence in the parasympathetic.

Ergotropic trance is marked by an increase in the participant's sympathetic nervous system, characterised by arousal, often in an ecstatic or ritualistic context; trophotropic trance is marked by an increase in the participant's parasympathetic nervous system, characterised by homeostasis, often in a meditative context. These trance processes originate 'from the bottom up' (ritualistic), where the body brings about changes in the brain through nervous system activity, and 'from the top down' (meditative), where the brain brings about changes in the body primarily through brain activity.²² These phenomena may alter consciousness to 'transcend or undermine one's usual sense of self', as Kathleen Marie Higgins broadly describes trance processes, including ecstatic experiences.²³ I question how Chatham's music for electric guitars may activate these processes for a listener.

I use the concept of 'perceptualization' to interpret the mysterious quality of timbre created by a subjective listening impulse, shaped by acoustic and psychoacoustic phenomena, that alters a listener's perceptions markedly.²⁴ This draws upon the research of ethnomusicologist, Cornelia Fales, who created the term perceptualization in her study of timbre in African music, and Rebecca Leydon's extension of this concept into the context of avant-garde music, where she details the connections between timbre, listening, and phenomenology.²⁵ This is appropriate to study Chatham and his mentors, whose music has a strong timbral focus, leading to marked changes in consciousness for a listener.

²¹ Ruth Herbert, 'Consciousness and Everyday Music Listening: Trancing, Dissociation, and Absorption', *Music and Consciousness: Philosophical, Psychological, and Cultural Perspectives*, 296.

²² Eugene G. D'Aquili and Andrew B. Newberg, *The Mystical Mind: Probing the Biology of Religious Experience* (Minnesota, Fortress Press, 1999), 23-27, 99-102.

²³ Kathleen Marie Higgins, *The Music Between Us: Is Music a Universal Language?* (Chicago: University of Chicago Press, 2012), 155.

²⁴ Cornelia Fales, 'The Paradox of Timbre' *Ethnomusicology*, vol. 46, no. 1, 2002, 56-95.

²⁵ Rebecca Leydon, 'Clean as a Whistle: Timbral Trajectories and the Modern Musical Sublime' *MTO: A Journal for the Society of Music Theory*, Vol. 18, No. 2, June 2012, <http://www.mtosmt.org/issues/mto.12.18.2/mto.12.18.2.leydon.html>. Accessed 10 March 2013.

In the composer's music for electric guitars, I seek to understand why entrainment is likely to occur via sustained repetition of high-volume musical sounds of considerable physicality. Entrainment is understood as 'a phenomenon in which two or more independent rhythmic processes synchronize with each other'.²⁶ Specifically, entrainment through music manifests in 'the synchronization of internal rhythm processes (such as neuronal oscillations)²⁷ or behaviour (such as tapping or dancing) to external, periodic events (e.g., the beats in a rhythm)'.²⁸ Patrik N. Juslin establishes how this phenomenon may manifest as rhythmic entrainment,

Rhythmic entrainment refers to a process whereby an emotion is evoked by a piece of music because a powerful, external rhythm in the music influences some internal bodily rhythm of the listener (e.g. heart rate), such that the latter rhythm adjusts toward and eventually "locks in" to a common periodicity. [...] Entrainment is presumably enhanced by a marked pulse [...] and can increase arousal, evoke feelings, and create a sense of "social bonding".²⁹

Juslin adds that the 'entrainment-inducing qualities of music, might produce feelings of arousal, communion, and perhaps even trance-like altered states of consciousness'.³⁰ In the context of this research, these implications of rhythmic entrainment are considered also.

Affect induced by music, termed frisson, is examined in relation to Chatham's music as well. Frisson is defined as 'a unique power to elicit moments of intense emotional and psychophysiological response', including '*that* moment when music resonates so deeply and viscerally as to elicit a physical, bodily response'.³¹ This is an experiential and sensuous phenomenon that integrates 'emotional intensity with verifiable tactile sensations not localized to any one

²⁶ Martin Clayton, Rebecca Sager and Udo Will, 'In time with the music: The concept of entrainment and its significance for ethnomusicology', 2004, <http://www.open.ac.uk/Arts/experience/InTimeWithTheMusic.pdf>. Accessed 27 August 2015.

²⁷ Repetitive or rhythmic neural activity in a listener's central nervous system.

²⁸ Daniel J. Cameron and Jessica A. Grahn, 'The Neuroscience of Rhythm', *The Oxford Handbook of Music Psychology*, edited by Susan Hallam, Ian Cross, and Michael Thaut (Oxford: Oxford University Press, 2016), 363.

²⁹ Patrik N. Juslin, 'Emotional Reactions to Music', *The Oxford Handbook of Music Psychology*, 203.

³⁰ Patrik N. Juslin, 'Music and Emotion', *Music and the Mind: Essays in Honour of John Sloboda*, edited by Irène Deliège and Jane Davidson (Oxford: Oxford University Press, 2011), 122.

³¹ Luke Harrison and Psyche Loui, 'Thrills, chills, frissons, and skin orgasms: toward an integrative model of transcendent psychophysiological experiences in music', *Frontiers in Psychology*, Vol. 5, July 2014, <http://journal.frontiersin.org/article/10.3389/fpsyg.2014.00790/full>. Accessed 29 October 2014.

region of the body'.³² In Gilles Deleuze and Félix Guattari's work, 'affect' is delineated from feelings and emotion as a prepersonal phenomena:

AFFECT/AFFECTION. Neither word denotes a personal feeling (sentiment in Deleuze and Guattari). *L'affect* (Spinoza's *affectus*) is an ability to affect and be affected. It is a prepersonal intensity corresponding to the passage from one experiential state of the body to another and implying an augmentation or diminution in that body's capacity to act. *L'affection* (Spinoza's *affectio*) is each such state considered as an encounter between the affected body and a second, affecting, body (with body taken in its broadest possible sense to include "mental" or ideal bodies).³³

Benedictus de Spinoza notes the difficulty of grasping, and conceptualising affect because it 'is a confused idea, by which the mind affirms of its body, or any part of it, a greater or less power of existence than before'.³⁴ This phenomenon of frisson, or musically-induced affect, as prepersonal intensity is harmonious with effecting powerful changes in consciousness marked by sentience.

Frisson resonates subjectively with a listener, yet it is distinct from emotions and feelings. Accordingly, Eric Shouse states that 'feelings are personal, emotions are social, affects are prepersonal':³⁵

A feeling is a sensation that has been checked against previous experiences and labeled. It is personal and biographical because every person has a distinct set of previous sensations from which to draw when interpreting and labeling their feelings. [...] An emotion is the projection/display of a feeling. Unlike feelings, the display of emotion can be either genuine or feigned. [...] An affect is a non-conscious experience of intensity; it is a moment of unformed and unstructured potential [that] cannot be fully realised in language [...] because affect is always prior to and/or outside of consciousness.³⁶

While emotion and feeling both inflect, and differentiate, a listener's musical experience (which can occur as a result of affect), frisson engages and alters subjectivity through an encounter with a prepersonal intensity, life in its immanence.

³² Ibid.

³³ Gilles Deleuze and Félix Guattari, *A Thousand Plateaus* (translated by Brian Massumi) (London/New York: Bloomsbury Academic, 2013), xv.

³⁴ Benedictus de Spinoza, *Ethics* (translated by W.H. White and A.K. Stirling) (London: Wordsworth Editions, 2001), 158.

³⁵ Eric Shouse, 'Feeling, Emotion, Affect', *M/C Journal: A Journal of Media and Culture*, Vol. 8, No. 6, December 2005, <http://journal.media-culture.org.au/0512/03-shouse.php>. Accessed 18 August 2015.

³⁶ Ibid.

I seek to determine how frisson may evoke profound emotive responses on an individual, and collective level, and how this accords with a sublime of music. Indeed, Gregory J. Seigworth argues that ‘the most everyday understanding of affect comes from both music and from children (especially infants). In an encounter with either there are moments of unspeakable, unlocatable sensation that regularly occur; something outside of (beyond, alongside, before, between, etc.,) words’.³⁷ Moreover, he states that musical affect can ‘reshape our surroundings, [...] literally altering our sense of the immediate landscape and of the passage of time itself’.³⁸ Here, Shouse concurs, and elaborates:

Affect plays an important role in determining the relationship between our bodies, our environment, and others, and the subjective experience that we feel/think as affect dissolves into experience. [...] Because affect is unformed and unstructured (unlike feelings and emotions) it can be transmitted between bodies. The importance of affect rests upon the fact that in many cases the message consciously received may be of less import to the receiver of that message than his or her non-conscious affective resonance with the source of the message.³⁹

I analyse and interpret how these various trance-inducing musical components can calibrate profound alterations of consciousness in the work of Chatham (and others) to characterise the modality of a listener’s experience. I detail and explicate the communal and social aspects also, often by linking this directly with the music and vice versa.

1.3 Current State of Critical Commentary and Source Material

The primary source material is unpublished performance directions, scores of the music, and audio and video recordings of the music. The analytical accounts are derived from these sources, supplemented by personal involvement as a guitarist, interviews, and correspondences with the composer and performers.

The secondary source material pertains to biography and cultural history, musical analysis (composing, performing, listening), and aesthetics. There is no

³⁷ Gregory J. Seigworth, ‘Fashioning A Stave, or Singing Life’ *Animations of Deleuze and Guattari*, edited by J.D. Slack (New York: Peter Lang, 2003), 85.

³⁸ Ibid.

³⁹ Eric Shouse, ‘Feeling, Emotion, Affect’.

critical biography or substantial academic research on the composer's work available, presently; therefore, I draw upon scholarly and non-scholarly sources to provide a reading of the development of this music for electric guitar.⁴⁰ I engage with substantial non-scholarly material: articles, interviews, reviews, and video footage, sourced from blogs, documentary film, magazines, newspapers, online institutional archives, radio, and social media sites. For example, I use several articles from *The New York Times* to provide a historical perspective on Chatham's musical activities from the late 1970s through to the present moment (2017).

1.4 Structure of Thesis

The main research aim is broken down into smaller questions: what is the cultural context in which these works developed?⁴¹ Which composing, performing, and listening approaches characterise the music? What is the significance of these works for contemporary music? This informs the three-part structure of the thesis: Part One, Two, and Three, which focus upon these questions, with some overlaps occurring necessarily.

1.4.1 Part One - The Development of Chatham's Musical Aesthetics and Practice

Part One of this thesis maps and interprets Chatham's musical development from childhood through to adulthood between 1952 and 1978 to examine how and why his affiliation with American avant-garde composition and rock led to his later work for electric guitar. I determine his key musical influences, outline how these aesthetics and practices were assimilated into his formative development as a musician and composer, and highlight the import of his activities in avant-garde, electronic, improvised, Indian classical, popular, and rock music.

⁴⁰ This reading is in chronological order where possible; however, from his late teens onwards, Chatham was engaged in a variety of musical activities, often concurrently.

⁴¹ Part Three of this thesis does not cover the periods when Chatham moved away from composing for guitar, firstly, to focus on music for brass from 1982 to 1984, and to explore collaborative and improvised approaches for trumpet and electronica from 1994 to 2002.

Although biographical information about the composer is available, there is little known about how his formative experiences were assimilated and integrated into the music. Chatham's 'The Composer's Notebook: Towards A Musical Agenda For The 1990s' partly accounts for his artistic development up until 1994, and summarises his major works.⁴² Another essay, entitled '5 Generations of Composers at the Kitchen', and his liner notes to recordings, also provided useful material.⁴³ Chatham's online posts, in particular, his own website and *Facebook* page, presented insights into his artistic development and working methods.⁴⁴ Interviews in written, audio, and video forms provided documentation for periods lacking extensive accounts of his activities.⁴⁵

Chapter Two surveys the practical composing skills Chatham developed, and how he gained experience performing a number of instruments (clarinet, flute, synthesizer, and virginal). I discuss the importance of key downtown artists that influenced his composing during this period: Maryanne Amacher, John Cage, Charlemagne Palestine, Éliane Radigue, Terry Riley, and Morton Subotnick. I assess Cage's writing and works to determine how his musical aesthetic engaged Chatham.⁴⁶ I examine Chatham's formative experiences composing electronic music at the New York University studios alongside Subotnick, and a number of other young composers in the late 1960s, and the significance of the Electric Circus venue, by deploying Robert Gluck's research.⁴⁷ I survey the significance of minimalist composers who shaped Chatham's musical development, Riley and La Monte Young, drawing upon Keith Potter's authoritative *Four Musical Minimalists*, and to a lesser extent Wim Mertens'

⁴² Rhys Chatham, 'The Composer's Notebook: Towards A Musical Agenda For The 1990s', 1994, http://www.rhyschatham.net/nintiesRCwebsite/Essay_1970-90.html. Accessed 14 July 2014.

⁴³ Rhys Chatham, '5 Generations of Composers at the Kitchen' in Lee Morrissey (editor), *The Kitchen Turns Twenty: A Retrospective Anthology* (New York: The Kitchen, 1992), 7-22.

⁴⁴ Rhys Chatham, 'The Official Website of Composer Rhys Chatham', <http://www.rhyschatham.net/>. Accessed 14 October 2014; Rhys Chatham, 'Rhys Chatham: Facebook', <https://www.facebook.com/rhys.chatham?fref=ts>. Accessed 8 November 2014.

⁴⁵ For example, Barbara Golden, 'Conversations at the Crack o' Dawn: Rhys Chatham', 1985, Radio Interview, http://cec.sonus.ca/econtact/12_2/audio/RhysChatham.mp3. Accessed 17 May 2015.

⁴⁶ John Cage, *Silence* (London: Marion Boyars, 2011); John Cage, *A Year From Monday* (London: Marion Boyars, 2009).

⁴⁷ Robert J. Gluck, 'Nurturing Young Composers: Morton Subotnick's Late-1960s Studio in New York City', *Computer Music Journal*, Spring 2012, Vol. 36, No. 1, 65-80; Robert J. Gluck, 'Silver Apples, Electric Circus, Electronic Arts, and commerce in late 1960s New York', *International Computer Music Association*, Michigan: University of Michigan Library, 2009, <http://quod.lib.umich.edu/i/icmc/bbp2372.2009.033?rgn=main;view=fulltext>. Accessed 11 November 2012, 149-152.

earlier *American Minimal Music*.⁴⁸ I examine how consciousness expansion through making music would influence Chatham's work as a performer and composer during this period and thereafter; especially, the fascinating and transformative power of timbre, and its correlate the harmonic series.

Chapter Three traces Chatham's development in New York's downtown music scene during the 1970s. I investigate his role as curator of the music programme at the influential art performance space, The Kitchen, and how his position in the downtown SoHo scene influenced his music. I survey the lasting influence of musicians whom Chatham gained valuable experience, studying and working alongside: Tony Conrad, Pandit Pran Nath, Charlemagne Palestine, and La Monte Young. Tom Johnson's, *The Voice Of New Music*, a collection of articles originally published in the *Village Voice*, from 1972 to 1982, gives crucial insights into the activities of Chatham and his peers within New York during the 1970s.⁴⁹ Marvin J. Taylor's *The Downtown Book* outlines the broader cultural milieu that Chatham was operating in, through a collection of insightful scholarly articles about downtown art during 1974-1984.⁵⁰ I establish the issues at hand in this post-Cagean scene further by drawing upon the collection of short essays, *The Kitchen Turns Twenty: A Retrospective Anthology*, and Branden W. Joseph's *Beyond the Dream Syndicate: Tony Conrad and the Arts after Cage* also.⁵¹ The minimalist music he composed at this point reflects his involvement with the aforementioned downtown musicians, and would inform his later works for electric guitar. Timothy A. Johnson's article, 'Minimalism: Aesthetic, Style, or Technique?', is used to define the 'minimalist technique' employed in the music.⁵²

A desire to evoke the spiritual dimensions of music is evident in Chatham's work, and of his mentors and peers in downtown music during this period, and I

⁴⁸ Keith Potter, *Four Musical Minimalists* (Cambridge: Cambridge University Press, 2002); Wim Mertens, *American Minimal Music* (London: Kahn & Averill, 1983).

⁴⁹ Tom Johnson, *The Voice Of New Music, New York: 1972-1982*, digital copy of Eindhoven: Het Apollohuis, 1989 edition, <http://www.editions75.com/Books/TheVoiceOfNewMusic.PDF>, unpaginated. Accessed 18 August 2015.

⁵⁰ Marvin J. Taylor (editor), *The Downtown Book: The New York Art Scene 1974-1984* (New Jersey: Princeton University Press, 2006).

⁵¹ Lee Morrissey (editor), *The Kitchen Turns Twenty: A Retrospective Anthology* (New York: The Kitchen, 1992); Joseph, *Beyond the Dream Syndicate: Tony Conrad and the Arts after Cage*, 2008.

⁵² Timothy A. Johnson, 'Minimalism: Aesthetic, Style, or Technique?', *The Musical Quarterly*, Vol. 78, No. 4, 1994, 742-773.

use the term 'pleroma music' to examine this aspect of their work. The term pleroma arose in Gnosticism to signify the 'fullness' or 'plenitude' of the Divine powers; it was first applied to a twentieth-century composition by Alexander Scriabin (1871-1915) in his *Prométhée, Le Poème du Feu* (1910) to describe a chord using six-notes: C, F#, B, E, A, and D. Richard Taruskin notes it was 'designed by the composer to afford instant apprehension – that is, to *reveal*, in the biblical sense – what was in essence beyond the mind of man to conceptualise. [...] A genuine musical symbol: something that establishes a nexus between external phenomenal reality [...] and the higher noumenal reality'.⁵³ I analyse and interpret the evocation of this experiential knowing, or gnosis in the avant-garde compositions of the late-twentieth century.

This activity aligns with Joscelyn Godwin's statement that music 'contains all the requisites for a path of spiritual development. It offers transformative experiences for the body, the emotions, the intellect, and the soul'.⁵⁴ Indeed, the states of consciousness that inform, and can be induced through music can be akin to, or identical with those experienced in spiritual practices, including meditative or ritual contexts. For instance, Sabine Feisst affirms that meditation is connected to music in three primary ways, 'to the process of composition [...], to performance and to the effects on the listener'.⁵⁵ David Clarke and Eric Clarke state also that meditative musical practices may facilitate the development of consciousness, as 'meditation is above all a practical pathway for developing consciousness'.⁵⁶ The ritualistic aspect of this musical activity, especially, the desire to create and share ecstatic or emotive states through music, draws upon the communal, participatory, and subjective aspects of listening and performance whereby 'music is more than just music'.⁵⁷

⁵³ Richard Taruskin, *Music in the Early Twentieth Century: The Oxford History of Western Music* (Oxford: Oxford University Press, 2009), 216.

⁵⁴ Joscelyn Godwin, 'Music and the Hermetic Tradition', *Gnosis and Hermeticism from Antiquity to Modern Times*, edited by Roelof van den Broek and Wouter J. Hanegraaff (New York: State University of New York Press, 1998), 194.

⁵⁵ Sabine Feisst, 'Losing Control: Indeterminacy and Improvisation in Music Since 1950', 2002, <http://www.newmusicbox.org/articles/Losing-Control-Indeterminacy-and-Improvisation-in-Music-Since-1950/6/>. Accessed 23 September 2015.

⁵⁶ Clarke and Clarke, *Music and Consciousness*, xxi.

⁵⁷ For details of plenitude and variety of accounts of intense experiential engagements with music, see Alf Gabrielsson, *Strong Experiences With Music: Music is Much more than just music* (translated by Rod Bradbury) (Oxford University Press: Oxford, 2011).

Here, Tim Hodgkinson's elucidation of the term 'spiritual music', as that which sets up 'the revolt of the psyche against the language-narrated self', is apt to describe and contextualise the trance-inducing potency of downtown music that shows the potential of art to facilitate the activation of trance processes.⁵⁸ This evocation of intense sentient experiences at the edge of subjectivity through music is connected with both meditation and ritual, and the realisation of liminal states of consciousness. In the context of Western culture, these spiritual practices emphasising direct experience of a prepersonal force (God, the Divine, Nature, the Self, etc.) are significant:

It is still often regarded as self-evident that western culture is based on the twin pillars of Greek rationality, on the one hand, and biblical faith, on the other. [...] The former may be defined by its sole reliance on the rationality of the mind, the latter by its emphasis on an authoritative divine revelation. However, from the first centuries to the present day there has also existed a third current, characterized by a resistance to the dominance of either pure rationality or doctrinal faith. The adherents of this tradition emphasized the importance of inner enlightenment or gnosis: a revelatory experience that mostly entailed an encounter with one's true self as well as with the ground of being, God.⁵⁹

Accordingly, Marcel Cobussen records: 'spirituality is neither subjective not objective: it takes place in the space between subject and object; it comes into being in relations, relations stripped off from ordinary structures' at thresholds, or 'para-sites', experiential spaces at the limits of subjectivity.⁶⁰ Deleuze and Guattari define this as 'a plane of immanence', an infinite plane or smooth space with no divisions.⁶¹ This is also the immanent sound plane, 'which is always given along with that to which it gives rise, [that] brings the imperceptible to perception'.⁶²

Chapter Four determines an engagement with popular music by Chatham and other composers of 'new music' on the downtown scene from 1975 to 1978. Tim Lawrence's *Hold Onto Your Dreams: Arthur Russell and the Downtown Music Scene 1973-1992* provides useful interviews and original research relating to Chatham in the context of his transition from minimalism into popular-music

⁵⁸ Tim Hodgkinson, 'Holy Ghost', *Arcana V*, edited by John Zorn (New York: Hips Road, 2010), 209.

⁵⁹ Roelof van den Broek and Wouter J. Hanegraaff, *Gnosis and Hermeticism, from Antiquity to Modern Times* (New York: State University of New York Press, 1998), vii.

⁶⁰ Marcel Cobussen, *Thresholds: Rethinking Spirituality Through Music* (Surrey: Ashgate, 2008), 20-21.

⁶¹ Deleuze and Guattari, *A Thousand Plateaus*, 311.

⁶² *Ibid.*

influenced composition in downtown music during this era.⁶³ A Robert Fink article also identifies the music of Chatham and his contemporaries as a broad cultural movement of artists who brought together elements derived from avant-garde classical and popular music.⁶⁴ I account for the influence of punk rock upon Chatham's music, and determine how his attendance at a Ramones concert in 1976 initiated the unfolding of his distinctive compositional voice.

I also examine his association with the no wave underground rock scene, and the aesthetic and practical influence of this underground 'popular avant-garde'. The term "No wave" is hereby understood to deploy conceptual and unconventional musical strategies operating across mainstream generic conventions of art and rock. Stephen Graham's research was also pertinent to this area, especially, his identification of an 'avant-garde' aesthetic across experimental art and underground popular ('non-popular popular') music, the 'effort to radically make things anew'.⁶⁵ Bernard Gendron's *Between Montmartre and the Mudd Club: popular music and the avant-garde* presents a rigorous cultural and theoretical reading of the interaction between new music and no wave in 1970s New York, including Chatham's 'borderline aesthetic' between art and rock.⁶⁶ I also draw upon non-scholarly sources to chart the development of Chatham's music for the electric guitar and his engagement with the no wave music scene, including Marc Masters' *No Wave*, and Thurston Moore and Byron Coley's *No Wave: Post Punk New York 1976-1980*.⁶⁷

⁶³ Tim Lawrence, *Hold Onto Your Dreams: Arthur Russell and the Downtown Music Scene 1973-1992* (London: Duke University Press, 2009).

⁶⁴ Robert Fink '(Post)minimalisms 1970-2000: The Search for a New Mainstream', *The Cambridge History of Twentieth Century Music*, edited by Nicholas Cook & Anthony Pople (Cambridge: Cambridge University Press, 2004), 539-556.

⁶⁵ Stephen Graham, *Notes From The Underground: A Cultural, Political, and Aesthetic Mapping of Underground Music*. PhD Thesis, Goldsmiths College, University of London, 2012; Stephen Graham '(Un)popular Avant-Gardes: Underground Popular Music and the Avant-Garde', *Perspectives of New Music*, Vol. 48, No. 2 (Summer 2010), 5-20.

⁶⁶ Bernard Gendron, *Between Montmartre and the Mudd Club: popular music and the avant-garde* (Chicago: University of Chicago Press, 2002).

⁶⁷ Marc Masters, *No Wave* (London: Black Dog Publishing Limited, 2007); Thurston Moore and Byron Coley, *No Wave: Post-Punk Underground New York: 1976-1980* (New York: Abrahams Image, 2008).

1.4.2 Part Two - Aesthetics and Practice in the Non-notated Music for Electric Guitar

Part Two of the thesis provides close-readings of individual works by Chatham from 1977 to 1982 to interpret their import in the context of debates about postmodernism in downtown music. Here, I outline the composing, performance, and listening features of these works and interpret their significance in the context of contemporary music.

Chatham's most widely known work, *Guitar Trio* (1977), synthesises many of the composer's musical experiences in an innovative form, drawing together absorbed elements of new music and no wave rock. I provide a critical reading of the music's composition, how a performance shapes the music, and characteristic features of listening experiences to determine the interpenetration and reciprocation of art and rock aesthetics and practices in this music.

I contextualise and discuss Chatham's work with tuning systems, equal-tempered and just intonation, and their use in works for electric guitars. Just intonation is here understood as 'any system of tuning in which all the intervals can be represented by whole-number frequency ratios'.⁶⁸ Whole-number ratios used in this tuning system may include the following examples:

Interval	Whole-number ratios
Octave	2:1
Perfect Fifth	3:2
Perfect Fourth	4:3
Major Sixth	5:3
Major Third	5:4
Minor Third	6:5
Minor Sixth	8:5
Minor Seventh	9:5
Major Second	9:8
Major Seventh	15:8
Minor Second	16:15
Tritone	45:32.

⁶⁸ David B. Doty, *The Just Intonation Primer*, (San Francisco: Other Music Inc., 2002), 1.

For example, if the fundamental note is tuned to 100hz, then the other notes used will be related by whole-number ratios: an octave above would be tuned to 200hz, a ratio of 2:1, and so on. In Chatham's music for electric guitar, he mainly uses justly tuned intervals: primarily, unisons (1:1), fifths (3:2), and octaves (2:1), and smaller harmonic ratios, derived from his tuition as a harpsichord tuner, and with Tony Conrad and La Monte Young.⁶⁹

Chapter Six identifies how Chatham's aesthetics and practice for non-notated music for electric guitars developed from 1978 to 1982, and investigates the significance of his activities. I examine *The Out of Tune Guitar* (1978), a distinctive work that diverged radically from minimalism. I draw upon Kim Gordon's 'Trash Drugs and Male Bonding' article, which describes a Chatham ensemble performance of an unnamed non-notated piece for electric guitar.⁷⁰ This reading gives an aesthetic and practical insight into Chatham as a 'serious young composer who writes dirty music' – 'dirty' referring to the impurity of mixing rock and avant-garde performance approaches and sounds, including the use of drugs to create more self-indulgent playing. Another article by Gordon identifies the concept of persona-shaped music deriving from a rock tradition in avant-garde music of the late 1970s; this serves as a point of departure for an enquiry into how the individual functions in the context of an ensemble performance of Chatham's music.⁷¹

I outline the evolution of Chatham's music for electric guitar in a series of other lesser-known works, while contextualising these innovations in the contemporary New York music scene. I provide a critical analysis of *Drastic Classicism* (1981), a significant work for multiple electric guitars, using a complex tuning system to produce abrasive, dense, and violent sounds. I identify the increasing sophistication of Chatham's compositions, such as *Guitar Ring*, and discuss the nature of his ambiguous identity as a classical composer and rock musician during this era. Lawrence's 'Pluralism, Minor Deviations, and Radical Change: The Challenge to Experimental Music in Downtown New York, 1971–85' provides a critical examination of downtown music during the period in

⁶⁹ For more, see: Kyle Gann, 'Just Intonation Explained', 1997, <http://www.kylegann.com/tuning.html>. Accessed 19 August 2015.

⁷⁰ Kim Gordon, 'Trash Drugs and Male-Bonding' (1980), *Is It My Body: Selected Texts* (edited by Branden W. Joseph) (Berlin: Sternberg Press, 2014), 26-31.

⁷¹ Kim Gordon, 'I'm Really Scared When I Kill in My Dreams' (1983), *Is It My Body: Selected Texts*, 46-61.

question. The text positions Chatham's music for electric guitar as 'radical pluralism', operating across the new music coming out of the avant-garde, and no wave rock coming after punk.⁷² I identify this movement across genres in Chatham's work for electric guitar during this period, including the use of noisy tonal sounds designed to alter a listener's consciousness, which influenced strains of rock music subsequently.

I explicate how Chatham's work prefigures the activity of vanguard figures in the twenty-first century working across the mediums of classical, jazz, and rock music. Christoph Cox and Daniel Warner identify this 'avant-gardist' characteristic of musicians operating across genres in contemporary music:

It cuts across classical music, jazz, rock, reggae, and dance music, it is resolutely avant-gardist in character and all but ignores the more mainstream inhabitations of these genres. [...] It is the vanguard fringe within each of these generic categories that is fully and richly challenging prevailing assumptions about the nature of music and sound, and challenging these genre categories themselves. These vanguard practices destabilize the obvious, and push our aesthetic and conceptual sensibilities to their limits.⁷³

The critic Alex Ross also suggests these musicians working across genres in the twenty-first century 'unsettle whatever genre they inhabit, making the familiar strange'.⁷⁴ I determine how, and question why, Chatham's work for electric guitars may challenge prevalent assumptions about cultural and musical practices in a radical manner.

1.4.3 Part Three - Aesthetics and Practice in the Notated Music for Electric Guitar

Part Three of the thesis studies notated music by Chatham between 1984 and 2006. I focus on the form and style of the works to analyse details and distil observations about Chatham's music and interpret this period of his work.

⁷² Tim Lawrence, 'Pluralism, Minor Deviations, and Radical Change: The Challenge to Experimental Music in Downtown New York, 1971–85' (2014), *Tomorrow is the Question: New Directions in Experimental Music Studies*, edited by Benjamin Piekut (Michigan: University of Michigan Press, 2014), 63–85.

⁷³ Christoph Cox and Daniel Warner (editors), *Audio Culture: Readings In Modern Music* (New York: The Continuum International Publishing Group, 2004), xvi.

⁷⁴ Alex Ross, *The Rest Is Noise: Listening to the Twentieth Century* (London: Harper Perennial, 2009), xv.

Chapter Seven analyses Chatham's first major notated composition for electric guitar ensemble *Die Donnergötter* (1984-1986) to demonstrate how his post-Cagean compositional practice expanded in this work. I examine his refined instrumental sensibility and the prominence of modal music – akin to Indian classical and rock music – in this composition, and their significance. I draw conclusions about the combination of art and rock in this music and evaluate the influence of Chatham's musical aesthetics and practice on a generation of artists across genres. Kyle Gann's *Music Downtown: Writings from the Village Voice* gives useful historical perspectives on Chatham and his contemporaries (including John Zorn) working across genres in downtown music at this time.⁷⁵

Robert Fink observes that Chatham is a composer 'fascinated by the sonic and ritualistic possibilities of massed guitars'.⁷⁶ Accordingly, I interpret how an individual might be engaged in a strong experience through a ritualised engagement with Chatham's work synthesising downtown avant-garde and rock music. Indeed, Judith Becker's notes of the ecstatic dimensions of consciousness transformation accessible via music:

The strongest version of happiness in relation to musical listening and an example of extreme arousal is ecstasy. Usually associated with religious rituals, ecstasy, as extreme joy, almost by definition involves a sense of the sacred [...] although musical ecstasy can justly be claimed by some attendees at secular musical events such as rock concerts.⁷⁷

Dan Graham affirms the connections between New York rock music and religion, or 'rock as religion' in American culture of the late 1970s and early 1980s, and proffers that rock music, as an art form, offers a more 'transcendental, communal emotion' than the plastic arts.⁷⁸ This observation is in the context of a reading of Patti Smith's music, an individual who partially inspired Chatham to take up playing punk rock (see Chapter Four of this thesis also). Analogously, I investigate how profound emotion may be calibrated by powerful forces in the composer's music.

⁷⁵ Kyle Gann, *Music Downtown: Writings from The Village Voice* (California: University of California Press, 2006).

⁷⁶ Fink, '(Post)minimalisms 1970-2000: The Search for a New Mainstream', 2004, 547.

⁷⁷ Judith Becker, *Deep Listeners: Music, Emotion, and Trancing* (Indianapolis: Indiana University Press, 2004), 79.

⁷⁸ Dan Graham, *Rock My Religion*, 1983-84; Dan Graham, 'Rock My Religion', *Rock My Religion: Writings and Projects, 1965-1990* (Massachusetts: MIT Press, 1994), 92-115.

Chapter Eight reviews Chatham's *An Angel Moves Too Fast to See* (1989) and the rewritten and expanded version of this work, *A Secret Rose* (2006) to outline how this composition is realised in performance. Gann's *American Music in the Twentieth Century* textbook provides an insightful profile of Chatham, with an overview of the music including an excerpt from *An Angel Moves Too Fast to See*.⁷⁹ However, it provides only a brief examination of his music. Tim Rutherford-Johnson provides useful interpretative arguments about Chatham's work for electric guitars, including *An Angel Moves Too Fast to See* in *Music After The Fall: Modern Composition Since 1989*. Nonetheless, there is a lack of musical detail to back up the interpretations of these compositions, and errors in describing the aforementioned work and its performance as being comprised of the composer and his 'own band of four guitarists, one bassist, and one drummer, who act as leaders for the other hundred players'.⁸⁰ Chatham performs this composition with the assistance of six section leaders – and three in the rewritten *A Secret Rose* – who play guitar intermittently while directing the assembled musicians as sub conductors, with the bassist and drummer following the directions of the composer/conductor. This is indicative of the lack of substantial, in-depth research on Chatham's work to date. Thus, I examine the practical concerns in this work in which the composer employs notation, conducting, improvisation, separate movements, and tuning groups, to determine the distinguishing features of the composition and the social and political dimensions import of the work.

Chapter Nine provides a reading of *A Crimson Grail* (2005) to study Chatham's musical language, whereby composition and performance combine to create intense listening experiences. I build upon Sean Higgins brief reading of *A Crimson Grail* using Deleuzian theory also. Here, I understand Higgins' use of 'abstract sound' or 'noise', his term for 'an indistinct apparition' that a listener grasps toward, to be the timbre of the guitar orchestra of over one hundred musicians playing densely layered and repetitive music.⁸¹ Higgins asserts that the result of this practice is 'a shifting of the auditory frame from the sensible to

⁷⁹ Kyle Gann, *American Music in the Twentieth Century* (New York: Schirmer, 1997).

⁸⁰ Tim Rutherford-Johnson, *Music After The Fall: Modern Composition and Culture Since 1989* (California: University of California Press, 2017), 194.

⁸¹ Sean Higgins, 'A Deleuzian noise/excavating the body of abstract sound' in Brian Hulse and Nick Nesbitt (editors), *Sounding The Virtual: Gilles Deleuze and the Theory and Philosophy of Music* (Surrey: Ashgate, 2010), 75.

that which gives rise to the sensible', an encounter with one's being, or animating principle, through an audible expression of hidden forces, 'harnessing "nonsonorous forces" and making them sonorous'.⁸²

This evocation of 'forces' draws upon Deleuze's reading of art's power to enliven:

How could sensation sufficiently turn back onto itself, expanding and contracting, to capture the non-given forces that it provides us, in order to make insensible forces sensible and raise itself to its own conditions? It is in this way that music must render non-sonorous forces sonorous.⁸³

While Deleuze does not develop this idea to explain how music might practically 'render non-sonorous forces sonorous', neither does Higgins apply it in any great detail to Chatham's music. I interpret this as follows: the forces rendered sonorous are of life itself in its immanence (or as Deleuze terms it 'A LIFE') realised through the individual as the source of their subjectivity, and as an animating principle.⁸⁴ Rather than as the revelation of a unitary meaning of life, I suggest this occurs via a peculiar (postmodern) immanent sublime of music, which seeks to alter consciousness by making prepersonal forces manifest for an individual through a profound *experience* of life.

Lawrence Jay Rizzuto terms Chatham's aesthetic as 'Post-minimal Punk' in a reading of *A Crimson Grail*.⁸⁵ Here, he presents a plausible case that the composer's music combines 'the aggressive musical tendencies of punk with post-minimalism specific to [an] unconventional adaption and use of the electric guitar' and that 'Chatham widened the landscape of American experimental music while cleverly engaging participants and listeners in his distinct musical blend of punk and post-minimalism'.⁸⁶ However, there are several factual errors in relation to the music's practical aspects; for example, the composer's music for electric guitar never uses 'distortion',⁸⁷ the use of 'just intonation' is not one

⁸² Ibid.

⁸³ Gilles Deleuze, *Francis Bacon: The Logic of Sensation* (translated by Daniel Smith) (Minneapolis: University of Minneapolis Press, 2003), 48.

⁸⁴ Gilles Deleuze, 'Immanence: A Life' (1995), *Pure Immanence: Essays on a Life*, edited by Gilles Deleuze (New York: Zone Books, 2005), 27.

⁸⁵ Lawrence Jay Rizzuto, 'The Post-Minimal Punk in NYC: A Study of Rhys Chatham and *A Crimson Grail*', *Mosaic: Journal of Music Research*, Vol. 3, 2014, <http://gsa.buffalo.edu/MUGSA/mosaicjournal/vol3/rizzuto/rizzuto.pdf>. Accessed 1 March 2015.

⁸⁶ Ibid, 1.

⁸⁷ Ibid, 2-3.

of punk rock's characteristic traits,⁸⁸ its aesthetic is not commonly associated with 'dissonant tunings',⁸⁹ and the performance and composition of *A Crimson Grail* does not include 'plucking or strumming methods near the bridge, the nut, or tuning pegs'.⁹⁰ As is the case for the majority of writing on Chatham's music, Rizzuto and Higgins' analyses lack accurate and detailed technical descriptions of key aspects of the compositions and how they function in performance. Moreover, the aesthetics are proposed without linking them clearly to the practical aspects in a rigorous and substantial manner.

I endeavour to fill in the gaps in the knowledge through a reading that reveals the aesthetic and practical components of composing, performing, and listening to this music, and its cultural significance. 'Conclusions and Future Research Directions' ends the thesis based upon the arguments and evidence presented, and with suggestions for further research in this area. This overall conclusion also provides a final evaluation of Chatham's wider significance as a composer.

I have outlined the context and rationale for this research, set out the aims and issues, and summarised the available evidence base, relevant to this thesis to follow. In the next chapter, I will use this interpretative framework to develop and expand upon the arguments presented here.

⁸⁸ Ibid, 3.

⁸⁹ Ibid.

⁹⁰ Ibid, 6-7.

Part One: 1952-1978

***The Development of Chatham's Musical Aesthetics and
Practice***

Chapter Two: Expanding Musical and Perceptual Horizons (1952-1970)

In this chapter, I map the development of Chatham's aesthetics and practice, encompassing his formative experiences with early, serialist, avant-garde, electronic, minimalist music, and the crucial influence of John Cage, especially, the expansion of the sound palette in avant-garde composition, connected with modes of listening, which seek to evoke immanence through music. These experiences with contemporary classical and avant-garde music led to Chatham's involvement with Morton Subotnick and the New York University (NYU) studio. Here, I outline the significance of Chatham's electronic music, and the Electric Ear concert series, including a Terry Riley performance. The work of composers Maryanne Amacher, Charlemagne Palestine, and Éliane Radigue, and the perceptual fascination in the drone minimalism from the NYU studios will be examined to determine its influence on Chatham's development too. The relevance and nature of his tuning studies and work, and their import for his music is also explored.

2.1 Formative Experiences: Early Music, Modernism, and John Cage

The earliest memory I have of hearing music was at my parents' apartment in Greenwich Village in New York when I was about 5 years old. It was Stravinsky's *Histoire du Soldat*. It still brings tears to my eyes when I hear it, especially the main trumpet solo in one of the sections. The first pop song I remember hearing — this was much later, when I was 11 — was Nancy Sinatra's *These Boots Are Made For Walking*. While I must say that it doesn't bring tears to my eyes, I still kinda like it! Although whilst listening to it that first time, I felt a bit like a secret agent, spying on the other camp, as it were.¹

Rhys Chatham was born in New York on 19 September 1952. His parents Price and Georgina lived in an apartment at 56 MacDougal Street in Greenwich Village, Manhattan; a neighbourhood where Chatham spent much of his childhood and early teens. 'The Village', as it is known, was a haven for artists,

¹ Benjamin Sand, 'Into the Mind of Rhys Chatham', 2012, <http://www.badsoundsmagazine.com/article/into-the-mind-of-rhys-chatham/>. Accessed 21 September 2013.

musicians, painters, poets and writers, especially during the 1950s when it was associated with a nonconformist lifestyle. Price was an early music enthusiast and virginals player, and Georgina a violist, and Chatham grew up in a home where music was played regularly. He recalls, 'we listened to music from the Queen Elizabethan period, we went up to Bach, skipped over the romantic period'.²

Under his father's influence, Chatham suggests he became 'a devotee' of early music – particularly, composers John Bull and Giles Farnaby – which he began to play on the virginal.³ The use of modalities in early music also prefigured Chatham's later interest in this area. In addition to the keyboard, Chatham began to play clarinet at eight years of age. His parents educated him privately, and as a result, he developed rapidly in a household where he was encouraged to play music and read on a variety of topics. Family friends included early music enthusiast Albert Fuller, harpsichord-maker Hugh Gough, and the New York Philharmonic's pianist Paul Jacobs – a social circle that would enrich Chatham's musical development. For instance, Jacobs gave his time to assist Chatham with reading through the contemporary flute repertoire – including Boulez's *Sonatine for Flute and Piano* (1946) – when he began his studies of the instrument shortly thereafter.

At age thirteen, Chatham began to study flute at the Third Street Music School Settlement, an instrument that he would develop a level of virtuosity on. He continued to work with the instrument subsequently, and during the last decade he has played music in solo, duo, and trio configurations using alto, bass, and C flutes, often in addition to electric guitar, trumpet, and voice. His initial study of the repertoire for flute featured works by Luciano Berio, Pierre Boulez, Mario Davidovsky, Oliver Messiaen,⁶ Edgard Varèse, and Stefan Wolpe, and led to his involvement with contemporary classical music:

I did have a wonderful flute teacher and her specialty was contemporary music, and so when I wanted to play *Density 21.5*, I had no problem because she was playing *Density* so she was happy to teach me. And then we studied Pierre Boulez *Sonatine for Flute and Piano*, and of course I went to the Lincoln Centre

² Charles Amirkhonian, 'Other Minds Presents: An Interview with Rhys Chatham' 2013, <http://radiom.org/detail.php?omid=OMP.2013.06.08>. Accessed 20 September 2013.

³ Ibid.

⁶ Oliver Messiaen, *Le Merle Noir* (1952), for flute and piano.

library and got out Stockhausen's Piano (*Klavierstücke I-XI*) pieces [...] I listened to everything Webern and Schoenberg ever did.⁷

By studying pieces such as Varèse's *Density 21.5* (1936) and Stockhausen's *Klavierstücke I-XI* (1956), he became familiar with the 'open work' and alternative forms of notating music, and how an interpretation of the music differed according to the performer's choice from the score.

Umberto Eco identifies Stockhausen's aforementioned piece along with Luciano Berio's *Sequenza 1* (1958) – another work that Chatham would study – as examples of open works in music.⁸ Berio's *Sequenza 1* for solo flute used proportional notation that granted the performer a degree of freedom to interpret the rhythms of the work, Chatham would later propose that these methods of notation opened up 'the possibility that traditional ways of writing music might in fact be forcing the listening into fixed ways of hearing'.⁹ Indeed, his own later music would likewise seek to liberate the composer, listener, and performer from the regimentation of a musical score in distinct ways.

These formative experiences with modern music were complemented by studies in counterpoint and harmony at the Manhattan School of Music. Chatham indicates how his initial experience of composition led to a desire to organise sound:

Donald Stratton did this theory class and while he was teaching us theory, he made us do pieces because everyone was a musician. And my pieces were post-serialist music pieces [...] Stratton taught me about tone rows: original, retrograde, reverse of retrograde, inversion... and then I realised I could subject a serial technique to all the parameters of music.¹⁰

He would continue composing using these formal, post-serial methods until seventeen years of age, exploring the twelve-tone system with a devotion, enthusiasm, and rigour characteristic of his approach to music. During Chatham's mid-teens, his stance was unequivocal, 'I was totally serialist, totally atonal, I didn't want to hear anything about harmony and II-V-I progressions, or anything like that. If it wasn't atonal or if it wasn't at least noise you could just

⁷ Chatham, in interview with the present author, 2013.

⁸ Umberto Eco, 'The Poetics of the Open Work' (1959), Claire Bishop (editor), *Participation: Documents of Contemporary Art* (London: Whitechapel Gallery, 2006), 20-40.

⁹ Chatham, '5 Generations of Composers at the Kitchen' (1992), 9.

¹⁰ Chatham, in interview with the present author, 2013.

leave that at the door, as far as I was concerned'.¹² He would also later compose and perform *Echo Solo* (1989) for midi-keyboard, a combination of Boulez's serial techniques, John Cage's aleatory procedures, and a tuning system inspired by La Monte Young.

When Chatham borrowed *Silence* by John Cage (1912-1992) from the Lincoln Centre library in 1963, it signalled the beginning of a life-long engagement with the composer's music and philosophy. For Chatham, Cage is first and foremost a significant aesthetic influence, yet this influence also has a practical component. Thus he affirms that '[Cage's] writing profoundly influenced many, many people, including myself'.¹³ I focus upon two interrelated facets of Cage's work and its import for Chatham as a composer, namely, an expansion of sounds used in avant-garde composition, and a focus upon immanence (and conscious expansion) through listening to music.

From the 1940s onwards, Cage's aforementioned innovations inspired a good deal of subsequent avant-garde adventurousness and conceptualism. Douglas Kahn establishes the significance of Cage, after Luigi Russolo had 'inaugurated avant-gardism in music when he questioned the nature of musical materiality',

It was Cage who took Russolo's impulse to its logical conclusion when he proposed that any sound can be used in music; there need not be even any intention to make music for there to be music, only the willingness to attune to aural phenomena. In other words, sounds no longer required any authorial or intentional organization, nor anyone to organize them – just someone to listen. This new definition of music served to extend the range of sounds that could qualify as music raw material as far as possible into the audible, or potentially audible, world. Categories like dissonance and noise became meaningless, and the line between sound and musical sound disappeared; every sound had become musical sound.¹⁴

Cage encouraged a listener to determine their relationship to sound – freed from the domineering authorship and intentionality of the composer – via an immanent engagement through music. He states:

¹² Ibid.

¹³ Ibid.

¹⁴ Douglas Kahn, 'The Latest: Fluxus and Music' (1993) *Sound (Documents of Contemporary Art)*, edited by Caleb Kelly (Massachusetts: MIT Press), 30.

A man is a man and a sound is a sound. To realize this, one has to put a stop to studying music. That is to say, one has to stop all the thinking that separates music from living. There is all the time in the world for studying music, but for living there is scarcely any time at all. For living takes place each instant and that instant is always changing. The wisest thing to do is open one's ears immediately and hear a sound suddenly before one's thinking has a chance to turn it into something logical, abstract, or symbolical. Sounds are sounds and men are men, but now are feet are a little off the ground.¹⁵

During the 1960s and thereafter, Chatham began to develop music that likewise privileged modes of listening connected with immanence. Similarly to Cage, he created music focused upon rhythm, texture and timbre, rather than melodic lines. Also, the heterogeneity and hybridity of both composers' work consisted of combining a variety of aesthetics and practices that extended avant-garde composition into new areas, using whatever sound (and thus musical) resources that they deemed appropriate.

Cage's fascination with sounds outside the twelve chromatic notes, listening processes, and the consciousness-altering possibilities inherent therein established a precedent for these concerns in Chatham's music. Cage's 4' 33" (1952) afforded a space for contemplative listening to the sounds occurring within a listener's perception of their immediate surroundings. By bringing an individual's focus to the immediate environment and their perception of it, the work sought to provide an experience of immanence through this music. Chatham acknowledges this is significant because 'all of a sudden you realise, the whole environment is this world of music, and all of a sudden, we become aware of this in listening to this piece'.¹⁶ Indeed, Chatham viewed the development of his own aesthetic position as exploring the freedoms afforded by Cage:

The classic aesthetic question simply asked, "What can be said to be beautiful?"; the modern aesthetic question asked, "What can be said to be art?"; the post-modern question asks, "What can be said to be beautiful?"; but with one difference (to quote Cage quoting D. T. Suzuki¹⁷): "Our feet are a little bit off the ground".¹⁸

¹⁵ Cage, *A Year From Monday*, 2009, 97-98.

¹⁶ Chatham, in interview with the present author, 2013.

¹⁷ The above quotation refers to Cage citing Dr. Suzuki when discussing Zen Buddhism: "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" (Cage, *A Year From Monday*, 2011, 96).

¹⁸ Chatham, 'Composer's Notebook 1990: Toward A Musical Agenda for the Nineties', 1994.

A direct experience of 'sound-in-itself', in the here and now, is privileged also in Chatham's post-Cagean aesthetics, as a way to facilitate immanent experiences rather than 'logical, abstract, or symbolical' ones.¹⁹ Branden W. Joseph argues that this is one of the goals with Cage's music – often manifesting as indeterminacy in composition, performance, and listening – to 'eliminate as much as possible from the acoustical experience the creation of any abstract form that could be received as existing above, beyond, or outside, the immanent realm (what Deleuze and Guattari, discussing Cage, amongst others, would term a "plane of immanence")'.²⁰ I concur with Joseph's reading, and will outline how this aesthetic would manifest prominently in Chatham's subsequent studies and work, and his music thereafter.

Cage professed the purpose of music for him was its edifying experiential, spiritual component, because 'from time to time it sets the soul in operation. The soul is the gatherer-together of the disparate elements (Meister Eckhart), and its work fills one with peace and love'.²¹ Specifically, I emphasise how Cage connects the integrative function of music for a listener with a profound experience of immanence – a sentiment evident in Chatham's work also:

There are two principal parts of each personality: the conscious mind and the unconscious, and these are split and dispersed, in most of us, in countless ways and directions. The function of music, like that of any other healthy occupation, is to help to bring those separate parts back together again. Music does this by providing a moment when, awareness of time and space being lost, the multiplicity of elements which make up an individual become integrated and he is one.²²

Chatham would distil this integral potency of listening to expansive musical sound to privilege the ecstatic, experiential, and immanent dimensions of music through his own work.

The trajectory of Chatham's musical development altered again from 1968, after he began to listen to recordings of American avant-garde music by Cage, Pauline Oliveros (1935-2016), and Morton Subotnick (b. 1933). Chatham's interest in Cage brought him into contact with a recording of *Fontana Mix* (1958)

¹⁹ Cage, *A Year From Monday*, 2009, 97-98.

²⁰ Joseph, *Beyond the Dream Syndicate: Tony Conrad and the Arts After Cage*, 2008, 78.

²¹ Cage, *Silence*, 2011, 62.

²² Cage, *John Cage - Writer: Previously Uncollected Pieces*, edited by John Cage and Richard Kostelanetz (Limelight Editions: New York, 1993), 41.

on an LP also featuring Berio and Ilhan Mimaroglu in 1968.²³ As a result of this and other recordings, he became aware of electronic music and its approaches to musical composition freed from European tendencies toward fully notated scores. Pauline Oliveros's *I of IV* (1966), a twenty-minute piece of electronic music composed at the University of Toronto using tape delay, was another influential recording that Chatham listened to first in 1967.²⁴ Morton Subotnick's *Silver Apples of the Moon* (1967) for Buchla synthesizer also provided Chatham with further inspiration for making music by electronic means and led to significant developments for him.²⁵

2.2 Morton Subotnick, the NYU Studio, and Chatham's Electronic Music

I read an article in *The New York Times* about this interesting composer named Morton Subotnick who was doing cool things with this synthesizer called the Buchla... and then all of a sudden I had an opportunity to take a course with him through Third Street Music School.²⁶

In 1968, Chatham's engagement with an experimental art music tradition deepened considerably through his studies with Morton Subotnick. He was chosen as one of four music school students to attend the nearby New York University (NYU) studios once a week for lessons with Subotnick, and to compose a piece for the Buchla 100 modular synthesizer (*Figure 2.1*). This analogue instrument featured additive, frequency modulation, and subtractive synthesis, a variety of envelopes, filters, oscillators, plus a sequencer and touch-sensitive plates (rather than a keyboard controller).²⁷

²³ Cage, *Fontana Mix*, on John Cage, Luciano Berio, Ilhan Mimaroglu, *Electronic Music*, Turnabout, TV 34046S, 1967.

²⁴ Pauline Oliveros, *I of IV* (1967) on Steve Reich, Richard Maxfield, and Pauline Oliveros, *New Sounds in Electronic Music*, Odyssey Records, Odyssey, 32 16 0160, 1967.

²⁵ Morton Subotnick, *Silver Apples of the Moon*, Nonesuch, H-71174, 1967.

²⁶ Chatham, in interview with the present author, 2013.

²⁷ For a comprehensive overview of the Buchla 100 series see: '100 Series – Buchla', *Encyclotron*, 2017, <http://encyclotron.com/synthesizers/buchla/100-series-r828/>. Accessed 23 March 2017.



Figure 2.1: Chatham operating a Buchla synthesizer at the NYU studio, Greenwich Village (uncredited, 1968, courtesy of the composer).

Chatham recounts his experience of this class with Subotnick:

Each week he focused on a different parameter of music. One week he focused on amplitude, and we looked at gates. Other weeks it was about frequency and then duration. He also played musical examples, like *Poème électronique* (1958) by Varèse. By the end of the course we had a very, very good introduction to electronic music and we finished by doing five-minute pieces on Morton's original Buchla 100 series synthesizer. I fell in love with the synthesizer, so [after the final class], I went up to him and asked whether it

might be possible to study privately, and he graciously allowed me to do this on weekends after the workshop was over.²⁸

Charles Amir Khanian establishes that Subotnick 'singled out Chatham as surprisingly well-read in literature and music', despite being only sixteen years of age.²⁹

At this point, Chatham was in the process of absorbing influences and figuring out his musical allegiances, and although he had encountered Cage's ideas, he had yet to fully embrace downtown art, the scene that he would be subsequently associated with. Significantly, Chatham suggests that when he began to make electronic music at the NYU studio using the Buchla, he was 'a post-serialist [...] essentially an "uptown" composer by orientation', a position he would most definitely abandon thereafter as he developed an affinity with downtown music.³⁰

Kyle Gann provides a useful perspective on the distinctions between 'downtown' and 'uptown' music during this period:

The Uptowners, such as Milton Babbitt and Jacob Druckman, wrote complicated music in European genres, heavily dominated at that time by Arnold Schoenberg's 12-tone thinking and its derivatives. Downtown music was simpler and less pretentious, drawing on the nature- and accident-accepting philosophy of John Cage. Conceptualism and minimalism were, then, the two primary Downtown movements.³¹

Gann establishes that 'downtown music had begun in 1960 when Yoko Ono, a pianist soon associated with the Fluxus movement, opened her loft for a concert series organized by La Monte Young and Richard Maxfield', a reaction to the perceived elitism of post-serialism.³² Milton Babbitt's 'Who Cares if You Listen?' article from 1958 is often cited as an example of the entrenched position of

²⁸ Chatham, in Gluck, 'Nurturing Young Composers: Morton Subotnick's Late-1960s Studio in New York City', 2012, 74.

²⁹ Charles Amir Khanian, quoted in Janos Gereben, 'Chatham's Guitars on Other minds (Not Yet Mine)', 2013, <https://www.sfcv.org/article/chathams-guitars-on-other-minds-not-yet-mine>. Accessed 10 October 2013.

³⁰ Gluck, 'Nurturing Young Composers: Morton Subotnick's Late-1960s Studio in New York City', 2012, 74.

³¹ Gann, *Music Downtown: Writings from The Village Voice*, 2006, xiii.

³² *Ibid.*

academic and modernist uptown composition aimed at an 'elite' group of 'serious' listeners, in defiant opposition to music made for the populace.³³

Henry Flynt observed the cultural climate in New York's downtown art scene was driven by 'the idea of total non-traditionalism [and] aggressive experimentation'.³⁴ Around 1968, Chatham became aware of the breadth of activity downtown through Jackson Mac Low and La Monte Young's *An Anthology of Chance Operations*.³⁵ The full title of this collection referred to a plenitude of musical possibilities, many of which were explored subsequently in Chatham's own body of work: *chance operations concept art anti-art indeterminacy improvisation meaningless work natural disasters plans of action stories diagrams Music poetry essays dance constructions mathematics compositions*.³⁶

The collection provided insights into downtown music; for example, how a composer might create music without a notated score: Young's *Composition 1960 #5* (1960) turned a number of butterflies loose in the performance area, and *Piano Piece for David Tudor #1* (1960) provided a bucket of water and bale of hay for a piano to drink and eat. As well as displaying a playful sense of humour not commonly associated with 'serious' European classical and uptown music, the performances of downtown music sometimes used non-professional musicians, and incorporated sounds that may not have been considered musical previously (in a manner that built upon Cage's endeavours). These are elements that Chatham would distil and synthesise with others in his later work for electric guitar.

During a period when composers encountered difficulty in having their compositions performed, electronic music allowed the music of young composers, including Chatham, to be realised using synthesizers and tape recorder. As artist-in-residence at the NYU School of the Arts in 1966, Subotnick had set up an off-campus studio for the NYU Intermedia Program (along with visual artist Len Lye, later replaced by Tony Martin): 'NYU gave me

³³ Milton Babbitt, 'Who Cares if You Listen?' *High Fidelity*, vol. 8, no. 2, February 1958, 38-40 and 126-127.

³⁴ Flynt, in Benjamin Piekut, '119 Bank St., La Monte Young Apt., (2 of 3)', 2008, Video Interview, <https://www.youtube.com/watch?v=NgpYrHbQKgw>. Accessed 19 August 2015.

³⁵ Jackson Mac Low & La Monte Young (editors), *An Anthology of Chance Operations*, 1963.

³⁶ *Ibid.*

a studio on Bleecker Street, and at my request, a “Buchla” with full sound and light capability’.³⁷ *Electronic Music Study No.1* (1968) for audiotape is the earliest recorded entry in Chatham’s list of compositions; it is of nine minutes duration, and was first performed at the NYU School of the Arts (undated).³⁸ *Electronic Music Study No. 2* (1968), of twenty minutes duration, was also created at the studio using the Buchla and audiotape. No recordings of these works are presently available, as they have been lost. Nonetheless, the composer describes this early electronic music as follows:

I was in the studio composing music that sounded not unlike *Silver Apples of the Moon* or not unlike the *Wild Bull* by Morton Subotnick, it’s this [...] modular, sequencer-based, non-pitch orientated [...] Buchla kind of music which has a characteristic sound.³⁹

Crucially, Subotnick’s tuition focused upon musical counterpoint as a primary compositional strategy rather than harmony, and laid the foundations for the multiple, interwoven rhythmic patterns in Chatham’s music for electric guitar. For instance, this electronic music was ‘heavily oriented towards the sequencer. It was specifically playing with polymeric rhythms, [...] working with two sequencers in which one was set to five, the other set to seven. [...] A number of things like that going on’.⁴⁰ This polyrhythmic complexity would appear in Chatham compositions, often in combination with iterated melodic lines, and can be directly traced to this electronic music (see Chapter Eight of this thesis).

At NYU, Chatham worked alongside a talented group of young composers who operated primarily in the context of drone-based minimalism and electronic music. This post-Cagean downtown art sought to expand avant-garde practice and challenge established notions of ‘serious’ music. Indeed, his subsequent involvement in minimalism came about as he was drawn to a downtown tradition opposed to uptown’s perceived elitist and overly-cerebral character:

Music had become practically a platonic thing existing in an ethereal world. And, again, to apprehend it you had to either have your Master’s degree in music or be in love with someone who had one. [...] Things had gotten so intellectual.

³⁷ Morton Subotnick, ‘Music As Studio Art’ in David W. Bernstein, *The San Francisco Tape Music Center: 1960s Counterculture and the Avant-garde* (California: University of California Press, 2008), 115.

³⁸ Chatham, ‘Music Catalog’, 2005, <http://www.rhyschatham.net/nintiesRCwebsite/Catalog.html>. Accessed 21 October 2013.

³⁹ Chatham, in interview with the present author, 2013.

⁴⁰ Gluck, ‘Nurturing Young Composers: Morton Subotnick’s Late-1960s Studio in New York City’, 2012, 74.

And then we had composers like La Monte [Young] and Terry Riley, and Tony Conrad. And then after them, you know, Philip Glass, Steve Reich and Charlemagne Palestine that made the music rigorous yet accessible.⁴¹

Although Subotnick had connections with uptown music through the Columbia-Princeton Electronic Music Center (New York) and composers such as Milton Babbitt, the aesthetics and practices of artists at the NYU studios resonated with the downtown scene. Charlemagne Palestine, one of the composers working at the NYU studio, recalls, 'it was understood that we were all part of an underground and alternative society'.⁴²

Moreover, Subotnick had been closely involved with the San Francisco Tape Music Center during the 1960s – that had intersections with youth culture and psychedelic rock 'n' roll – before his relocation to New York. Robert J. Gluck notes that Subotnick's 'relocation paved the way for the unanticipated development of a new center of creative musical activity in New York's Greenwich Village, home to both New York University and the East Coast's major psychedelic culture'.⁴³ Psychedelic culture is defined as art, culture, or music based upon experiences induced by psychedelic drugs.

The term 'psychedelic' was coined by Humphry Osmond, who refined Aldous Huxley's suggestion 'phanerothyme' (meaning 'to manifest soul'), as an apt term for the LSD (Lysergic acid diethylamide) experience.⁴⁴ Julia Cresswell establishes the etymological origins of psychedelic as: 'psyche' meaning 'breath, life, soul' and 'delos' meaning 'clear, manifest'.⁴⁵ Thus, psychedelic culture was originally understood as signifying an experience through which an animating principle – the self, or the anima when later deployed in psychology and psychiatry – that perpetuates and sustains sapience (self-consciousness) or perception is conceivable for an individual. I argue that the revelatory, transformative power of vanguard art music has analogies and connections with practices designed to alter consciousness profoundly, including psychedelic culture.

⁴¹ Ibid.

⁴² Palestine, in Gluck, 'Nurturing Young Composers', 71.

⁴³ Gluck, 'Silver Apples, Electric Circus, Electronic Arts, and commerce in late 1960s New York', 2009, 149.

⁴⁴ See Aldous Huxley's letter to Doctor Humphry Osmond: '1956 Letters' in Aldous Huxley, *Moksha: Aldous Huxley's Classic Writings on Psychedelic and Visionary Experience*, edited by Michael Horowitz and Cynthia Palmer (Vermont: Park Street Press, 1999), 107.

⁴⁵ Julia Cresswell, *Little Oxford Dictionary of Word Origins* (Oxford: Oxford University Press, 2014), 222.

2.3 The Electric Ear, the Ecstatic Moment, and the Minimalist Epiphany

In an era of art ‘happenings’ and multi-media crossovers, Chatham’s experiences of a new music concert series at a psychedelic club called the Electric Circus proved formative. Ted Coons, a Professor of psychology at NYU, details the set-up he encountered on his initial visit to the Electric Circus, located at 23 Saint Mark’s Place in Manhattan’s East Village (*Figure 2.2*):

Besides the rock group [The Mothers of Invention], there was also Mort Subotnick’s computer-generated music, Tony Martin’s colorful swirling light show, plus strobes, frenetic dancing, and — believe it or not — Bach & Brahms mixed in. It was literally a multimedia-multiera circus and I was “There!” It just blew my mind and, Wow [sic], you didn’t need any drugs to do it!⁴⁷

This capacity to generate profound experiences at the Electric Circus was prescient for Chatham’s own music. After his first experience at the club, Coons was approached by concert producer Thais Lathem who sought assistance organising a concert series, and with help from Subotnick, Tony Martin, and David Rosenboom, the Electric Ear took place ‘each Monday night in the [Electric] Circus during the summer of 1968 and spring of 1969’.⁴⁸ Significantly, this directorship addressed Subotnick’s vision of a collaboration between avant-garde and commercial culture that would evoke ‘the ecstatic moment [whereby] music becomes not a tune or a rhythm, but part of your sensory experience’.⁴⁹

⁴⁷ Ted Coons, in Taliesin Thomas, ‘Interview with Dr. Ted Coons’ in *Institute for Doctoral Studies in the Visual Arts Newsletter*, Issue 8, Spring 2015, <http://www.idsva.org/newsletter-spring-2015/2015/3/17/interview-with-dr-ted-coons-february-15-2015>. Accessed 18 July 2015.

⁴⁸ Coons, in *ibid*.

⁴⁹ Gluck, ‘Silver Apples, Electric Circus, Electronic Arts, and commerce in late 1960s New York’, 2009, 150.



Figure 2.2: The lighting and visual projections inside the Electric Circus during this period (uncredited undated, <http://bit.ly/2lnVCen>. Accessed 28 December 2016).

Keith Potter confirms that Subotnick's involvement as artistic director of the venue contributed to it becoming 'a crucial venue in the evolution of the late 1960s "alternative" scene'.⁵⁰ Coons details the Electric Ear new music series at the club:

The entire disco space, electrical/computer facilities, and technical staff were available to that evening's composer. Leading off with John Cage, among these were Lejaren Hiller, Pauline Oliveros, Salvatore Martirano, Terry Riley, Subotnick/Martin, and Rosenboom.⁵¹

Chatham attended this first event featuring David Behrman, John Cage, Lowell Cross, Gordon Mumma, and David Tudor performing Cage's *Reunion* on 27 May 1968.

Reunion was non-notated music that explored Cage's interest 'in music that isn't written, and so, isn't composed but simply performed... [with] no barrier between what we're doing and what you're hearing'.⁵² The performance was structured using aleatoric methods 'in which games of chess determined the

⁵⁰ Potter, *Four Musical Minimalists*, 2002, 134.

⁵¹ Coons, in Thomas, 'Interview with Dr. Ted Coons', 2015.

⁵² Cage, in Adrienne Clarkson, *The Day it Is*, Canadian Broadcasting Corporation, 18 April 1968.

form and acoustical ambience', as the players moved their pieces, music was played through speakers within the venue, triggered by gates connected to the chessboard.⁵³ This manner of performing in the moment may well have appealed to Chatham, and heralded his imminent involvement with minimalist music that also emphasised being with sound in its immanence. While one reviewer concluded the event was 'lousy chess and lousy music', the series as a whole certainly proved formative for Chatham, and for developments in contemporary art music.⁵⁴

The critic Donal Henahan proposed that the Electric Ear series was worthwhile, observing:

About half the time, they bored, infuriated or depressed us, too, but if experimental art succeeded in giving pleasure all the time, it would not be necessary to call it experimental, would it? Although their efforts to amuse and edify varied widely in intent, quality, exploitation of the hall's technical resources and sheer ambition, one could feel tremors of sympathetic connection ... What the farthest-out composers seem to be working toward these days is an inwardly turned kind of music-drama, a Theater of the Mind, if you will, in which sounds, lights, movement and a few minimal, suggestive props are used to encourage the spectator to play out some essentially unstageable, poetic experience on a stage erected in his head.⁵⁵

This notion of art that sought to engage an individual's perceptions to render an 'essentially unstageable, poetic experience' is significant in relation to Chatham's subsequent development as I shall outline. It is pertinent to note that the music was often non-dialectical and non-representational in nature (for example, see the discussion of Terry Riley's performance below). Accordingly, Henahan proposes that the music of the series was 'an allusive, never a specific way of addressing the human mind, a magical way of inventing a kind of reality out of the universe's chaos'.⁵⁶

Additionally, there are notable parallels between the perceptual focus of the electronic and minimalist music emerging from the NYU studios and the avant-garde art music of the period, as evidenced in these Electric Ear performances.

⁵³ Lowell Cross, 'Reunion: John Cage, Marcel Duchamp, Electronic Music and Chess (revised and expanded version)', 2008-2009, http://johncage.org/reunion/cross_reunion_revised.pdf Accessed 23 July 2015, p. 1.

⁵⁴ Harold Schonberg, 'Music: Libel on the Bishops and Pawns', *The New York Times*, 28 May 1968, 32.

⁵⁵ Donal Henahan, 'Too Soon To Demand a 'War and Peace'', *The New York Times*, 15 September 1968, 36.

⁵⁶ *Ibid.*

The evocation of strong responses from a listener through an affective and immersive sound that engaged a listener psychophysically by activating autonomic nervous system (ANS) processes was another key component of the Electric Ear.

Coons considers the engagement of ANS processes through music at the club:

Associated with the Electric Ear movement's ability to ENGAGE the baby boomers [the generation born post-1945] was [...] the ability to use and manipulate powerful stimuli that attract attention by their ability to commandeer in playful practice our very basic autonomic arousal processes. These are processes designed to deal with the anticipation of and hopeful success at: 1) coping with threat, or 2) attaining sexual gratification, and 3), in either case, often doing as a tribally and sometimes orgiastically organized group.⁵⁷

For example, by arousal of the sympathetic subsystem of the ANS, an ergotropic trance process (from the bottom up) could be activated through entrainment and frisson – via repetition and volume – in a ritualistic way. This approach affirms Subotnick's vision of a sentient music that can evoke ecstatic states; where music becomes part of one's sensory experience, effectively blurring the boundaries between self and other. On this point, Kathleen Marie Higgins observes, 'whether or not loss of self-awareness is involved, [...] ecstatic states typically involve the elimination of a sense of division between one's own ego and other people'.⁵⁸ This evocation of music's ecstatic and ritualistic dimensions would inform Chatham's musical aesthetics and practice thereafter.

Coons' testimony connects the work of these artists who 'use and manipulate powerful stimuli' directly with the '*forces [that] were at work in the culture at large to break down the barriers between high and low culture*'.⁵⁹ Here, I point out that Chatham would be directly involved in dismantling hierarchical structures in music in New York's downtown scene in the 1970s and 1980s, creating music that sought to engage with an audience on a number of levels simultaneously: emotionally, intellectually/spiritually, and viscerally.

This evocation of ecstatic states through music is documented in minimalist music, particularly, the work of Terry Riley (b. 1935), which Chatham was drawn

⁵⁷ Coons, in Thomas, 'Interview with Dr. Ted Coons', 2015.

⁵⁸ Higgins, *The Music Between Us: Is Music a Universal Language?* 2012, 156.

⁵⁹ Coons, in Thomas, 'Interview with Dr. Ted Coons', 2015.

to at this time. Chatham suggests that the simplicity and tonality of minimalist music in the 1960s was crucial in a decade that placed an 'emphasis on social issues and human rights [and when] it was whispered among certain circles of composers that their music had perhaps become too elitist, existing rarefied in the ivory towers of the university or the government supported radio'.⁶⁰ For instance, Edward Strickland notes of Terry Riley's seminal minimalist work *In C* (1964), 'the free-form communal exuberance of the work embodies the brighter side of the paranoid and jubilant, lacerated and ecstatic sensibility of the 1960s [...]. Its sense of collective ecstasy, free-wheeling improvisation, and trancelike repetition [were] not unamenable to chemical alterations in consciousness'.⁶¹ In this context, a Riley performance at the Electric Circus on 14 April 1969 (*Figure 2.3*) would alter the course of Chatham's musical development, an event that he states 'changed my life, it was an epiphany'.⁶²

Riley played *A Rainbow in Curved Air* (1967) and *Poppy Nogood and the Phantom Band* (1967) in a multimedia concert that exemplified the intriguing nature of the Electric Ear. He recollects, 'inside they were using strobe lights and mylar and projections to create light-illusions. There was this psychedelic sixties' crowd, a mixture of young people, dope-blowing hippies, and academic types who came to check out new music'.⁶³ Potter observes that this was a significant performance in developing Riley's reputation in front of an audience that included composer-performer Philip Glass (b. 1937).⁶⁴

However, the experience did not live up to Chatham's initial expectations and he was distinctly unimpressed by the 'red haired guy, who looked like a hippie, playing circus organ',⁶⁵

I'd seen a score of a composer named Terry Riley that looked not unlike *Variations V* by John Cage, which is kind of noisy. And back then if you were a young composer, if you wanted to be hip, you wouldn't be working within the framework of the major triad or tonality or traditional harmony, but you'd be doing something either extremely atonal or extremely complex or noisy. And

⁶⁰ Chatham, '5 Years of Composers at the Kitchen', in Morrissey, *The Kitchen Turns Twenty*, 1992, 12.

⁶¹ Edward Strickland, *Minimalism: origins* (Indianapolis: Indiana University Press, 1993), 175.

⁶² Chatham, in interview with William Basinski at Café OTO, London, 19 March 2014 (note: the present author attended this event and transcribed some of the material for use in this thesis).

⁶³ Riley, in K. Robert Schwarz, *Minimalists* (London: Phaidon Press Limited, 1996), 48.

⁶⁴ Potter, *Four Musical Minimalists*, 2002, 134.

⁶⁵ Chatham, in Anon., 'The Happening', 2014, <http://dialoguetalk.org/rhys-chatham/the-happening/>. Accessed 25 March 2015.

this score looked particularly noisy, so I thought “Great. I’m going to go to his concert. I’m going to hear some great noise”.⁶⁶

Consequently, *A Rainbow In Curved Air* vexed Chatham to the extent that he would ask the venue to refund the price of entry. He confirms, ‘I wasn’t into this tonal music’.⁶⁷



Figure 2.3: Advertisement for the Electric Ear ‘Spring Series’ including Riley's concert on 14 April 1969 (courtesy of the *Village Voice*)

Upon being refused a refund and returning to the concert, Chatham’s perception of the music changed. Riley’s performance of *Poppy Nogood and the Phantom Band* made a noted impact:

⁶⁶ Chatham, in *ibid*.

⁶⁷ Chatham, in interview with the present author, 2013.

Terry was playing soprano saxophone and David Rosenboom provided a drone on viola. Terry played through two Revox tape recorders spaced 10-feet or so apart, with the left reel of Revox 1 feeding into the right reel of Revox 2. Both of the stereo outputs of Revox 1 and Revox 2 were played back simultaneously, creating a multi-second delay effect. Additionally, the sound from Revox 2 was mixed back into the input of Revox 1, creating a feedback loop, giving the music an eternal kind of feel, featuring layers upon layers of instruments.⁶⁸

Riley's live layering and repetition of musical material in this work of extended duration, in a real-time context, would show Chatham the way forward in his music for electric guitar.⁶⁹ *Poppy NoGood and the Phantom Band* invited a listener to focus on densely layered textural sounds over extended durations free from the distractions of climaxes and harmonic movement. Wim Mertens notes that early minimalism is 'non-dialectical' and 'non-representational' music; thus, opposed to the dialectic of tension and release, and largely unconcerned with expression of subjective feelings, in keeping with Cage's concept of 'sound-in-itself'.⁷⁰ However, I find that while this music may be created with an intent that is free of personal feeling, it privileges a listener's subjective engagement with sound.

The density of these iterated tones and melodic fragments combined with sustained drones in *Poppy NoGood and the Phantom Band*, holds the capacity to induce a 'meditative' or trophotropic trance process by presenting an immersive and intense sound continuum over extended durations (see discussion of Radigue in the section to follow). Dane Rudhyar suggests that 'extended repetition of sequences' of simple tonal motifs in minimalism is

A means to decondition the consciousness, to free it from dependence on classical European forms and the dramatic intensity of Expressionism. It can also be a way of inducing much needed (and much appreciated) mental relaxation and concentration.⁷¹

Significantly, densely-layered textures using repeated tonal sounds, with a propensity to entice a listener's perceptions, are prominent features of Chatham's music hereafter.

⁶⁸ Chatham, in Anon., 'Influences: Rhys Chatham, 2016, <http://www.theransomnote.co.uk/music/influences/rhys-chatham/>. Accessed 21 May 2016.

⁶⁹ Moreover, Chatham acknowledges the influence of this approach upon his own solo performances.

⁷⁰ Mertens, *American Minimal Music*, 1983, 88.

⁷¹ Dane Rudhyar, *The Magic of Tone and the Art of Music* (Boulder: Shambala, 1982), 165.

Bruce Mowson's research on minimalism argues for a Deleuzian 'immanent perception in the moment', as opposed to 'the historical and symbolical model' implied by Jacques Lacan and psychoanalysis.⁷²

A phenomenological approach to aesthetics and composition, in which materialist concerns — that is to say sound as matter with which to provoke (pure) sensation — are privileged over representation, where in the latter case sound and music largely acts as a vehicle for meaning.⁷³

This conception of music as not representational, but rather a direct, embodied, and immediate experience of intensities ('non-sonorous forces') is relevant for the aesthetic and practice that Chatham developed.

Mertens claims that Riley's music takes place in a 'non-dialectical macro time' opposed to traditional clock-time: 'a higher level of macro-time, beyond history, [...] which has been called *now* or *stasis* or *eternity*'.⁷⁴ This music seeks to provide a profound experience of the present moment in a post-Cagean manner, rather than a transcendental beyond. This immanence, or 'being in the moment' as Chatham terms it, would become a central feature of his musical aesthetic. He would develop this aesthetic by combining improvisatory practices from minimalism, as well as approaches to composing and performing from outside a Western classical tradition into new music.⁷⁵

After the Riley performance, Chatham concludes he 'converted to minimalism'.⁷⁶ His devotion to this music, with its aesthetic engagement beyond a classical tradition, would lead to its extension into previously unexplored areas, encompassing underground rock. Indeed, a decade after attending Riley's performance at the Electric Circus, Chatham performed affective, tonal music derived from minimalist strategies in his *Guitar Trio* at another New York rock club, Max's Kansas City, in 1979. His subsequent participation in North Indian classical music with Pandit Pran Nath would parallel Riley's own, and the latter's

⁷² Bruce Mowson, 'Being within sound: immanence and listening' in Cat Hope and Jonathan W. Marshall (editors), *Sound Scripts Volume 2*, (Western Australian Academy of Performing Arts, Edith Cowan University and the Australian Music Centre, 2009), 32.

⁷³ Ibid.

⁷⁴ Ibid, 91-92.

⁷⁵ Chatham, in interview with present author, 2013.

⁷⁶ Chatham, in Andrew Ellis, 'Biennial 2012: A Crimson Grail – Rhys Chatham in conversation' 2012, <http://www.thedoublenegative.co.uk/2012/09/biennial-2012-a-crimson-grail-rhys-chatham-in-conversation/>. Accessed 1 November 2015.

affirmation that ‘music is my spiritual path [...] it’s my way of trying to find out who I am’ would be apposite for Chatham’s own resolute dedication to his art.⁷⁸

2.4 Perceptual Engagements in Minimalist Music

Chatham’s musical development was greatly informed by the minimalism created at the NYU studios using the Buchla synthesizer and audiotape to explore duration, perception, sustained tones, texture, and timbre. This section will focus upon the aesthetics and practices that Chatham assimilated from composers at the studio from 1968 onwards, especially, Maryanne Amacher (1938-2009), Charlemagne Palestine (b. 1945), and Éliane Radigue (b. 1932).⁷⁹ I will highlight the perceptual engagement facilitated by this early minimalism, and how it made expansive listening experiences possible.

To begin, I will examine Amacher’s influence on Chatham. His work as her ‘composer’s assistant’ during his apprenticeship at the studio enabled him to closely observe her approach.⁸⁰ Amacher’s music focused on perceptions of resonance, texture, and timbre over extended durations. Chatham comments, ‘she would just take a single oscillator and only play with very slow variations with [frequency modulation synthesis], with another oscillator at a very low frequency and it would go ‘woo-woo-woo’ [sound of oscillator], changing the shape and just going on forever’.⁸¹ Through frequency modulation synthesis, the timbre of a waveform could be altered subtly, engaging an active listener’s subjective perceptions of acoustic and psychoacoustic phenomena. Amacher details this method as

music that is directed past the processing and control of acoustic information, and goes into the network of the nervous system to what we do with this information perceptually. [...] We ‘listen’ to what our auditory system perceives, detecting extremely subtle changes in the form of the vibration pattern. We ‘hear’ the coding response of an evolved sensitivity extracting information on details of the vibration pattern. That’s where subjective pitch originates.⁸²

⁷⁸ Riley, in Robert Ashley, *Music With Roots in the Aether: Terry Riley* (New York: Lovely Music Ltd., 1976).

⁷⁹ Composers Ingram Marshall (b. 1942), Laurie Spiegel (b. 1945), and Serge Tcherepnin (b. 1941) influenced Chatham’s subsequent music for electric guitar also, albeit to a significantly lesser degree.

⁸⁰ Chatham, in interview with the present author, 2013.

⁸¹ Ibid.

⁸² Amacher, in Eliot Handelman, ‘Ears as Instruments: Minds Making Shapes’, unpublished interview, 1991, <http://raraspeaks.tumblr.com/post/316070088>. Accessed 20 September 2015.

In this way, Amacher's music provided Chatham with an opportunity to observe the fascinating possibilities of skilful timbral manipulation and how, through listening to these sounds, subjective perceptions may be drawn into their experience of this non-representational and non-dialectic music.

Here, Amacher records:

The important thing is not a specific sound, but how we hear sound. People have been rearranging and personalizing melodies that have been in music for ages, not addressing the physics of sound. Rather than listen to a story reported, claim it experientially. If you don't know physics you won't have good stories.⁸³

Amacher's use of 'physics' here is two-fold, referring to the physics (acoustics) and psychophysics (psychoacoustics) of music, and their interrelationship. Physics is understood as the quantitative properties of sound (frequency, resonance, timbre, etc.), and auditory psychophysics as the qualitative observation of auditory psychophysics known as psychoacoustics. Her terms for the experiential component were 'the listener's music' or 'third ear music', to identify when psychophysical responses to beat phenomena and pattern modulation 'create sound as well as receiving it'.⁸⁴

Chatham would later seek to create psychophysiological engagement through the evocation of acoustic and psychoacoustic phenomena, and frisson through his music, including the work for electric guitar, an experiential component he termed the 'listener's story'.⁸⁵ Her formative influence in this regard was also acknowledged when he credited Amacher as the predominant inspiration upon *Ear Ringing* (1976) 'for sine wave generator and psycho acoustic phenomenon'.⁸⁶ Amacher's music impacted upon Chatham's practice when he became a fully-fledged composer at the studios shortly afterwards; he recalls the timbral focus that manifested in his work: 'I wasn't using the sequencer on the Buchla, I was just using the oscillators just going through ring modulators, and using modulation, and working with timbre and music of long duration'.⁸⁷

⁸³ Amacher, in Leah Durner, 'Maryanne Amacher: Architect of Aural Design', *EAR Magazine*, vol. 13, no. 10, February 1989, 28.

⁸⁴ Amacher, in Elisabeth Schimana and Lena Tikhonova, 'IMAFiction #06 13 Maryanne Amacher', 2014, <https://vimeo.com/87401740>. Accessed 21 October 2014.

⁸⁵ Chatham, in interview with the present author, 2013.

⁸⁶ Chatham, 'Music Catalog', 2005.

⁸⁷ Chatham, in Brian Bridges, 'Rhys Chatham Interview', 2003, <http://brianbridges.net/wp-content/uploads/2013/05/Rhys-Chatham-interview-MPhil-edited.pdf>. Accessed 22 July 2015.

Chatham's *Greenline Poem* (1970) would employ these methods in 'an extremely minimal work, a single tone oscillation' of eleven minutes duration for tape debuted at The Kitchen, New York on 1 November 1971 (no recording is presently available).⁸⁸ A focus upon perceptual engagement through acoustic phenomena, long durations, overtones, resonance, sustained tones, and timbre became a perennial focus of Chatham's work thereafter.⁸⁹

Charlemagne Palestine was another influence during this period. Palestine recalls first meeting Chatham at the NYU studios in 1969, 'he was playing flute then and experimenting with the Buchla synthesizer. We became friends'.⁹⁰ Chatham found Palestine's musical focus upon long durations, sonority, and texture using ring modulation and filters music 'very interesting'.⁹¹ Ingram Marshall, a colleague of Palestine's, provides observations on the nature of his work at NYU between 1969-1970:

Access to pure sine wave oscillators and voltage-controlled formant filters [...] allowed him to set up minutely tuned drones in a space [...] [that] had a holy, worshipful aura. [...] Naturally, over a period of time, the tuning of the oscillators would drift ever so slightly, creating new beating tones and strange difference tones, and he would occasionally shift the frequency of the filters to emphasize or de-emphasize certain areas of the harmonic spectrum. If one lingered in these harmonic spaces for a while, the initially imperceptible changes became not only noticeable, but very grand. It was like putting pure sound under a microscope.⁹²

Tom Johnson reports his impressions of Palestine's electronic music drawing a useful analogy between aural illusions generated by perceptions of timbre and related emergent phenomena, and visual illusions generated by colour and patterns:

Different notes seem to protrude at various times, and occasionally a pitch will seem to change octaves. It is often difficult to tell whether some change is actually occurring on the tape or whether it is taking place inside the ear as one's attention shifts from one thing to another. It is similar to Op Art in that it deals with perception, often creating illusions of motion, even when no motion is actually taking place. The effects are subtle, and at first one does not realize

⁸⁸ Bill T. Jones, 'The Kitchen Remembered', *The Kitchen Turns Twenty*, edited by Morrissey, 1992, 79-80.

⁸⁹ Ring modulation brought sum and difference frequencies to his attention.

⁹⁰ Charlemagne Palestine, liner notes to Charlemagne Palestine, Terry Jennings, Tony Conrad, Robert Feldman and Rhys Chatham, *Sharing A Golden Sonority (Golden 4)*, Alga Marghen, plana-P 28NMN.068, 2008.

⁹¹ Chatham, in interview with the present author, 2013.

⁹² Ingram Marshall, liner note essay for Charlemagne Palestine, *Schlingen Blängen* (New World Records, 80578, 1999).

what is happening, but after a while these phenomena can become quite fascinating.⁹³

This drone-based minimalist music would have lasting consequences for Chatham's own musical practice from this period onward, as he continued to focus upon sustaining resonant composite waveforms with marked overtone activity in extended duration pieces. Chatham notes, 'most of the pieces I did at the time [...] were purely electronic, music of long duration. They were made with ring modulators and sine wave generators and focused on overtones and sonority. [...] The work I did in that studio really laid the foundation for how I became a minimalist.'⁹⁴ Palestine departed NYU to study and teach at the California Institute of the Arts in 1970; however, the significance of his continued association with Chatham is discussed in the chapter to follow.

After the NYU studios relocated to East 7th Street in Manhattan's East Village, Chatham met Éliane Radigue, who worked on her music there between 1970-1971. He was captivated by her drone-based minimalism and its tendency to entrance consciousness: an aspect that Radigue ascribed to 'the immense power of the partials, the natural harmonic series within a tone'.⁹⁵

Radigue's 'Number 17' from *Opus 17*, using feedback and tape-loops was particularly significant for him.⁹⁶ The composer maintains that this work of twenty-two minutes duration 'changed the course' of his compositional life.⁹⁷ He observed the 'awe-inspiring' and 'meditative' dimensions of Radigue's complex evolving sonorities in this work, a 'highly personal quality bordering on the mystical' that 'gave one the impression of being in a large cathedral, both in its feeling of vastness as well as producing an effect of somehow being close to the Divine'.⁹⁸ The composer's own profound experiences with music are a notable feature of his musical development, and his own work displayed a desire to evoke and share such occurrences.

Tim Hodgkinson theorises how these profound experiences of music originate:

⁹³ Tom Johnson, 'Charlemagne Palestine's Perception' (1973) in Johnson, *The Voice Of New Music New York: 1972-1982*, 1989, unpaginated.

⁹⁴ Gluck, 'Nurturing Young Composers: Morton Subotnick's Late-1960s Studio in New York City', 2012, 76.

⁹⁵ Radigue, 'Nurturing Young Composers: Morton Subotnick's Late-1960s Studio in New York City', 77.

⁹⁶ Éliane Radigue, *Opus 17*, Alga Margen, plana-R alga045, 2003.

⁹⁷ Chatham, liner note essay for Radigue, *Adnos I-III*, 2002.

⁹⁸ Ibid.

The projection of the sacred is sourced (motivated, in the sense that motivations are the cause of social practices) in the actual vivid and shattering religious or mystical experiences of individuals. And that these experiences are the revolt of the psyche against the language-narrated self. So one's definition of "spiritual music" is music that induces or draws on such experiences. The twist is how.⁹⁹

Johnson identifies Radigue's music as 'clearly religious in nature' as it 'challenged the listener to slow down, be patient, and observe subtle changes. Listening in this way can be considered a form of meditation'.¹⁰⁰ This could feasibly facilitate trophotropic trance processes (from the top down) for a listener by activating the quiescent system. By skilfully manipulating the morphology (overtone structure) or timbre, and texture over extended durations, Radigue creates a subtly shifting sound continuum.

Bruce Mowson observes how this method of composition arouses perceptual responses from a listener and may generate an experience of immanence:

This approach produces a sense of continuum, which is a sequence in which adjacent elements are not perceptibly different though the extremities are distinct, as the sound subtly and gradually transforms: not a progression of stages, but an ongoing process. As a result it is difficult to identify individual events, stages, places or syntax.¹⁰¹

Chatham recounts how this experience is elicited through Radigue's music: 'there is never a still moment [...] everything is always imperceptibly changing', it is this 'ambiguous quality' of perception evoked by the music that can 'create an opening of the mind, [by] the fact of this permanent indecision and shifting: this kind of floating awareness'.¹⁰² Correspondingly, during this time, Chatham also explored additive synthesis in his own work at the NYU studios, to develop timbres from multiple discrete sound waves, layering sustained tones to create music of extended duration.

This timbral focus may encourage a listener's perceptual engagement by privileging 'perceptualization' through drone-based minimalism focused on timbre. Cornelia Fales describes the enigmatic nature of timbre as a decisive musical element in shifting perceptions and altering subjectivity:

⁹⁹ Hodgkinson, 'Holy Ghost' in Zorn (editor), *Arcana V*, 2010, 209.

¹⁰⁰ Tom Johnson, 'On the Fringe of Paris: Pierre Marietan, Eliane Radigue, Horacio Vaggione' (1982) in Johnson, *The Voice of New Music, New York: 1972-1982*, 1989, unpaginated.

¹⁰¹ Mowson, 'Being within sound: immanence and listening' in Hope and Marshall (editors), *Sound Scripts Volume 2*, 2009, 36.

¹⁰² Chatham, liner note essay for Radigue, *Adnos I-III*, 2002.

The cumulative effect of a musical experience of dramatic, subtle, sustained, or sporadic timbre manipulation—the flashing into view of the acoustic world—may move listeners with a range of specificity and emotion: from a more or less vague sense of perceiving something normally imperceptible, to an unaccountable feeling of transcendence or separation from the earthly world (of sources), to a more general notion that music is an imperfect translation of something, to the apprehension of something absent or lost of which a hazy essence is returned through music. It may be, that is, that the inaccessible effects of musical timbre elicit a kind of rorschach subjectivity: detached from the mooring of perceptual constancy, listeners make sense of their experience in whatever expressive currency is around.¹⁰³

This affective aspect of timbre would be explored by Chatham subsequently on a consistent basis, in combination with duration, repetition, and sustained tones; an approach that can generate profound, or sublime experiences of music, and of being within the world.

Here, I concur with Kiene Brillenburg Wurth, who contends,

The nuance of a sound, its most minimal aspect, its timbre (its material but provisional and incidental “impress”) constitutes the punctual presence of the sublime. This “punctuality” is not to say that the sublime is always in time but, precisely, too soon or too late for us – and as such *never* in diachronic time but always already outside of it, briefly skirting it at best. The being *affected* with this brief skirting, inexplicably and almost imperceptibly, is a sublime feeling in its postmodern sense. It is a sense of *quod* (that) rather than *quid* (what), a sense most sharply illustrated by those *déjà vu* sensations stimulating the mind in the imagined certainty that one experiences something familiar, already seen, rehearsed, without yet knowing what it is precisely.¹⁰⁴

These practices coincide with an aesthetic of the postmodern sublime, here defined by Seth Kim-Cohen:

It is only a slight simplification to insist that the postmodern sublime is a reduction of the unrepresentable to an engagement with that very unrepresentability. Artistic progress and innovation are not driven by the need for a more adequate correlation of signifier to signified, but by the effort to more fully come to terms with the impossibility of representation. The sublime is not a matter of form, but of formlessness.¹⁰⁵

The work of the composers at the NYU studios exploring perceptions of self and sound through music would make a lasting impression upon Chatham. This music would seek to evoke and explore the immanent and expansive potentialities of slowly evolving timbres through active listening over long periods of time. He would also pursue formal concerns with acoustics and

¹⁰³ Fales, ‘The Paradox of Timbre’, 2002, 78.

¹⁰⁴ Wurth, *Musically Sublime: Indeterminacy, Infinity, Irresolvability*, 2009, pp. 127-128.

¹⁰⁵ Seth Kim-Cohen, *In The Blink of an Ear: Toward a Non-cochlear Sonic Art*, New York: Continuum Publishing, 2009, 220.

psychoacoustics, drones, extended duration, layering, overtones, perceptual engagement, repetition, sonority, sustained sounds, texture, and timbres in his own subsequent music.

2.5 Expansive Awareness: Tuning Studies

It was the era of psychedelia and expanded consciousness, and sometimes I expanded mine, with a little help from my friends, and the use of completely natural biodegradable plants. Also, to support myself, I was a harpsichord tuner, and I developed an interest in working in harmonics. I realized it was possible to do music with drones and just listening to timbres.¹⁰⁶

As well as the activities at the Electric Circus, the above juxtaposition of avant-garde classical and countercultural experimentation highlights how his formative experiences bridged ostensibly disparate worlds, occurrences that prefigured developments in his own music. Learning to tune harpsichords would prove to be significant for the composer, as would his subsequent expertise with acoustics and tuning systems that brought forth these subtle aspects of sound.

Hugh Gough, one of America's foremost harpsichord makers, and a friend of Chatham's father, was his first tutor in the art of tuning. Chatham recalls this tuition in Greenwich Village: 'I studied with Hugh for a couple of years and then I became his assistant for about eight months, [...] he was teaching me to tune in meantone'.¹⁰⁸ Meantone was the system used for keyboard instruments in Western classical music from the early sixteenth, to the eighteenth-century. Peter Yates points out that this system 'retains the principal just (correct) major thirds but tempers the fifth by tuning them considerably narrower than the fifth of equal temperament', and thus, 'meantone can be tuned very easily and accurately by ear [as] the correct thirds give an exact check on the narrowing of the fifths'.¹⁰⁹ This experience of tuning intervals by ear laid the foundations for Chatham's exploration of other tuning systems and their application in his own music.

¹⁰⁶ Chatham, in Jeff Kaliss, 'Other Minds Lifts the Veil on Rhys Chatham's Grand Secret', *San Francisco Classical Voice*, 2013, <https://www.sfcv.org/article/other-minds-lifts-the-veil-on-rhys-chathams-grand-secret>. Accessed 15 March 2014.

¹⁰⁸ Chatham, in interview with the present author, 2013.

¹⁰⁹ Peter Yates, *Twentieth Century Music: Its Evolution from the End of the Harmonic Era to the Present Era of Sound* (New York: Minerva Press, 1968), 18-19.

Thereafter Chatham was apprenticed to another harpsichord maker, William Dowd to study tuning in equal temperament at his workshop in Cambridge, Massachusetts. After initial difficulties with picking out the acoustic beats of upper partials used to tune the instruments in this system, a breakthrough occurred when Chatham became conscious of the overtones. He describes this occurrence as 'a satori kind of experience' (a spiritual awakening sought in Zen Buddhism).¹¹⁰ He indicates this realisation occurred, 'all of a sudden, I said, "Oh my God, I hear them. That's what they are," and I had realised I had been hearing them the whole time. And in this way I got sensitised to listening to [...] acoustic beats'.¹¹¹

The elusive quality of these acoustic phenomena, linked to the workings of the harmonic series and its correlate timbre, simultaneously drew upon the materiality of sound, and its immateriality (the metaphysical, psychological, or spiritual import it may have for an individual). The revelatory aspect of Chatham's statement has parallels with Huston Smith who noted how 'overtones become distinct in their own right' while listening to the multiphonic chanting of Tibetan Buddhist monks in 1967:

The religious significance of this phenomenon derives from the fact that overtones awaken numinous feelings because, sensed without being explicitly heard, they stand in exactly the same relation to our hearing as the sacred stands to our ordinary mundane lives. Since the object of worship is to shift the sacred from peripheral awareness to focal awareness, the vocal capacity to elevate overtones from subliminal to focal awareness carries symbolic power, for the object of the spiritual quest is precisely this: to experience life as replete with 'overtones' that tell of a 'more' that can be sensed but not seen; sensed but not said; heard, but not explicitly.¹¹²

This integrative function of music is connected with expanding self-consciousness to bring what is at the periphery into a listener's awareness.

Tellingly, a significant number of Chatham's formative musical experiences have 'overtones' of mysticism or spirituality, using similar terminology to describe experiences of music: conversion, devotee, ecstatic, ego-dissolution, epiphany, meditative, ritual, revelation, satori, and so on. Indeed, expanded awareness through music can be analogous to spiritual practices where the

¹¹⁰ Chatham, in interview with the present author, 2013.

¹¹¹ Chatham, in Anon., 'Acoustic Beats', 2014, <http://dialoguetalk.org/rhys-chatham/acoustic-beats/>. Accessed 20 January 2014.

¹¹² Huston Smith, in Elda Hartley, *Requiem for a Faith: Tibetan Buddhism* (Connecticut: Hartley Foundation, 1991).

goal is realisation of integrated states of awareness. J.G. Ballard observes the revelatory capacity of art is its evocation of these experiential states of awareness:

Despite the wonders of human consciousness, [...] our brains have been trained during the evolutionary millennia to screen out all those perceptions that do not directly aid us in our day to day struggle for existence. We have gained security and survival, but in the process we have sacrificed our sense of wonder. The dismantling of these screens and the revelations of the richer world beyond them has long been the task of art and religious mysticism.¹¹³

'Mysticism' is defined for the purpose of this thesis as 'an experiential knowledge of God', identical in kind to gnosis, or an experiential knowing.¹¹⁴ This 'inward journey to our truer and richer selves', as Ballard puts it, equates with profound, sentient states of being where self-conscious awareness is altered beyond 'everyday' perceptual boundaries.¹¹⁵

What is more, the perception of the fundamental and overtones as part of an inseparable, and metaphysical, whole was connected with Eastern music, and the Kirana style of Hindustani vocal music that Chatham would explore subsequently (see discussion of Pandit Pran Nath, and also La Monte Young, in the next chapter). This is apparent in Tuvan throat-singing as a 'drone-overtone' system of music production too, where the drone and its partials are viewed as an inseparable composite, that can nonetheless be manipulated through extended vocal techniques to accent certain partials or groups of partials.¹¹⁶ Independently, Chatham would later develop an analogous method of overtone and timbral manipulation through extended techniques in his non-notated work for electric guitar (see Part Two of this thesis).

Chatham confirms that this concept of listening to the composite sound increasingly became a prominent feature in the Western music he encountered during this era:

At the time we were training, we were just hearing about Ravi Shankar, we were just hearing about instruments like the tambura, and we weren't trained at all in an Eastern kind of way, and when we listened to sound we heard the composite sound but we were hearing primarily the fundamental frequencies. We're

¹¹³ J.G. Ballard, preface to Aldous Huxley, *The Doors of Perception and Heaven and Hell* (London: Vintage Books, 2004), vii-viii.

¹¹⁴ Jean Gerson, in William Harmless, *Mystics* (Oxford: Oxford University Press, 2007), 162.

¹¹⁵ Ballard in Huxley, 2004, viii.

¹¹⁶ See Valentina Suzukei, 'Tuvan Music and the Twentieth Century' in *Journal of Siberian Federal University, Humanities & Social Sciences* vol. 1 no. 3, 2009, 80-93.

positing a C, it's not a composite waveform but is a fundamental frequency, [...] once I heard that [composite waveform], it really opened things up.¹¹⁷

Following this apprenticeship with Gough and Dowd, Chatham became more aware of the natural overtones of sound, and associated ideas, such as beats, sum and difference tones, concerns that the composer would address in his subsequent compositions, and which built upon his knowledge of these elements in electronic and minimalist music.¹¹⁸ These compositions predominantly featured the overtone series, and used his trained ear to identify and tune to extremely precise intervals, and listen to the resultant sound wave as a composite, complex whole. Additionally, these tuning studies prepared Chatham to work with La Monte Young; subsequently, to gain further practical knowledge of acoustics, psychoacoustics, and tuning systems.

His work thereafter deployed a practical knowledge of acoustic phenomena (beats, overtones, sum and difference tones, and so on) to bring forth the previously esoteric ('hidden') aspect of sound in the music. Additionally, he would draw upon a practical knowledge of tuning systems, in combination with compositional strategies and instrumental techniques, to exploit these acoustic phenomena using electric guitars, and with the harmonic series as the basis to generate strong listening experiences through the integral function of music (see 'pleroma music' discussed in next chapter also). Chatham would employ overtone singing on recordings and live performances of his solo and duo performances of music, also using the overtone series as the basis of the harmonic structures in his non-guitar works; for example, 'Outdoor Spell' (2009) on his *Outdoor Spell* (2011) recording features sustained overtone singing throughout (atop trumpet drones), using a distinctive rolling 'rrrr' vocalisation that is skilfully looped and rich in upper partials, that he credits Charlemagne Palestine as being the inspiration for. However, the development of his own compositional voice was some years off, despite the significant progress made while he was still a teenager.

¹¹⁷ Chatham, in interview with the present author, 2013.

¹¹⁸ His work as a harpsichord tuner continued during the early 1970s and would include tuning the instruments of artists such as Albert Fuller, Glenn Gould, Paul Jacobs, and Gustav Leonhardt.

Concluding Thoughts

I have outlined how Chatham absorbed a wide variety of aesthetics and practices stemming from a Western art music tradition: early music, modernist, serialist, avant-garde, electronic, and minimalist music before he reached eighteen years of age, formative experiences that expanded his musical and perceptual horizons, and laid the groundwork for his artistic development. An explorative Cagean avant-garde spirit would leave a lasting impression; particularly encouraging immanent experiences of listening, and using a wider range of sounds in musical composition. The studio-based techniques of Amacher, Palestine, and Radigue detailed the possibility of layering similar voices in music created by electronic means to render engaging timbres. Riley's repetition and superimposition of tonal sounds in live performance outlined how a composer-performer could play this music 'in a real-time context, working with a group of musicians to arrive at ideas rather than sitting alone in a room at one's desk with pencil, eraser and manuscript paper'.¹²⁰ This post-Cagean, minimalist musical aesthetic was key to Chatham's foundational identity hereafter, and his subsequent work with composers and ensembles playing this music augmented what was learned during the 1960s, and informed his own live solo and ensemble work.

Chatham's identification with downtown music and early minimalism – distinct from the mainstream of culture and uptown composition – stemmed from this period. Minimalism, in particular, had parallels and overlaps with the psychedelic underground popular culture, or counterculture, at the Electric Circus during the late 1960s, a continuation of the cultural connection established between Mills College and psychedelic rock in San Francisco. Here, immanent experiences of music were evoked by autonomic nervous system arousal, and attendant consciousness expansion – via immersion in amplified tonal sounds, often with a steady pulse and an accompanying multimedia presentation – prefigured key aspects of Chatham's own musical performances from the mid-1970s onwards.

¹²⁰ Chatham, in Rob Young, 'Rhys Chatham', 1999, <http://www.rhyschatham.net/nintiesRCwebsite/wire.html>. Accessed 2 February 2013.

In the context of early minimalism, the development of non-dialectical, non-representational, and repetitious music, involving dense textures and timbres using layering of massed, similar instrumental voices, encouraged a listener's perceptualization impulse to directly engage their subjectivity. This method has analogies with Roland Barthes' 'The Death of The Author' concept, where a participant's subjective responses to a work are privileged, and provide a multiplicity of diverse, specific interpretations, instead of a unitary underlying meaning.¹²¹ Claire Bishop's appraisal emphasises the import of this idea for much contemporary art during this period and the subsequent decade, 'particularly works that emphasize the viewer's role in their completion' as: 'the idea that a work's meaning is not dependent on authorial intention but on the individual point of active reception'.¹²² This coincides with Chatham's conception of the 'listener's story', derived from post-Cagean art of this period; this focus upon altering the modality of consciousness, notably through listening and performing, reflects a culture of participation and subjectivity.

Early minimalism was of particular importance for Chatham at this time. Indeed, he notes how it succeeded in 'deconstructing music to its basic signifiers: a beat, a chord, a sound'.¹²³ However, at this point, his own composition did not yet have a noted physicality, it was quite cerebral or meditative in a Cagean manner; only after he worked with the minimalist composers and their ensembles (and later when he investigated rock) did this aspect become notable. In the chapter to follow, I establish how the composer continued to explore these minimalist methods of distilling music to its essential components.

¹²¹ Roland Barthes, 'Death of the Author', 1968 in Claire Bishop (editor). *Participation*. (Massachusetts: The MIT Press, 2006), 41-45.

¹²² Claire Bishop, *Participation* (Massachusetts: The MIT Press, 2006), 41.

¹²³ Chatham, 'Composer's Notebook 1990: Toward a Musical Agenda for the Nineties', 1994.

Chapter Three: Enlightening Experiences of Downtown Music (1970-1974)

This chapter focuses on Chatham's musical development in the context of New York's downtown music scene from 1970 to 1974, to outline the aesthetic and practical influences that he assimilated. I discuss the significance of the music programme he curated and founded at The Kitchen performance space in 1971, and the composer's connection with the artists' colony in SoHo.¹ I examine how he absorbed the influences of Tony Conrad, Pandit Pran Nath, Charlemagne Palestine, and La Monte Young, whom he variously studied and worked with. I detail the development of his extreme minimalist music, *Dr. Drone In Concert* (1971) and *Two Gongs* (1971) that prefigured characteristic aspects of later works for guitar. His engagement with downtown, avant-garde art would intensify during this period, and particularly, music with noted meditative and ritualistic aspects.²

3.1 The Kitchen and SoHo

After Chatham completed his studies at the NYU studios, he founded and curated a Monday night concert series at The Kitchen, beginning in the autumn of 1971. The Kitchen was an influential performance space in the downtown scene run by the video artists Steina and Woody Vasulka (*Figure 3.1*). He had two stints as curator: firstly, when it was located at the Mercer Arts Center in Greenwich Village from 1971 to 1973, and when it relocated to Broome Street, SoHo during 1977-1978 (see Chapter Four for details of the latter).³

¹ 'SoHo' was the abbreviation for the 'South of Houston' neighbourhood of Manhattan.

² This was a time of frenetic musical activity for Chatham, and while I have attempted to present the information in chronological order, this was not always possible due to gaps in knowledge, where either sufficient documentation is lacking or the composer cannot recall exact dates.

³ Its location at the Mercer Arts Center was formerly the kitchen of the Broadway Central Hotel, hence, the venue's name.



Figure 3.1: At The Kitchen in 1972 (left to right): Dimitri Deyatkin (video curator), Woody Vasulka, Chatham, and Steina Vasulka (uncredited, courtesy of The Kitchen).

His work as a curator (and later, as a composer) would influence the cultural milieu of New York during the 1970s. Tim Lawrence establishes that Chatham had a ‘heavyweight, institutional presence at the Kitchen’.⁴ He provides details of the curatorship of the music series:

A program that was about 50 percent electronic, [where] Chatham started off booking friends from the Composer’s Workshop [NYU Studios], including Maryanne Amacher, after which he turned to downtown composers such as Jon Gibson, Tom Johnson, Frederic Rzewski, and La Monte Young. [...] Infectiously enthusiastic and intellectually engaged, Chatham established the music program as the heartbeat of the buzzing downtown experimental scene.⁵

Additionally, Kyle Gann identifies ‘the crucial role Rhys Chatham played in the creation of the downtown music scene’.⁶ Specifically, he acknowledges that this curatorship was significant as he was ‘in charge of the music programming at New York’s most groundbreaking space for new music’.⁷

⁴ Lawrence, *Hold on to Your Dreams: Arthur Russell and the Downtown Music Scene, 1973-1992*, 2009, xix.

⁵ *Ibid*, 59-60.

⁶ Gann, ‘Melding Rock and High Art With the Help of 100 Guitars’, 2003, <http://www.nytimes.com/2003/06/22/arts/music-melding-rock-and-high-art-with-the-help-of-100-guitars.html?pagewanted=all&src=pm>. Accessed 26 November 2009.

⁷ Gann, *American Music in the Twentieth Century*, 1997, 298.

Chatham's role allowed him to develop connections with artists working in dance, film, music, and visual art as The Kitchen was a point of intersection for these disciplines. He indicates that, 'this enabled me to hear a lot of music and situated me ideally as an observer'.⁸ As musical director, Chatham premiered his *Dr. Drone In Concert and Two Gongs* at the venue as well (discussed in section 3.5 of this chapter). Thus, his job as concert producer at The Kitchen allowed him to make a living while encountering a variety of downtown art, and it proved helpful and influential on the development of his own music.⁹

This experience of living and working in SoHo – an area with a large community of artists accommodated by cheap rental rates for spacious apartments and loft spaces – during the 1970s was certainly formative for Chatham. Marvin J. Taylor concludes that this was a unique period in twentieth-century cultural history, where 'artists were living and working in an urban geographical space that was not more than twenty-by-twenty square blocks. Rarely has there been such a condensed and diverse group of artists in one place at one time, all sharing the same assumptions about how to make new art'.¹⁰ Ingram Marshall highlights these artistic practices in context,

Poets, theater people, artists and composers all knew each other, and genre lines were blurred. [...] It was a time and place where private and public space could become the same, where the work of art became just a part of everyday life, or everyday life became transformed at times into art itself. The avuncular John Cage seemed to reign over the whole scene, if not stylistically, at least spiritually.¹¹

From the early 1970s onwards, Chatham was involved with blurring lines between genres, using cross-disciplinary practices, moving into new performance spaces, and extending Cagean concerns into new areas.

Indeed, The Kitchen's opening manifesto professed an intent that the 'Electronic Image and Sound Compositions' presented there:

Perform an experiment on you, to challenge your brain and its perception. [...] [the compositions] resemble something you remember from dreams of pieces of

⁸ Chatham, in Young, 'Rhys Chatham', 1999,

<http://www.rhyschatham.net/nintiesRCwebsite/wire.html>. Accessed 2 February 2013.

⁹ Besides this position as a curator, he supplemented his income with occasional part-time jobs, including work as a bartender, and a plumber in SoHo loft renovations.

¹⁰ Marvin J. Taylor, 'Playing the Field: The Downtown Scene and Cultural Production, an introduction' in Taylor (editor), *The Downtown Book: The New York Art Scene 1974-1984*, 2006, 31.

¹¹ Marshall, liner note essay to Palestine, *Schlingen Blängen*, 1999.

organic nature, but they never were real objects. They have all been made artificially from various frequencies, from sounds, from inaudible pitches and their beats. [...] There is time, time to sit down and just surrender. There is no reason to entertain minds anymore, because that has been done and did not help. [...] There is just surrender, the way you surrender to the Atlantic Ocean, the way you listen to the wind, or the way you watch the sunset.¹²

This presentation of allusive, immersive, and perceptually-engaging art, that sought to alter an audience's conscious awareness, was in keeping with this post-Cagean downtown aesthetic.

Broadly speaking, this aesthetic seeks to evoke expansive forces through music. These forces are compared to prepersonal and natural phenomena (sea, sun, and wind) that are more powerful manifestations of life than our sense of separate individuality, yet which are intimately connected with our lives on a personal and collective level. In this way, a person may more readily be confronted with pure immanence ('A LIFE'), as Gilles Deleuze terms the prepersonal that perpetuates and sustains the subjective.¹³ In this sense, the prepersonal functions 'as both that which constitutes the subject and that into which the subject dissolves'.¹⁴ This approach is allied to the philosophical concept of immanence, defined by Deleuze (in the context of his understanding of Spinoza):

[Immanence] claims to penetrate into the deepest things, the 'arcana' [...].¹⁵ It at once gives back to Nature its own specific depth and renders man capable of penetrating into his depth. It makes man commensurate with God and puts him in possession of a new logic: makes him a spiritual automaton.¹⁶

Thus, immanence proposes a self-transcendence – an experience that transcends the self-conscious aspect of personality per se – as a revelation of the source of one's own sentience as intrinsically inseparable from the rest of life and consciousness as a whole ('a spiritual automaton').¹⁷

¹² Steina and Woody Vasulka, 'A Text for The Opening (15 June 1971)' in Morrissey, *The Kitchen Turns Twenty*, 1992, 5.

¹³ Gilles Deleuze, 'Immanence: A Life' (1995) in Deleuze, *Pure Immanence: Essays on a Life* (New York: Zone Books, 2005), 27.

¹⁴ C. Colwell, 'Deleuze and the Prepersonal', *Philosophy Today*, Vol. 41, No. 1, Spring 1997, 18.

¹⁵ Here, 'arcana' is understood as the mysterious, the esoteric, and hidden.

¹⁶ Gilles Deleuze, *Expressionism in Philosophy: Spinoza* (New York: Zone Books, 1992), 322.

¹⁷ As proposed in this thesis, Deleuze's concept of the plane of immanence has parallels with the concept of God or Nature (as a prepersonal force); for more, see Patrice Haynes, *Immanent Transcendence: Reconfiguring Materialism in Continental Philosophy* (London: Bloomsbury Academic, 2012), 83.

Brian Eno indicates how self-transcendence through surrender connects with wider human concerns:

Sex, drugs, art and religion very much overlap with one another and sometimes one becomes another [...] because they are all forms of transcendence through surrender. They are ways of transcending your individuality and sense of yourself as a totally separate creature in the world. All of those things involve some kind of loosening of this boundary that is around this thing you call 'yourself'.¹⁸

As noted previously, the evocation of trance processes through meditative and ritualistic means in music, where constructions of self and other could become indistinct, was a feature of Chatham's development from the late 1960s. What is more, he observes that the SoHo scene of the 1970s was permeated with this 'feeling of ritual', and that some 'people worked with it overtly' (he cites Pauline Oliveros).¹⁹

Christopher McIntyre finds 'meaningful connections [...] both spiritual and [...] aesthetic, between a whole generation of artists across disciplines', concluding that for Chatham, Jon Gibson, Phill Niblock, Pauline Oliveros, Charlemagne Palestine, and other composers on the SoHo downtown scene, 'a clear collective interest emerged in manifesting starkly phenomenological work, i.e., the audience is meant to objectify the experience of the work in a space, with other humans, and in time, which in essence creates a sort of ritualized notion of place and space'.²⁰ In his own music of the period, this expansive aesthetic (encompassing ecstatic and meditative states) would manifest in the use of immersive, timbral sounds held over long durations, deployed to evoke a listener's engagement (see 3.5 of this chapter).

The propensity to elicit phenomenological engagement with music is apparent in the work of Charlemagne Palestine also. Marshall describes his experience of an evocative Palestine performance using a Bösendorfer piano where 'the alchemical magic of dancing harmonics which he managed to coax out of this magnificent instrument through sheer physical will [...] transformed both

¹⁸ Brian Eno, 'The Philosophy of Surrender', 2009, <http://www.polymathperspective.com/?p=9>. Accessed 4 November 2015.

¹⁹ Chatham, in Christopher McIntyre, 'On The Ritualism of the SoHo scene', 2015, <http://soundamerican.org/christopher-mcintyre-on-the-ritualism-of>. Accessed 27 February 2015.

²⁰ McIntyre, 'On The Ritualism of the SoHo scene', 2015.

physical space and imaginary space inside the listeners' heads'.²¹ This observation suggests that an immersive form of overtone-based minimalist music could profoundly engage a listener's attention through the evocation of acoustic and psychoacoustic phenomena. Nonetheless, a listener's perceptual participation in minimalist music is required, as Michael Nyman explains, 'the listener's focusing is not done for him'.²²

Palestine foregrounded, and manipulated the overtones by varying the finger pressure used when 'strumming' the pitches on piano with a relentless eighth-note rhythm. This prefigured Chatham's own development of compositional strategies and performance techniques to amplify and accentuate resonant acoustic phenomena over extended durations, processes that are a central feature of his art: amplification, electronic manipulation, extended techniques, layering, repetition, and volume (discussed hereafter in the thesis). Palestine's elicitation of these phenomena created continuous sound forms – with little dynamic change in the volume – over extended durations in live performance to provide an engaging atmosphere, with an inherent consciousness-altering potential. This music also focused upon immanence, an encounter where sound is not symbolic or logical or abstract, and thought is secondary in importance to a listener's sentient experience of the sonic material.

For his 'Meditative Sound Environments' of the early 1970s, Palestine inserted cardboard wedges in between the organ keys to generate a continuous sound, with adjustments periodically made to the stops to alter the timbral quality of the music. Through duration, repetition, and stasis, this material may call forth the 'meditative' aspect of music: an extended duration sound continuum of timbral complexity, possibly activating the quiescent system in both the brain and the body of a listener, to still the mind's self-conscious activity through a form of trophotropic trance (if the volume of this kind of music is sufficiently affective, there is a potential for ergotropic processes to occur).

Marshall describes how these sustained sounds of long duration might privilege sentience through immersion:

²¹ Marshall, liner note essay for Palestine, *Schlingen Blängen*, 1999.

²² Michael Nyman, *Experimental Music: Cage and Beyond* (Cambridge: Cambridge University Press, 1999), 139.

Once a beautiful sonority, a wellspring of music, is achieved, it is left alone to its own devices, allowed to spread, to grow, to lavish its fecundity on the ears of the listener who begins now to *FEEL* the music, and realizes the act of hearing is basically feeling. We feel sound, not hear it.²⁴

These insights imply that the psychophysiological import of this music originates with the materiality of sound – its overtones and timbre foregrounded as a primary compositional feature through extended duration, repetition, and stasis – so that a listener is encouraged to engage in a sentient way.

Chatham and Palestine would continue to explore these meditative and ritualistic aspects thereafter. This includes a trio configuration with Tony Conrad in 1974 (discussed in this chapter), and *Youuu + Mee = Weeee* (2011), one hundred and sixty-six minutes of extended-time duo performances with Palestine on Bösendorfer piano, Yamaha organ and vocals and Chatham on electric guitar, flutes, loop pedal, and trumpet (*Figure 3.2*).²⁵ These musical concerns with extended duration, overtones, repetitive phrases, and sustained tones would also feature in Chatham's music for electric guitar.



Figure 3.2: Chatham and Palestine performance at Saint John's Church, Hackney, London on 20 March 2014 (Fabio Lugaro).

²⁴ Marshall, liner notes to Palestine, *Schlingen Blängen*, 1999.

²⁵ Rhys Chatham and Charlemagne Palestine, *Youuu + Mee = Weeee*, Sub Rosa, SR367, 2014.

3.2 Sound is God: Pandit Pran Nath

In the early 1970s, Chatham studied vocal technique in the Kirana Gharana style of North Indian classical music with Pandit Pran Nath (1918-1996) in New York.²⁶ Other musicians searching for new expressive means chose to study with Pran Nath also, including Don Cherry, Arnold Dreyblatt, Henry Flynt, Jon Hassell, Catherine Christer Hennix, Charlemagne Palestine, Terry Riley, Yoshi Wada, and La Monte Young. This vocal tuition focused upon listening, modal scales, precise tuning, and sustained tonal centres, informed by the philosophy: 'Nada Brahma. Sound is God'.²⁷ As a discipline of music as a spiritual practice, it facilitated a deep engagement and identification with sound, imbued with strong feeling, and connected with a cosmology affirming the primacy of sound-vibration.

Chatham explains how he began this tuition:

I think it was in 1970. I had read about him in the *Village Voice* and went to a concert at the Paula Cooper Gallery in SoHo. It was Indian classical music in slow motion, I had never heard anything so beautiful in my life. He was offering classes at the time, which is how I came to study with him.²⁸

Thereafter, he became involved with 'setting up the sound equipment' for raga concerts involving Pran Nath, Young, and Marian Zazeela at the Paula Cooper Gallery around 1970-1972 (*Figure 3.3*).²⁹ Alexander O'Keefe notes:

In his concerts, Hindustani vocal music itself, performed beneath op-art light installations in cutting-edge galleries and in SoHo lofts, became a kind of post-minimalist liturgy, an aesthetic experience of shared, visionary transcendence that was, at the same time, deeply lodged in the bodies of the listeners and performer.³⁰

Chatham's later development of a musical practice that sought to evoke ecstatic, embodied states for performer and listener would draw upon this emotive approach to making music.

²⁶ Pandit Pran Nath is a title that translates as 'Lord (or Master) of the Life Breath'.

²⁷ Pran Nath, in Joachim-Ernest Berendt, *The World Is Sound: Nada Brahma: Music and the Landscape of Consciousness* (Vermont: Inner Traditions, 1983), 155.

²⁸ Chatham, in Young, 'Rhys Chatham', 1999.

²⁹ Robert Stearns, 'Bob Stearns Kitchen', The Kitchen Archives, 2001, http://www.eai.org/user_files/supporting_documents/Bob_Stearns_Kitchen.pdf. Accessed 8 April 2015.

³⁰ Alexander O'Keefe, 'Lord of the Drone: Pandit Pran Nath and the American Underground', 2010, <http://www.bidoun.org/magazine/20-bazaar/lord-of-the-drone-pandit-pran-nath-and-the-american-underground-by-alexander-keefe/>. Accessed 12 April 2015.



**Pandit Pran Nath
Singing Classical Indian Ragas**

Accompanied by La Monte Young and Marian Zazeela on Tambouras.

Paula Cooper 100 Prince New York

Figure 3.3: A flyer for a Pandit Pran Nath concert at the Paula Cooper Gallery in the early 1970s (courtesy of Paula Cooper Gallery).

Pran Nath's oral teaching methods provided his pupils with techniques for singing: he conveyed the depth of feeling and mood particular to each raga, revealed the way to move between the notes, and emphasised precise intonation – particularly, the expositions in the slow alap sections of the ragas. Ragas are understood as 'a group of sounds used for the representation of a definite emotional state', a method of making music that 'can be strong enough to bring about physical and psychological transformations'.³¹ Alain Daniélou establishes the conscious-altering potency of Indian modal music:

Music is envisaged not merely as a stimulant for sensations but also as a means of education capable of creating profound and durable impressions in the mind. This is easily explainable: an external perception can produce a

³¹ Alain Daniélou, *Music and The Power of Sound* (Vermont: Inner Traditions, 1995), 88.

permanent impression in our mind [...] only if we concentrate on it for a sufficiently long time.³²

Chatham states, 'studying with Pandit Pran Nath has deeply influenced my voice on trumpet and also my voice as a composer. You can always hear that modal thing going on'.³³ While he did not explicitly connect musical modes with specific emotions and feelings, I suggest that he distilled the essence of his studies with Pran Nath; all of his notated music for electric guitar used sustained tonal centres as a pedal point to explore modal sounds.

Pran Nath's was a concurrently meditative and ritualised musical practice also, and thus it aligned with Chatham's activities in downtown music during this period, and his work with electric guitars thereafter. His emphasis on correct tuning stemmed from a philosophy of atonement, or harmonising the whole through the notes used. Terry Riley indicates that this precise tuning heightens the quality of the composite waveform (see outline of 'pleroma music' in 3.4 of this chapter also):

The effect of music is heightened by being in tune. Resonant vibration that is perfectly in tune has a very powerful effect. If it's out of tune, the analogy would be like looking at an image that is out of focus. That can be interesting too, but when you bring it into focus you suddenly see details that you hadn't seen before. What happens when a note is correctly tuned is that it has a detail and a landscape that is very vibrant.³⁴

He also outlines the connection between just intonation and yogic practices: 'the idea of yoga is union, union with God. And tuning means atonement, or trying to make two things one [...], just intonation has a lot to do with achieving the correct proportional balances of notes in order to create one'.³⁵ This concept of surma ('being in tune') was Pran Nath's main philosophy, a 'recognition, [and] appreciation of the subtle frequencies [...] Being in tune, putting total being and concentration in each note, living through each moment in music as a divine link in the ecstatic experience'.³⁶ Here, I draw attention to David Clarke and Eric

³² Ibid, 60.

³³ Chatham, in Alan Licht, 'Rhys Chatham', 2008, <http://bombmagazine.org/article/3206/rhys-chatham>. Accessed 10 April 2014.

³⁴ Riley, in Holm-Hudson, 'Just Intonation and Indian Aesthetic in Terry Riley's *The Harp of New Albion*' in *ex tempore*, Volume Ten, Number One, Summer 2000, 103.

³⁵ Riley, in William Duckworth, *Talking Music: Conversations with John Cage, Philip Glass, Laurie Anderson, and Five Generations of American Experimental Composers*, New York: Schirmer Books, 1995, 283.

³⁶ Riley, in Patricia and Joseph Mancini, 'On Just Intonation and the Spiritual Source of Music: Terry Riley in *Keyboard Magazine*, July 1986, 65.

Clarke's research that notes the possibility that 'music makes manifest different levels and modes of consciousness'.³⁷ Feasibly, a suitably engaged listener and/or performer could achieve meditative and ecstatic states of consciousness through music intended to stimulate appropriate psychophysiological processes.

The music required meditative concentration and deep commitment from a practitioner in order to foreground its emotional, intellectual, and physical demands. It is notable as a form distinguished by an overt devotional and emotive component. Pran Nath signalled a paradigm shift toward music that cultivated sentience – here, broadly defined as feeling – and a move away from previous avant-garde approaches to making music. O'Keefe outlines the public image of Pran Nath and his import for downtown music:

The naked yogi, the wandering Sufi singer, whose absolute control over pitch and tone constituted a kind of esoteric science, a bridge between the singing of the Vedic gods at the origin of time and the cosmic, vibrational physics and neurochemistry of the future-shocked freaks. [...] Gone was the cool Zen reserve and rational skepticism of Cage and Stockhausen: Truth had been found, God had been located, and the counter-Enlightenment had begun, with Pandit Pran Nath as its spiritual guide and Young as his chief apostle.³⁸

In distinction to Cage's listening approach that sought to encounter sound as it is, Pran Nath's approach encouraged a profoundly emotive engagement and identification with sound through listening and performing (including improvisation).

In this manner, the music might function as a devotional practice, a means of active meditation on the Divine (*Figure 3.4*). Potter notes the import of Pran Nath's teaching tuition:

The influence of Pran Nath has, inevitably, been at least as much spiritual as musical. Indian theory and practice foster close connections between the two, which emerge in Pran Nath's teaching, for instance, in the form of analogies between tuning one's voice and drawing closer to the deity. 'When the voice becomes perfectly in tune with the drone, with the tambura', Young says, 'it's like leaving the body and meeting God'.³⁹

³⁷ Clarke and Clarke, *Music and Consciousness: Philosophical, Psychological, and Cultural Perspectives*, 2011, xxiii.

³⁸ O'Keefe, 'Lord of the Drone: Pandit Pran Nath and the American Underground', 2010.

³⁹ Potter, *Four Musical Minimalists*, 2002, 79-80.

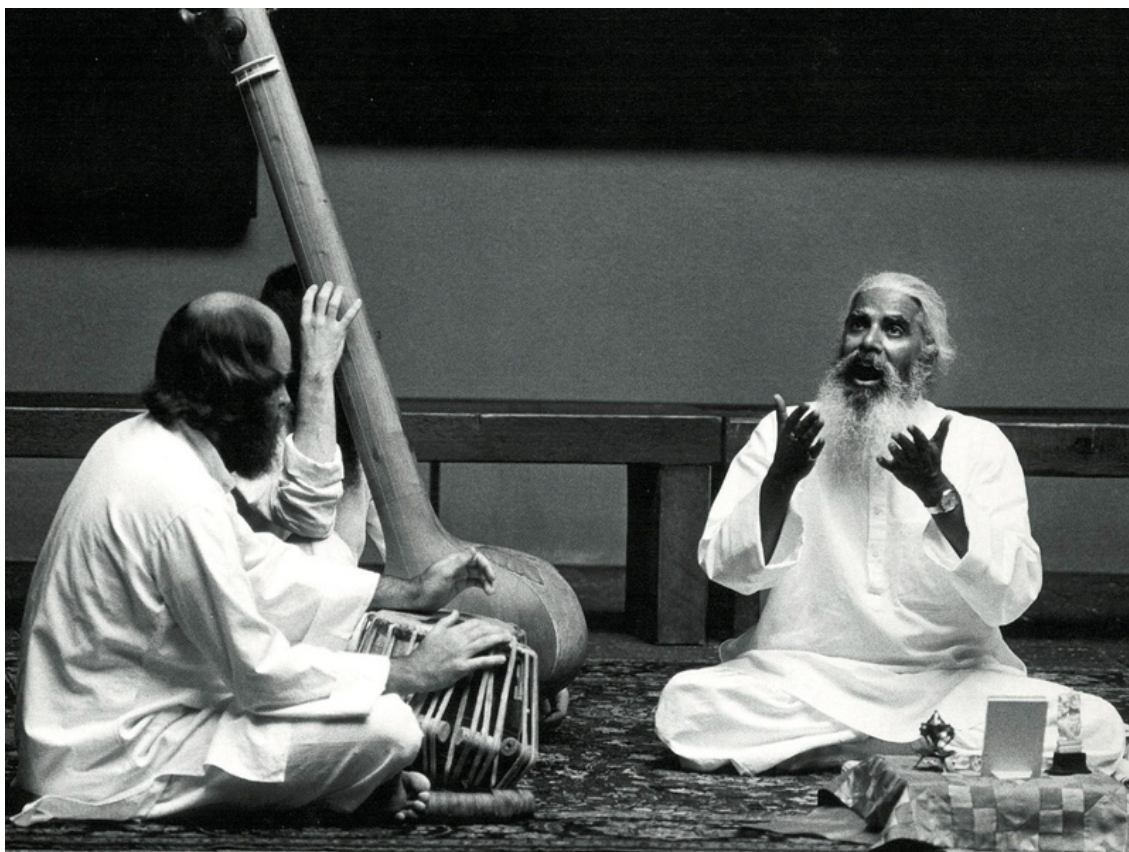


Figure 3.4: Pandit Pran Nath (singing) with Terry Riley (tabla) and La Monte Young (tambura) during the 1970s (uncredited, undated, <http://bit.ly/2m7YhJh>. Accessed 28 December 2016).

Chatham encountered Pran Nath while developing non-notated minimalist music by playing with overtones and manipulating the timbre of continuous tonal centres (discussed in 3.5 of this chapter).⁴⁰ Similarly, an intuitive approach to shaping sound connected Pran Nath's method of performing in the moment with the aforementioned practices from downtown music: work that granted performers space and time to explore the rhythms and timbres of an immersive, extended duration sound form. Potter records that this 'organically evolving form of improvisation' was part of Pran Nath's teaching.⁴¹

Pran Nath's work had parallels with the drone-based minimalism that attracted Chatham previously, a slowly-evolving music preoccupied with subtle listening processes using sustained tones and precise tunings. The use of sustained tonal centres over extended durations in the ragas, taught by Pran Nath,

⁴⁰ Pran Nath would influence the improvised twenty-minute form of Chatham's solo work for trumpet, electric guitar, and flutes.

⁴¹ Potter, *Four Musical Minimalists*, 2002, 80.

facilitated a listener's psychological immersion in these sounds; a facet of listening integrated into the Kirana style. Catherine Christer Hennix notes that this discipline, called Nada Yoga, is 'a practice that expands the awareness of this subtle sound', and that the feeling evoked through the ragas could be 'prolonged by total immersion in sound over extended periods of time'.⁴² David Clarke and Tara Kini's study into North Indian Dhrupad music – a practice comparable to the Kirana tradition – finds that this 'vocal tradition both emanates from and is able to instil deep states of consciousness'.⁴³

Pran Nath's role was more radical than just providing access to music from outside an avant-garde tradition. O'Keefe comments,

This was a confrontation with Eurocentric modernity that went far beyond how a piano was tuned or what drugs to take or where to perform; it was a total rejection of a certain way of thinking about personhood, about the role of art, about knowledge itself. [...] Pran Nath became the guru to a generation of American underground art makers who found it in themselves to stick it to the professors and the gallerists and declare themselves important, to experiment outside the bounds, to estrange themselves into other worlds where old distinctions didn't matter.⁴⁴

This estrangement from established musical convention – including academia and the musical mainstream of modernism – would manifest in Chatham's music, from the mid-1970s onwards. In fact, the composer suggests the key piece of advice that Pran Nath's offered to him was "don't imitate me, follow your own voice, follow your heart, use what you learn in your study with me".⁴⁵ Chatham's search for new means to experiment outside established classical and downtown tradition led to his own idiosyncratic approach to making music, evoking the emotive, the meditative, and the ecstatic.

The pursuit of music as a spiritual discipline would resonate with Chatham on a number of levels: as a means of profoundly altering consciousness, as a way to express a deep devotion to music, and as a desire to experience blissful sentient states through sound, and share these experiences with others. Indeed, he would extend the practices learned in these studies with Pran Nath

⁴² Christer Hennix in Anon., 'Catherine Christer Hennix on ritual and OMSAHATRANAMAM', 2015, <http://soundamerican.org/catherine-christer-hennix-on-ritual-and->. Accessed 5 April 2015.

⁴³ David Clarke and Tara Kini, 'North Indian Classical Music and its links with Consciousness', *Music and Consciousness: Philosophical, Psychological, and Cultural Perspectives*, 137-156.

⁴⁴ O'Keefe, 'Lord of the Drone: Pandit Pran Nath and the American Underground', 2010.

⁴⁵ Chatham, in interview with the present author, 2013.

(immersion, improvisation, modal sounds, precise tuning, and sustained tones) in his music thereafter to embrace the emotive, psychological, and spiritual facets of music.

3.3 Alive on the Infinite Plain with Tony Conrad

Tony Conrad (1940-2016) was an avant-garde artist, composer, filmmaker, and musician whom Chatham first performed with in the early 1970s (*Figure 3.5*).⁴⁶ He was a significant figure in Chatham's development from the time they met in 1971, particularly as they performed drone-based minimalist music of long duration using the harmonic series, with a focus on being in the present moment through performing and listening. Chatham states that Conrad was 'a role model for what an artist, musician and composer should be'.⁴⁷ Conrad recalls working together and suggests that 'it was clear that this encounter had an impact on his thinking':

I played a concert at The Kitchen, for which I devised *Ten Years Alive on the Infinite Plain*. Rhys Chatham was the musical director there - he was also a flautist with a passion for Indian music. I played the violin part, but I needed another stringed instrument and a bass pulse, so Rhys and Laurie [Spiegel] played with me.⁴⁸

⁴⁶ See discussion of The Theatre of Eternal Music in this chapter as well.

⁴⁷ Chatham, 'Facebook post', <http://bit.ly/24uM0OX>, 2016. Accessed 10 April 2016.

⁴⁸ Conrad, in Brian Duguid, 'Tony Conrad Interview', 1996, <http://media.hyperreal.org/zines/est/intervs/conrad.html>. Accessed 3 March 2015.

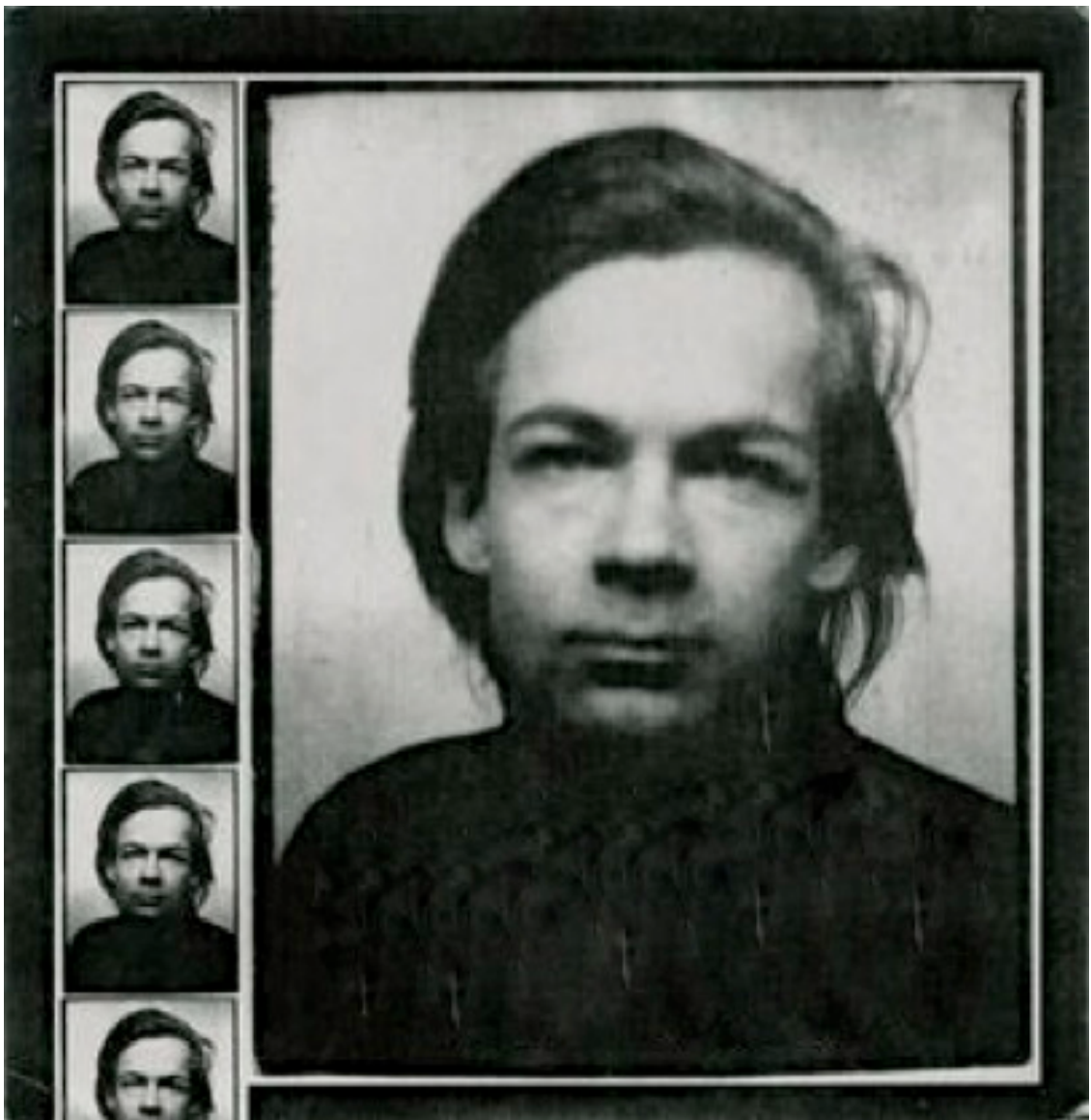


Figure 3.5: Tony Conrad photographed in the early 1970s (Tony Conrad, 1972).

When they premiered *Ten Years Alive on the Infinite Plain* (1972) at The Kitchen on 11 March 1972, Conrad's violin sounded just intonation intervals and sustained tones, while Chatham played an instrument made by Conrad called a 'Long Stringed Drone' (LSD), slowly bowing its three strings to explore the harmonic series (*Figure 3.6*). Along with these sustained tones exploring the harmonic series on multiple stringed instruments, Spiegel's steady bass pulse also prefigured another prominent aspect of Chatham's later work for electric guitar. Subsequently, Conrad and the experimental rock group from Germany, Faust, extended the sound of this ensemble playing on *Ten Years Alive on the Infinite Plain* for their *Outside the Dream Syndicate* (1973) recording, using a

metronomic pulse on a drum kit in addition to the bass pulse and sustained harmonic series tones.⁴⁹

Through *Ten Years Alive on the Infinite Plain*, Conrad introduced the younger composer to the harmonic series ('Pythagorean tuning'). Chatham states, 'I discovered his use of just intonation in his violin playing. He had given me a home-made instrument for me to play, which was basically a Pythagorean monochord and explained what just intonation was'.⁵⁰ Chatham describes the 'Pythagorean tuning' used for the performance, 'in which all intervals found in the harmonic series are based on the ratio 3:2. This ratio, also known as the "pure" perfect fifth, is chosen because it is one of the most consonant and easiest to tune by ear and because of importance attributed to the integer 3'.⁵¹ As I will outline, this use of just tunings would become significant in Chatham's subsequent work.

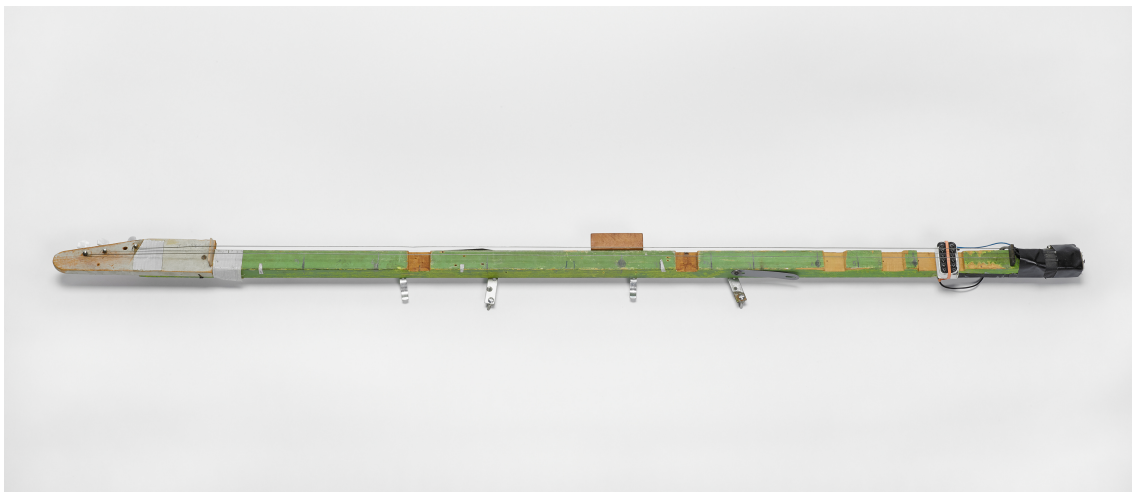


Figure 3.6: Tony Conrad, *Long String Drone* (uncredited, 2013, courtesy of Walker Art Center).

The text for this work depicts a dream, or vision, where the sound current flows 'all across the infinite plain', a continuous noumenon that underlies the phenomenal world, suitable for a work evocative of immanence through music.⁵² The music of *Ten Years Alive on the Infinite Plain* developed from Conrad's visuals (*Figure 3.7*), yet both aspects were calibrated to engage and enliven an audience. Conrad recollects, 'I felt that I should get a group together,

⁴⁹ Tony Conrad with Faust, *Outside the Dream Syndicate*, Caroline, C 1501, 1973.

⁵⁰ Chatham, in Anon., 'Influences: Rhys Chatham', 2016.

⁵¹ Ibid.

⁵² Tony Conrad, '*Ten Years Alive on the Infinite Plain* at the Kitchen', programme notes, 11 March 1972.

and we'd do live music, and it would be very meditational and it would be very terrific'.⁵³

This immersive, gradually unfolding music and visual component predated Chatham's use of minimalist visuals to augment live performances of his own non-notated music (for example, Robert Longo's *Pictures For Music* (1979) during *Guitar Trio* performances). Again, the term 'meditational' is used to describe the intended impact of this early minimalist music. Liz Glass adds, 'both the sonic and the optic elements comprising *Ten Years Alive on the Infinite Plain* reflect Conrad's interest in linearity; slowly-changing perceptions, altered through extended durations; and the use of minimal effects to create a total, immersive, and transformative experience'.⁵⁴

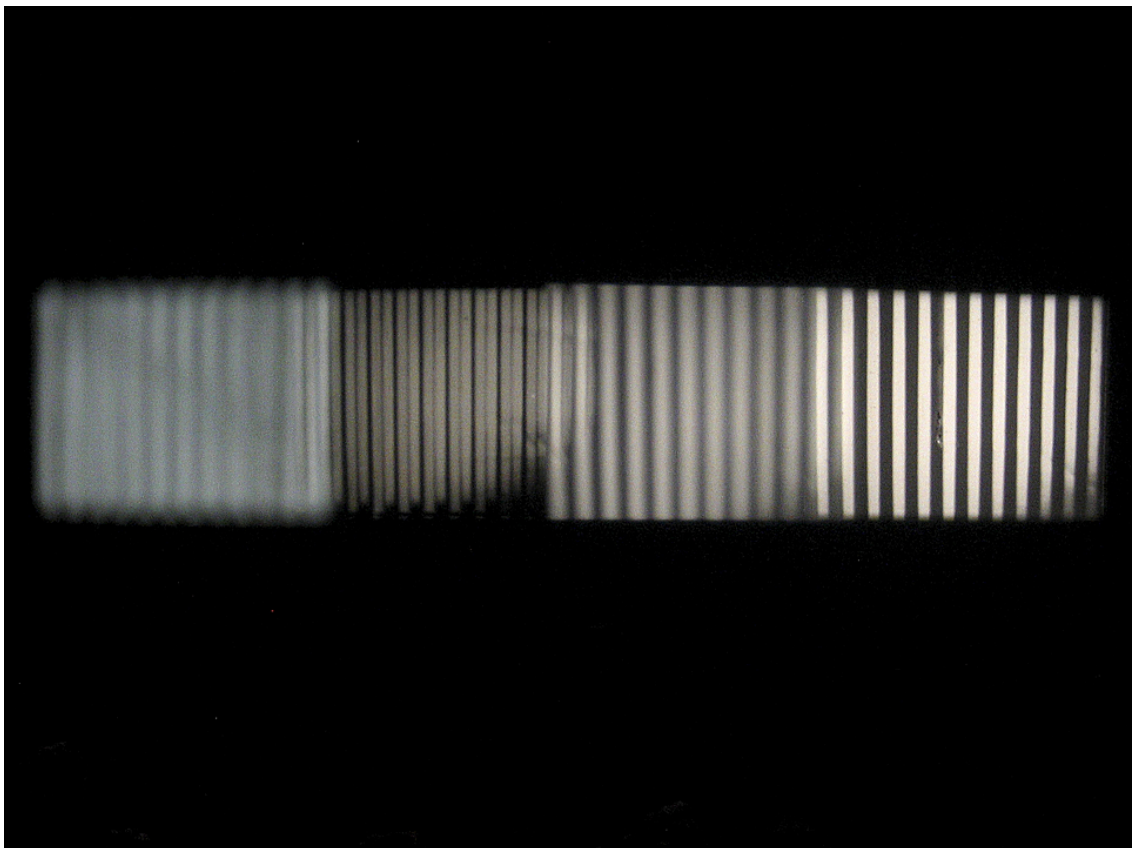


Figure 3.7: Still from the visual component of *Ten Years Alive on the Infinite Plain* (uncredited, 2005, courtesy of The Kitchen).

⁵³ Conrad, in Anon., 'Tony Conrad: The Other Side of Life', 2005, <https://othersideoflife.wordpress.com/tag/tony-conrad/>. Accessed 21 July 2015.

⁵⁴ Liz Glass, 'The Moment of Enlightenment Is a Sound: Tony Conrad and the *Long String Drone*', Minneapolis: Walker Art Center, 2015, <http://www.walkerart.org/collections/publications/art-expanded/moment-enlightenment-sound-tony-conrad-long-string-drone/>, Accessed 15 June 2015.

Bowing and fretting produce subtle variations in repetitive and sustained harmonic series sounds in this work. Conrad describes how skilful manipulation of minimal sound (and visuals) can encourage a mode of reception that directs an 'audience's attention inward to their own bodies, invoking what hypnotists call ideosensory awareness, that is, reflexive attention to one's own inner sensations'.⁵⁵ Hypnotherapist Mary Lee LaBay notes that this awareness 'allows the subconscious mind to bypass the critical factor or opinionated mind to deliver its message'.⁵⁷ Thus, by repetition and variation of limited patterns and material, minimalism might hold a trance-inducing and consciousness-transforming potency for a listener.

This method of making music invites a listener to engage with their subjectivity from a more diffuse 'meditative' or integrative conscious state, where subconscious processing of perceptual information is increased, while the dominant role of self-consciousness is suspended and reduced. Thus, music using certain techniques, consciously or unconsciously, may encourage subconscious processing to privilege a reflexive perceptual focus for an individual through music. In this way, an experience of this kind of minimalist music can loosen the self-imposed confines of a person's conscious perceptions.

Conrad explains this impetus behind *Ten Years Alive on the Infinite Plain* was 'driven by an effort to reclaim a spiritual territory for New York that came out of America (the West) rather than from the East. It was to acknowledge that there's a space for contemplation, for the subjectivity of long durations and perceptually driven work within a Western framework'.⁵⁸ David Grubbs concludes this framework in Conrad's work is on the side of 'contingency, materialism, and cultural and historical specificity' along with John Cale – a position contrasted with the Eastern-derived aesthetic of 'La Monte Young and his supporters [who] took the side of permanence, "the eternal" and that which

⁵⁵ Tony Conrad, 'Preparing for the Propaganda War in the Time of Global Culture: Trance, Form, and Persuasion in the Renovation of Western Music', undated, <http://tonyconrad.net/bard.htm>. Accessed 28 March 2014.

⁵⁷ Mary Lee LaBay, *Hypnotherapy: A Client-Centred Approach* (Louisiana: Pelican Publishing, 2003), 154.

⁵⁸ Conrad, in Jay Sanders, 'Tony Conrad', *Bomb Magazine*, Issue 92, Summer 2005, <http://bombsite.com/issues/92/articles/2752>. Accessed 3 March 2014.

transcends culture and history'.⁵⁹ In this chapter I outline how Chatham absorbed elements of both these positions into his musical aesthetic.

Chatham later performed the *Ten Years Alive on the Infinite Plain* material with Conrad and Charlemagne Palestine who 'would play sifter glasses and [...] sing without amplification'.⁶⁰ He recalls:

I was doing concerts of long duration with Tony Conrad and Charlemagne Palestine. We had formed a trio at one point in the early 70s. One concert we did lasted ten hours. Charlemagne was singing in his Balinese style, Tony played violin and I played harmonium and transverse flute. It was heady stuff and it had a profound influence on my later work.⁶¹

The trio gave a lengthy concert of note as The Fundamental D Family Group performing a 'continuous sound environment' at Albright College in New Jersey on 22-23 April 1972.⁶² The music was an extended duration, improvisatory exploration of the harmonic series from a D fundamental, including (but not limited to): A, B, E, G, C, and D. Chatham played the long string drone, organ, and traverse flute; Conrad the violin, horn, and long string drone; and Palestine piped and sang.

This event provides the context for Chatham's interests at this point, and the path that his future endeavours would take. The music is concerned with participation and perception, allied to listening and performing within a continuous sound form. Accessing meditative states and creating sentience through music is foregrounded, and participation is equated with embodied and sentient listening through immersion in resonant sound over long periods of time:

We invite you to listen and meditate in the mode of D. To hear one note is to enter the deepest realm of knowledge of the sound current. The ear, the understanding, and the core of the spirit resonate to the mode of a single tone and its harmonic family. You read, and hear, and feel the empathy of human spirit. The body will channel the knowledge of the single note stronger and stronger, the more you hear. We will play and sing, and allow the inner strength of the tone to propagate, through our surrounding space and time [...]. We can

⁵⁹ David Grubbs, 'Always at the End', 2009, <http://www.frieze.com/article/always-end>. Accessed 16 April 2016.

⁶⁰ Chatham, in interview with the present author, 2013.

⁶¹ Chatham, in Young, 'Rhys Chatham', *The Wire*, 1999.

⁶² A thirty-two minute recording was taken from the ten-hour performance and released as 'D' on Charlemagne Palestine, Terry Jennings, Tony Conrad, Robert Feldman and Rhys Chatham, *Sharing A Golden Sonority (Golden 4)*, Alga Marghen, plana-P 28NMN.068, 2008.

lead, and find the tone, and hold it here during some few moments while we experience being alive together.⁶³

The work encourages this shared, expansive awareness of being in the moment, within the framework of a ritualised experience of space and time created by the sound.

Here, listening is equated with intuitive knowing, and sentience is privileged above rationality; this sensory knowledge is presented as a revelatory opportunity to conceive what is beyond representation, through immanent experience. This performance is described as a participatory group activity: the audience is encouraged to join in 'meditative participation' through listening and singing along; nonetheless, the performers lead the way, and playing and singing is 'the way to the greatest communication with the sound current'.⁶⁴ Thus, the audience and performers are encouraged to engage with this immersive continuous sound in an emotive, communal manner.

A similar practice for listening to minimal music of extended duration is outlined by Laurie Spiegel, emphasising feeling and a focused conscious awareness: 'pay close attention to what you feel as you experience music, honestly and with an open mind, and to what's going on in the music you're feeling. Disregard how the music is produced or constructed'.⁶⁵ Depending on each individual and the audience's participation with this musical happening, the performance can serve as a means of constructing consciousness, and also, reflecting it (see reading of Chatham's music regarding participatory engagement of audience and performers in Part Two and Three of this thesis).

Conrad's work of the period prefigured elements of Chatham's music with electronics and guitar (see discussion of *Dr. Drone In Concert* later in this chapter). He showed Chatham the way to open up an immanent experiential space through minimal musical techniques, shaping the sound in real time over extended durations. It provided Chatham with another model of a composer-

⁶³ Anon., 'The Fundamental D Flat Group performance' program notes, 22-23 April 1972 (included in liner notes to Charlemagne Palestine, Terry Jennings, Tony Conrad, Robert Feldman and Rhys Chatham, *Sharing A Golden Sonority (Golden 4)*, Alga Marghen, plana-P 28NMN.068, 2008).

⁶⁴ Ibid.

⁶⁵ Laurie Spiegel, postscript to 'Music as Mirror of Mind', 2007, http://reitary.org/ls/writings/music_as_mirror_of_mind.html. Accessed 2 November 2015.

performer using live instrumentation in a minimalist ensemble to explore subjectivity through listening to, and performing music, a perceptual engagement induced by the variation and repetition of resonant sustained harmonic series music.

3.4 Tuning into Higher States: La Monte Young

Chatham's tuition and work with La Monte Young (b. 1935) taught him how to tune in just intonation, and how to deploy these sounds in loudly amplified ensemble performances using verbal scores, powerful experiences of extended duration ('Eternal Music') that could reconfigure a listener's mode of consciousness.⁶⁶ Arnold Whittall observes that Young's compositions had the 'potential to promote a constructive cross-over between serious and commercial musics', a potential that Chatham would work with in his compositions subsequently.⁶⁷ In this section I outline the import of his association with Young.

Chatham began, firstly, by tuning Young's piano in exchange for lessons in 1971, and secondly, from 1972, singing in The Theatre Of Eternal Music with the composer:

In 1971, I wanted to produce a concert of La Monte at the Kitchen, so I went over to his house to discuss this with him and he played me an early version of his piece, *The Well-Tuned Piano*. I had worked my way through my student years by tuning pianos and harpsichords. I loved La Monte's piece but made a comment that, as a professional piano tuner, I thought his piano was a bit out of tune and that maybe I should tune it for him! La Monte thought this was very funny because he knew that I was trying to scam him for a way to study with him without paying. He was very generous and let me tune his piano in exchange for lessons.⁶⁸

The Well-Tuned Piano (1964-73-81-present) is an extended-duration work developed for a piano tuned in just intonation, notable for its prominent interacting resonant harmonic series frequencies (*Figure 3.8*). Young does not consider the work finished but rather as an evolving composition and improvisation without a definitive form.

⁶⁶ He initially became acquainted with Young's music through a performance of *Drift Studies* in 1970 at New York University on 25 October 1970.

⁶⁷ Arnold Whittall, *Musical Composition in the Twentieth Century* (Oxford: Oxford University Press, 1999), 327.

⁶⁸ Chatham, in Young, 'Rhys Chatham', *The Wire*, 1999.



Figure 3.8: Young plays *The Well-Tuned Piano* in New York, 1978 (Marian Zazeela).

While Chatham was proficient at listening to, and tuning harmonics, as a result of his studies and occupation as a tuner, he learned to tune in just intonation using the harmonic series of natural overtones through this tutelage with Young.⁷⁰ For Young, the harmonic series and just intonation were directly connected with an underlying unitary cosmological structure:

The harmonic series is a clearly audible model for understanding the structure of just intonation. Just intonation is that system of tuning based on the natural principles of overtones and resonances as our ears hear them and our voices produce them, that is, as they are found in nature.⁷¹

As previously noted, Young's music was informed by Eastern-derived metaphysics, and attendant notions of eternity, permanence, and transcendence of cultural and historical specificity.⁷² Jeremy Grimshaw notes that is through 'just intonation's acoustic positivism, and the concomitant psychoacoustical path to transcendence that Young saw as the promise of

⁷⁰ See Rhys Chatham, 'Old Tuning Systems for New Composers', *EAR Magazine*, Volume 1, Number 4, September 1975, pp. 6-7. Included in Appendices of this thesis to detail how this system used acoustic beats to tune these precise intervals.

⁷¹ La Monte Young, *Trio for Strings* (1958) Just Intonation Version (1984-2001-2005) Avant-Premiere, programme notes, 23 July 2005, p. 2.

⁷² Grubbs, 'Always at the End', 2009.

rational tuning, [which] merged with the mystical and musical lineage brought by [Pran] Nath from India'.⁷³

Charles Curtis, who studied and performed with Young, expounds how immersion in these resonant tunings can be experienced as a performer and listener:

When tuning two pitches in just intonation, the sensation that the performers receive is of singularity. The individually played frequencies surrender their identities to a complex whole that contains and infinite array of resultant frequencies. Human perception being infinite, we perceive only a tiny subset of what is in fact sounding; yet even this tiny subset seems immeasurably rich and mysterious. The performers gladly surrender their identities too, assuming the attitude of the observer or witness to an overwhelming experience of nature. The harmonic series is nature, tuning is being in nature. It is an experience of nature, however, that is instigated by human action, a kind of reaction of natural processes set in motion by human agency.⁷⁴

Chatham would also contend that 'overtones are nature', espousing a Pythagorean view of an orderly cosmos.⁷⁵ Joscelyn Godwin notes 'the two great insights that emerged from the Pythagorean school are, first, that the cosmos is founded on number, and second, that music has an effect on the body and soul'.⁷⁶ According to this perspective, the harmonic series, and just tunings based on mathematical ratios had associations with cosmic revelation, where a person, their environment, and sound-vibration are perceived as inextricably interconnected via a resonant holism. Chatham would later use these 'pure' Pythagorean tunings for electric guitars, including a recording titled *Pythagorean Dream* (2016).⁷⁷

Although he later credited the invention of this just intonation system to 'Ben Franklin', Chatham notes that it is as easy to learn as releasing 'butterflies from a jar',⁷⁸ a reference to Young's *Composition 1960 #5*.⁷⁹ He describes the practical importance of this tuition, learning to tune intervals in ratios:

⁷³ Jeremy Neal Grimshaw, *Draw a Straight Line and Follow It: The Music and Mysticism of La Monte Young* (Oxford: Oxford University Press, 2011), 111.

⁷⁴ Charles Curtis, in Young, programme notes for *Trio for Strings* (1958) Just Intonation Version (1984-2001-2005) Avant-Premiere, 2005, 8.

⁷⁵ Chatham, in Anon., 'Choirs of Angels', <http://dialoguetalk.org/rhys-chatham-interview/choirs-of-angels/>, 2014. Accessed 14 August 2015.

⁷⁶ Godwin, 'Music and the Hermetic Tradition' (1998) *Gnosis and Hermeticism: from Antiquity to Modern Times*, edited by van den Broek & Hanegraaff, 1998, 183.

⁷⁷ Rhys Chatham, *Pythagorean Dream*, Foom Records, FM007, CD, 2016.

⁷⁸ Chatham, 'Old Tuning Systems for Young Composers', 1975, 7.

La Monte taught me how to tune in just intonation as well as his special way of tuning very small intervals, like 63/64 or the comma of Pythagoras, 83/84. Also higher intervals like 126/127. We would refer to these intervals as "keys" and I would tune a series of pitches in the "key" of 83 and another set of pitches in the "key" of 84. The difference in sound was almost felt rather than heard. All this influenced my work with electric guitar of course.⁸⁰

Subsequently, Chatham deployed just tunings and overtones as the basis for his music for electric guitar; indeed, *Drastic Classicism* featured a tuning inspired by Young's music (see Chapter Six).

Charles Amirkhanian observes that Young's music 'combines effectively the spirituality of the East with Western intellectual and technical interests'.⁸¹ Nicole V. Gagné explicitly links Young's avant-garde compositions using amplification, just intonation, and layering of similar voices, with an increase in acoustic and psychoacoustic phenomena:

The pitches reinforce and strengthen the natural resonance of their higher partials and generate prominent overtone activity unavailable in equal tempered music. The pleroma music of La Monte Young [...] involved working with amplified densities of pitches tuned to the ratios of higher just-intonation octaves.⁸³

Furthermore, Gagné directly links this practice of creating 'pleroma music' to Chatham's subsequent work; she also identifies Tony Conrad, Glenn Branca, Lou Harrison, Ben Johnston, Harry Partch, Pauline Oliveros, Terry Riley, and James Tenney as practitioners of pleroma music. She establishes that 'such music is intended not only to describe the movement toward transcendent revelation but to energize and actualize that experience as well'.⁸⁵ This will be explored in relation to Chatham's work thereafter.

Chatham worked with just intonation as a singer in The Theatre of Eternal Music with Young and his wife, the artist Marian Zazeela (*Figure 3.9*). Through this group, he worked with other avant-garde composers and musicians such as Jon

⁷⁹ Young's score instructs: 'Turn a butterfly (or any number of butterflies) loose in the performance area. When the composition is over, be sure to allow the butterfly to fly away outside. The composition may be any length but if an unlimited amount of time is available, the doors and windows may be opened before the butterfly is turned loose and the composition may be considered finished when the butterfly flies away.'

⁸⁰ Chatham, in Young, 'Rhys Chatham', 1999.

⁸¹ Charles Amirkhanian, 'La Monte Young's Eternal Music' Radio Broadcast with Charles Amirkhanian, RadiOM, 87 minutes, 1972, <http://radiom.org/detail.php?et=music&omid=AM.1972.03.16.A>. Accessed 2 March 2015.

⁸³ Nicole V. Gagné, *Historical Dictionary of Modern and Contemporary Classical Music* (Maryland: Rowman & Littlefield, 2011), 147.

⁸⁵ *Ibid*, 206.

Hassell (trumpet), Garrett List (trombone) and Terry Riley (voice) also. Young explored Pran Nath's concept of atonement, being perfectly in tune through singing, to catalyse expansive states of consciousness through trance processes at the threshold of expression and reason. Young proposes:

Let your focus go directly toward the frequency that you're singing, and through that frequency you tune directly into a higher state of universal consciousness. [...] There are various ways of describing this phenomenon, but it relates to the concept of trance, and it relates to the concept of meditation, it relates to the concept of prayer, it relates to the concept of being in tune. Generally speaking, what I am interested in in music is becoming a receptor for a higher state of information that can flow through me and then become manifest physically as music, which then can be experienced by people who listen to it, whether it is an audience listening to a live concert or someone listening to a recording. And then, they, too, can have that experience of the truths that the physical manifestation presents to them.⁸⁶

Sabine Feisst contends that Young developed this 'approach to meditation through concentration' in the ensemble performances of *The Theatre of Eternal Music* to address concerns with yoga, or union with the Divine.⁸⁷



Figure 3.9: Young and Zazeela sing in *The Theatre of Eternal Music* in the 1970s (uncredited, undated, <http://bit.ly/2m45gGz>. Accessed 28 December 2016).

⁸⁶ La Monte Young, in Ian Nagoski, 'La Monte Young and Marian Zazeela: the halana interview', *Halana*, Issue 1, 1996, 35.

⁸⁷ Young, in Sabine Feisst, 'Losing Control: Indeterminacy and Improvisation in Music Since 1950', 2002.

On a practical level, this work refined Chatham's ear, as he became increasingly aware of beat phenomena also. He acknowledges this, 'La Monte was working with very precise tunings, and we have to tune our voices to these sine waves, usually with a 2:3 relationship [...] a perfect fifth'.⁸⁸ Feisst outlines the nature and role of composition and improvisation within Young's group:

[Young] provided his ensemble The Theatre of Eternal Music not with scores, but oral instructions. Each player has to memorize the selected and allowed tone combinations and improvise their durations and cues. Every realization of this conception provides, through improvisation, a new variation.⁸⁹

In addition to the ensemble playing in a manner that was both intuitive and rigorous, the textural and timbral intricacies were foregrounded to generate an affective experience for audience and performers in a concert. The sound was shaped through interpretation in performance, within the parameters of the harmonic series defined by the composer, a prominent feature in Chatham's subsequent non-notated music for electric guitars.

Young's practice of using loud volume to get 'inside the sound', to explore the 'visceral physicality and materiality of sonic vibration', would prefigure Chatham's later use of loud amplification in his own music.⁹⁰ Listening to highly amplified harmonic series sounds, within which the ensemble and audience are acoustically, psychologically, and physically situated, facilitates intense listening experiences. Bruce Mowson identifies this as 'being within sound' in the aesthetics and practices of The Theatre of Eternal Music.⁹² The use of amplification serves to move a listener through physical immediacy (frisson) and boost the audibility and resonance of acoustic phenomena (upper partials, in particular), which in turn generate psychoacoustic phenomena. From these experiences with Young, Chatham became aware of the possibility of calibrating an embodied and expansive experience through immersion in an amplified, resonant drone-based music (see discussion of Chatham's use of amplification in Chapter Five).

⁸⁸ Chatham, in McIntyre, 'On The Ritualism of the SoHo scene', 2015.

⁸⁹ Feisst, 'Losing Control: Indeterminacy and Improvisation in Music Since 1950', 2002.

⁹⁰ La Monte Young, and Marian Zazeela, *Selected Writings* (Ubu Classics, 2004), 49.

⁹² Radigue's sonic manipulation of a gradually evolving sound continuum through listening and performance is another example of musical immanence in minimalism – and another formative influence on Chatham – cited by Mowson. See Bruce Mowson, 'Being within sound: immanence and listening' in Hope and Marshall (editors) *Sound Scripts Volume 2*, 2009, 32-37.

How might these sustained, amplified tones held over extended durations elicit psychophysiological effects that can profoundly alter the consciousness of an individual? Here, Young gives his perspective:

The tradition of modal music has always been concerned with the repetition of limited groups of specific frequencies called modes throughout a single work and, as a rule, the assignation of a particular mood or psychological state to each of the modes. [...] When these frequencies are continuous, as in my music, we can conceive even more easily how, if part of our circuitry is performing the same operation continuously, this could be considered to be or simulate a psychological state. My own feeling has always been that if people just aren't carried away to heaven I'm failing. They should be moved to strong spiritual feeling.⁹³

I interpret Young's intention to move a listener 'to strong spiritual feeling' as a desire to shift consciousness to a self-transcendent dimension ('heaven'), an ecstatic transport through music (see discussion of repetition in Riley's minimalist music in the previous chapter). Peter Michael Hamel states the potency of minimalist music, derived partially from repeating a limited set of pitch frequencies, in a manner akin to the modal music described by Young:

Through nothing more than the sustaining of a note and the production of its overtones, the distinction between movement and non-movement is dissolved into a kind of synchronicity. Everything proceeds as though the principle of repetition had no other purpose than to hypnotise the listener. At a first hearing, such music sounds "primitive" and monotonous; yet as soon as one gets the feel of it a deep self-experience becomes possible.⁹⁴

Synchronicity is defined here as 'a meaningful coincidence in time, a psychic factor which is independent of space and time', an event that scientific rationality cannot adequately explain.⁹⁵ Similarly, O'Keefe observes Young's Dream House installation had 'explicitly metaphysical intentions' connected with Pran Nath's maxim 'Sound is God', 'the idea was to push the listener inward, inside the earth, inside the body and self, to experience art as a means of flight, as a private experience of aesthetic rapture and embodied, emotional ecstasy'.⁹⁶ This embodied rapture occurs within the world, and suggests

⁹³ Young, in Richard Kostelanetz, 'Conversation with La Monte Young (1968)' in Richard Kostelanetz, *The Theatre of Mixed Means* (London: Pitman, 1970), 63.

⁹⁴ Peter Michael Hamel, *Through Music to the Self* (Colorado: Shambala, 1976), 143.

⁹⁵ Carl Gustav Jung, *Synchronicity: An Acausal Connecting Principle* (London: Routledge, 2006), i.

⁹⁶ O'Keefe, 'Lord of the Drone: Pandit Pran Nath and the American Underground', 2010.

immanence leading to a 'self-transcendence'. Here, I concur with Deleuze who states that 'transcendence is always a product of immanence'.⁹⁷

Chatham would seek to generate psychophysiological states through music, an experiential knowing ('gnosis') of a sublime that cannot be perceived by reason alone, and which transcends the rational. Antoine Faivre defines gnosis 'as a mode of knowledge emphasizing the "experiential," the mythical, the symbolic, rather than forms of expression of a dogmatic and discursive order'.⁹⁸

Although Chatham derived components of his artistic practice from these experiences with Young, he would combine these with other idiomatic elements and recontextualise the resulting music. Potter states that Young's music inspired 'a number of composers [who] have seized his ideas about the potential of drones for exploring the innards of sound through the harmonic series and developed them along individual lines', and 'have taken Young's ideas further than he has done himself into areas beyond the musical avant-garde'.⁹⁹ Chatham would harnesses the acoustic and psychoacoustic resonance of the harmonic series generated by just intonation, or 'pure intervals', the affect of loud amplification, and the layering of pitches to produce new music.

3.5 Chatham's Extreme Minimalist Music

An interest in acoustic and psychoacoustic phenomena, and an ear for harmonics led Chatham to create music that explored the upper portion of the harmonic spectrum in *Dr. Drone In Concert* (1971) and *Two Gongs* (1971). The composer used electronic and acoustic equipment during this era to amplify and vary the overtone structures within the continuous waveforms of the music to activate a listener's perceptualization impulse. This is in keeping with McIntyre's suggestion, that SoHo composers used 'overtones of analog synths and organs (among other things)' to ritualise space and time through music.¹⁰⁰

⁹⁷ Deleuze, 'Immanence: A Life' (1995), 31.

⁹⁸ Antoine Faivre, *Western Esotericism: A Concise History* (translated by Christine Rhone) (New York: State University of New York, 2010), 3.

⁹⁹ Potter, *Four Musical Minimalists*, 2002, 90-91.

¹⁰⁰ McIntyre, 'On The Ritualism of the SoHo scene', 2015.

Kyle Gann observes that during this time, Chatham was 'a take-no-prisoners Minimalist, making long pieces from electronic drones or white noise or banging repetitively on gongs for an hour at a time to bring out the harmonics'.¹⁰¹ In the context of these times, minimalism was diametrically opposed to serialism, the music cherished and nurtured by universities. As composer and musician Ned Sublette reports:

It was the era of revolution against atonal serialism – an insular, dry style which did much to alienate the public from "serious" music and which was all but mandatory for university composers of the day. [...] Young composers, taking their cue from La Monte Young, Terry Riley and others, were using simple tonal materials – sometimes as a drone, sometimes with a palpable pulse – to create a new kind of art music, one that used amplification (sometimes, though not always, at high levels) and borrowed from Asian, Indian, and (often uncredited) African music traditions.¹⁰²

During this period, minimalism became the key component of Chatham's core musical identity. I will examine how this, and his subsequent music for electric guitar bears the hallmarks of a minimalist technique of composition, understood as 'a reduction of materials' and a 'general emphasis on repetitive schemes and stasis'.¹⁰³ Timothy A. Johnson lists five characteristic features of the minimalist style in order to identify this minimalist technique:

1. A continuous formal structure,
2. An even rhythmic texture and bright tone,
3. A simple harmonic palette,
4. A lack of extended melodic lines,
5. Repetitive rhythmic patterns.¹⁰⁴

From 1971, Chatham's music consistently displays characteristics of the minimalist style concurrently, and from 1977, he developed music that expanded this approach. This broad designation connects the work of Chatham and his formative minimalist influences: Maryanne Amacher, Tony Conrad, Charlemagne Palestine, Éliane Radigue, Terry Riley, and La Monte Young.¹⁰⁵

¹⁰¹ Kyle Gann, 'Melding Rock and High Art with the Help of 100 Guitars', 2003, <http://www.nytimes.com/2003/06/22/arts/music-melding-rock-and-high-art-with-the-help-of-100-guitars.html>. Accessed 30 August 2015.

¹⁰² Ned Sublette, 'The Evolution of Peter Gordon's Music: an eyewitness account', 2001, <http://www.stalk.net/piano/pgbio.htm>. Accessed 21 October 2012.

¹⁰³ Glenn Walker, in Timothy A. Johnson, 'Minimalism: Aesthetic, Style, or Technique?' 1994, 750.

¹⁰⁴ Ibid.

¹⁰⁵ Johnson qualifies his definition of minimalist techniques, noting that 'the appearance of any one of these aspects alone would be insufficient to indicate that the minimalist technique is in use, since many pieces that are obviously not influenced by minimalism contain one of these characteristics in isolation', *ibid.*

Michael Nyman's definition of minimalism also identifies these endeavours accurately, as music that 'cuts down the area of sound-activity to an absolute (and absolutist) minimum, but submits the scrupulously selective, mainly tonal, material to mostly repetitive, highly disciplined procedures which are focused with an extremely fine definition'.¹⁰⁶

Along with the improvisation evident in minimalism (and Pran Nath's music), Chatham began to improvise during this period also. His initial experience of instrumental improvisation happened via his involvement with Frederic Rzewski's *Musica Elettronica Viva* (MEV) in New York in the early 1970s.¹⁰⁷ He reports:

The focus [...] was instrumental (as opposed to electronic) improvisation, so Rzewski recruited all the composers hanging around the Kitchen and Phill Niblock's loft at the time and introduced us to improvisation. We had weekly sessions with Frederic on piano, Garrett List was always there, he was on trombone. I was playing flute. Tom Johnson, Gordon Mumma and Charlie Morrow would show up from time to time. We basically played "free".¹⁰⁸

This experience of free improvisation brought jazz musicians using similar improvised approaches to Chatham's awareness: Anthony Braxton, Karl Berger, Sam Rivers, Carla Bley, Steve Lacy, Cecil Taylor. Thereafter, the composer became interested in the free jazz scene, later playing guitar in a group with Keshavan Maslak, Charlie Moffett and Charnette Moffett, and developing an improvised approach in his music of the last decade.¹⁰⁹ I will detail the significance of the composer's combination of improvised elements and minimalist techniques in his subsequent works.

¹⁰⁶ Nyman, *Experimental Music: Cage and Beyond*, 1999, 139.

¹⁰⁷ MEV New York was inspired by Cornelius Cardew and the free improvisation of British group AMM.

¹⁰⁸ Chatham, 'Facebook post', 2013,

<https://www.facebook.com/rhys.chatham/posts/430867800316326>. Accessed 19 March 2013.

¹⁰⁹ For example, the group performed at Soundscape, 500 West 52nd Street, New York on 5 March 1982. Chatham developed an improvised trumpet style from the mid-1990s, and thereafter, music incorporating an improvised approach, deploying a loop pedal (phrase sampler) in conjunction with justly-tuned electric guitar, flutes, trumpet, and occasionally, overtone singing.

3.5.1 *Dr. Drone In Concert* (1971)

At a time when he was an emerging composer-performer of minimalist music, Chatham's *Dr. Drone In Concert* (1971) for audiotape premiered at The Kitchen in New York on 25 May 1972.¹¹⁰ This work 'in the key of 60 cycles' explored the overtones of one sustained sound over seventy minutes, accompanied by a text from Tony Conrad, and visuals by Shridar Bapat.¹¹¹

Dr. Drone In Concert is minimalist music generated by electrical means. Conrad's programme notes identify the origin of the music with the hum of an electrical current, 'we take the 60 cycles power out of the wall and do different things with it for the purposes of our own gratification'.¹¹² The sound subjected to minimal techniques is likely to have originated with a recording that Chatham made of his refrigerator that he then transposed down an octave.¹¹³ To create subtle variations in the overtone structure (morphology), Chatham manipulated the audiotape recording in performance to create a sustained sound akin to the slow moving timbral focus apparent in the electronic drone-minimalism of Amacher, Palestine, and Radigue.¹¹⁴

As with the aforementioned early minimalism, the sustained timbral continuum of sound facilitates an expansive experience of being in 'the present' moment for a listener, by tuning into the most prevalent frequency (for those living in North America): the electrical cycle of 60hz. As with Chatham's previous work with Conrad and Palestine (discussed in the previous section of this chapter), the act of listening to and performing this work is positioned as a means to a communion through sound, in the here and now: 'to tune into 60 cycles. Keep the power away from you by transmitting through the air. Use your ears as transducers [...] Join the most constant universal life event on our continent'.¹¹⁵ This minimalist and post-Cagean music privileges perceptual insights afforded by listening to sustained harmonic series sounds in their immanence.

¹¹⁰ Tony Conrad, '60 Cycles', programme notes, 25 May 1972.

¹¹¹ This description was used on the poster for the premiere of *Dr. Drone In Concert* at the Kitchen.

¹¹² Conrad, '60 Cycles', 1972.

¹¹³ See Chatham, in Guy Girard, 'Electricity', 2010,

<http://www.youtube.com/watch?v=62ObK67jV7s>. Accessed 23 February 2015.

¹¹⁴ Chatham posted a seven-minute excerpt of the debut performance of this work from 1972 via his *YouTube* account, https://www.youtube.com/watch?v=ZCdhKRgiB_I. Accessed 20 April 2014 (note: this video is now private).

¹¹⁵ Conrad, *ibid.*

Tom Johnson reports how the kind of electronic music made by Chatham during this period might provide these engaging listening experiences:¹¹⁶

Most of the time the music consists simply of a single sustained note. Or at least it sounds like a single note at first. But as it drones on, you gradually get further and further into the sound, and begin to distinguish the different overtones. Then you get down to another level where you can perceive that the composer is subtly varying the volume of different overtones. Then your ears become sensitive to the different tonal qualities of each overtone, and you begin to hear beats (the pulsating effect which results when sound waves are not exactly in phase with each other). Gradually it draws you into a strange microscopic world where it is possible to hear acoustical details which are much too small to be perceived in normal musical contexts.¹¹⁷

This observation emphasises the participatory role of the listener's perceptual engagement with the slowly evolving continuum of Chatham's electronic music. Johnson records this aspect as being of particular interest, 'the most fascinating thing about this kind of one-note music is not the little changes which the composer causes in the sound, but the additional ones which somehow seem to happen in one's ear'.¹¹⁸ This kind of music appealed primarily to people interested in downtown music; indeed, a person might not have the inclination or patience to listen in this manner.

Conrad observes how performing and listening to sound in the moment is foregrounded in *Dr. Drone In Concert*,

60 cycles is pumping and surging all around the heart of civilization. I watch him pick up a bit of it; he moulds it and channels it a bit. He is part of us then, as he plays with it as I have done for ten years along and carefully siphons a tiny bit of it up to a handy ear. Perhaps I will be permitted to hope it is my ear; with that ear pointing in the right direction, it will hear far, far past the future, into the current of the living present.¹¹⁹

This statement places Chatham's endeavour in the context of the lineage of Conrad's own work in early minimalism, including *The Theatre of Eternal Music*; furthermore, 'ten years' is suggestive of their work together on *Ten Years Alive on the Infinite Plain*.

The Theatre of Eternal Music had consisted of a core line-up (from 1963) featuring: Conrad (violin) and John Cale (viola), La Monte Young (voice), and

¹¹⁶ This music for a dance called *Narcissus Descending* is not listed in Chatham's catalogue of compositions. It was documented in Tom Johnson, 'Rhys Chatham: One Note Music' (1972) in Johnson, *The Voice Of New Music, New York: 1972-1982*, unpaginated.

¹¹⁷ Johnson, *ibid.*

¹¹⁸ *Ibid.*

¹¹⁹ Conrad, '60 Cycles', 1972.

Marian Zazeela (voice). Conrad describes the immanent technique used to shape their sustained harmonic series sounds ('Dream Music') in live performances:

Our 'Dream Music' was an effort to freeze the sound in action, to listen around inside the innermost architecture of the sound itself. It had something to do with composition, since it became a commentary on the temporal site of the composer, in relation to the sound itself. We were announcing that the composer could sit within the sound, so to speak, and work with it as a plastic continuum extended in time along the same course, and at the same pace, as the listener. That is quite different from improvising on a tune, or using improvisational variation to elaborate sound patterns. The message here was not about indeterminacy, nor about immediacy, but about the control of sounds right there in your environment.¹²¹

Chatham's subsequent non-notated work for electric guitars sought to shape sound in concert; yet it took a different approach by deploying the physicality of rock's sound and performance style, including idiomatic improvisatory elements. Additionally, his work would extend the work of The Theatre of Eternal Music into popular music territory by focusing on harmonic series intervals – including between drones and upper partials – and the resulting acoustic and psychoacoustic phenomena created by them, rather than equal-tempered harmony.

Here, the social dynamic of creating minimalist music in ensembles, and the view of authorship therein takes two distinct forms. Firstly, a tradition of composed music stemming from a western classical tradition where the composer is the author of the work and maintains agency; for example, Young's compositions and his view as sole composer of The Theatre of Eternal Music's work.¹²² Secondly, a form of collective authorship detailed by Tony Conrad in reference to the group's ensemble music-making as 'a collaborative enterprise',¹²³ one that dismantled hierarchical constructs of composer, performer, and listener in a radical fashion, especially the perceived authoritarian role of the composer figure.¹²⁴ Chatham's broader musical output hereafter evidences both views to varying degrees (as I detail in due course). As composer of the non-notated and notated compositions, he is closer to Philip Glass, Steve Reich, and Young, individuals who also trained to be art music

¹²¹ Conrad, in Duguid, 'Interview With Tony Conrad', 1996.

¹²² For details of Young's claims to authorship in The Theatre of Eternal Music and his dispute with the other members, see Potter, *Four Musical Minimalists*, 2000, 73

¹²³ Conrad, in Brian Duguid, 'Tony Conrad Interview', 1996.

¹²⁴ For more, see Branden W. Joseph. *Beyond the Dream Syndicate*, 2008, 40-44.

composers, and who maintained this role in the context of their own ensembles. However, his improvised solo and group music is a collaborative form that accords with Conrad's vision of collective music making.

In the early minimalist music, he distilled the key components of, and *Dr. Drone In Concert*, Chatham recognised the potential for electrified sound to create powerful listening experiences, encompassing acoustics and psychoacoustics. Chatham would pursue this exploration of non-notated minimalism using electronically generated means up until late 1977, when his interest in exploring perceptions and these phenomena using amplified electric guitars in musical ensembles took precedence (discussed in the chapter to follow).¹²⁵

3.5.2 *Two Gongs* (1971)

Two Gongs (1971) for a pair of large, amplified Chinese gongs, explored acoustics, duration, and resonance, and was premiered by the composer and Yoshi Wada at The Kitchen on 28 February 1971. The sound of these instruments appealed to Chatham as it closely resembled his own electronic music, and from this starting point, he began to conceive of a method to structure their sound into an extreme and intense work of extended duration.

The incorporation of trance-inducing elements in *Two Gongs* was overt – the gongs and the meditative manner of performing the music – and covert – the use of minimal techniques to alter consciousness, augmented by the amplification and extended duration of the sound to generate a ritualistic immersion in sound. Gongs originated in Eastern rites, frequently in the context of meditative and ritual practices, and thus are innately connected with alterations of consciousness. La Monte Young's *23 VIII 64 2:50:45-3:11AM, the Volga Delta* (1969) for two bowed gongs had used these instruments to create a ritualistic minimalist music.

A focus upon exploring the texture and timbre of the sustained sounds of the gongs – through techniques devised to vary their morphology – built upon the

¹²⁵ For example, see Tom Johnson, 'Rhys Chatham's Music is Hard to Hear' (1977) in Johnson, *The Voice Of New Music, New York: 1972-1982*, 1989, unpaginated.

ideas explored in Chatham's electronic music, and marked a return to using acoustic instruments to explore such concerns in his compositional practise. He explains his method:

I made a score which consisted of a logically evolving set of dynamic changes and mallet attacks, but whose basic idea was to simply keep the gongs ringing, allowing the evocative story told by their wild harmonics to unfold. I was obliged to score the piece because different sets of overtones would come out depending on how hard we hit the gongs. Hitting them softly elicited one set of overtones, hitting them harder would evoke a completely different set.¹²⁶

The performance directions indicate the intensity, rate, and position of the strikes upon the gong in order to generate the volume, rhythm, and morphology (overtone structure) required for this music. As I will detail, these techniques to vary the overtones produced by the electric guitar would be a central feature of his non-notated work for that amplified instrument.

The music in *Two Gongs* focuses upon the sound produced by the gongs, and how a listener perceives their dense timbres over the course of an hour. By using energetic physical techniques to sustain sounds and generate timbral nuances for this length of time, acoustics, frisson, and psychoacoustics could result from the immersive, voluminous sound wave. Tom Johnson's report from a performance in 1973 noted:

That gongs have many different pitches, most of which don't make much sense in terms of the overtone series; that different tones stand out, depending on how the gong is struck; that when a gong makes a crescendo, a wonderful whoosh of high sound streams into the room; that loud gongs vibrate the floor in a special way and put an odd charge in the air; that listening to gongs, played alone for over an hour, is an extraordinary experience.¹²⁷

These dynamic, rhythmic, and positional approaches provide nuanced variation in the subtly evolving, ever-shifting composite waveform, a major characteristic of the music. Although *Two Gongs* foregrounds the overtones produced by the gongs, it is not a just intonation work; *Still Sound in Motion* (1973) written for two trombones is Chatham's first (no recordings are available at present).¹²⁸ Nonetheless, the choice of instrumentation ensured the harmonics were clearly audible as the most prominent feature of *Two Gongs*.

¹²⁶ Chatham, liner notes for *An Angel Moves Too Fast to See: Selected Works 1971-1989*, 2003, Table of The Elements, SWC-CD-57, 2002, 22-23.

¹²⁷ Johnson, 'Learning from *Two Gongs*: Rhys Chatham' (1973) in Johnson, *The Voice Of New Music, New York: 1972-1982*, 1989, unpaginated.

¹²⁸ Chatham, liner notes for *Factor X*, Moers Music, momu 02008, 1983.

The fascination with extreme minimal musical materials evident in this work began to wear thin after a period of time. For example, Johnson observes that the 'extreme minimalist exercises [...] when someone would play the same gong for an hour, or repeat a few verbal phrases for a long time, or ask us to accept a completely static oscillator as a composition' had begun to decline around 1974, a fact that he lamented as the 'decline of avant-gardism'.¹²⁹ Retrospectively, he would acknowledge that this move away from extreme minimalism was inevitable:

Extreme minimalism just could not continue year after year. The audience lacked the patience to listen to no changes, however novel the presentations might be, and eventually even the composers got bored. No one does such things anymore, and today everyone agrees, once again, that the search for total stasis, for the beauty of absolute zero, was a search for a mirage. But what an exciting mirage, and how essential it was for us!¹³⁰

Contrary to Johnson's more general and correct observations here, Chatham's transposition of these extreme minimalist practices to explore acoustics and perception via amplified electric guitars would allow this 'one-note' music to evolve into another form using the new instrumentation, performance approach, and a vital energy.

Two Gongs was formative for Chatham's later music, establishing a method of working in real-time to evoke an affective, immersive experience through generating and sustaining a dense sound wave, comprised of a complex of fundamentals and overtones, using amplified instrumentation. This penchant for long durations, loud dynamics, and noisy timbres – evident in *Two Gongs* – remained a constant in his following music too. Chatham asserts the significance of this work for him:

Two Gongs was an important piece for me because I decided to base a lot of my later work with electric guitars around it. To a certain extent, *Guitar Trio* (1977) was influenced by this piece in its use of the harmonic series as its primary vocabulary, but it was particularly with *Drastic Classicism* (1981) that I overtly tried to make the guitars sound as much as possible like the gong piece.¹³¹

The meditative and ritualistic elements evident in this work are connected with intent to significantly alter consciousness for audience and performers through

¹²⁹ Johnson 'Introduction' in *The Voice Of New Music, New York: 1972-1982*, unpaginated.

¹³⁰ Ibid.

¹³¹ Chatham, liner notes for *An Angel Moves Too Fast to See; Selected Works: 1971-1989*, 23.

music, an approach that would reverberate throughout his subsequent music.

The composer had yet to make his most significant contribution to downtown composition. While his early minimalist compositions were foundational for his later practice, they were similar to works produced by his mentors, for example, La Monte Young and Maryanne Amacher. However, as I will outline in the next chapter, his move away from minimalism per se would see him develop music with a distinct compositional voice.

Concluding Thoughts

In this chapter I determined Chatham's development as a composer and performer in New York's downtown art scene from 1970 to 1974, through his involvement with minimalist composers (Conrad, Palestine, and Young), Pandit Pran Nath, and The Kitchen curatorship. I identified the affective, experiential, and participatory aspects foundational to Chatham's later work; notably, evoking sentience and the emotive aspects of musical experience through communal or ritualistic performances in the context of new performance spaces (lofts, galleries, venues, etc.), sometimes involving cross-disciplinary approaches. The affective power of resonant tones, accentuated by precise tunings, sustained over long durations, and concerns with active listening and psychophysiological alteration through immersion in these sounds were a feature of Chatham's activity as a composer and performer during this period and thereafter. Immanent perception of music's materiality in the here and now – rather than focusing upon cerebration or musical representation – was paramount; this was facilitated by trance-inducing musical components capable of generating open-ended states of expanded awareness, marked by decreases or lapses in the self-referential awareness characteristic of everyday waking consciousness. In this way, the integral function of downtown composition could serve as a means to reflect profound states of consciousness and to actualise these states.

This immanent aesthetic was evident across downtown music – and in Chatham's work – during this period. Seth Kim-Cohen suggests this works 'along Cagean lines [and] imagines that sounds-in-themselves are deeply

valuable entities imbued with eternally-rewarding, sensual and experiential qualities'.¹³² I interpret the experiential and sensual qualities of these post-Cagean listening practices as immanent – being within the world – rather than of a transcendent, or an ideational beyond. For example, Pauline Oliveros foregrounded embodied and subjective responses to musical materiality in her *Deep Listening* practice, partially derived from her experiences with Eastern meditation and ritual, and concerned with the evocation of expansive, immanent states of consciousness through composing, performing, and listening to music.¹³³ Likewise, the music of Chatham, Conrad, Palestine, Pran Nath, and Young situated an individual as a subjective and embodied participant within sound in its immanence, as it constitutes their environment, or as Oliveros terms it, a 'return to the whole of the space/time continuum'.¹³⁴

Notably, the physicality of minimalism, incorporating an individual's subjective responses to those sounds, was a departure from classical music characterised by cerebration, including Cage's. Gann notes the focus of these prevalent styles of the 1950s and early 1960s:

As much as serialism and conceptualism represented diametrically opposed poles of the classical spectrum, one seeking after consummate control and the other a complete abnegation of control, both were marked by a cerebral quality almost totally devoid of physicality.¹³⁵

As a practitioner of minimalism, Chatham would hereafter draw upon its compositional techniques to distil idiomatic elements from rock and then synthesise these elements to create individual music, with noted physicality, in the context of postmodernism. How and why this change came about will be discussed in the next chapter.

¹³² Seth Kim-Cohen, 'No Depth: A Call for Shallow Listening' in Seth Kim-Cohen, *Against Ambience and Other Essays* (New York: Bloomsbury, 2016), 134.

¹³³ Pauline Oliveros, *Deep Listening: A Composer's Sound Practice* (New York: iUniverse Inc., 2005).

¹³⁴ Oliveros, *Deep Listening: A Composer's Sound Practice*, 2005, 12.

¹³⁵ Kyle Gann. *American Music in the Twentieth Century*, 1997, 292.

Chapter Four: Engagement with New York Rock (1975-1978)

This chapter focuses on Chatham's activities in downtown music when new aesthetic sensibilities connected with postmodernism arose to prominence between 1975 and 1978. I analyse why the composer and his peers began to engage with popular music in this context and how Chatham's involvement with this new music opened the way for his subsequent involvement with rock. I detail how rock music, and a concert by the Ramones in 1976, proved to be a crucial influence for the development of his aesthetics and practice in works for electric guitars. I map his proximity to New York rock, including the 'no wave' scene, during a time when he played in rock groups, acquiring idiosyncratic techniques and performance approaches between 1976 and 1978. To conclude, I discuss the significance of *Tone Death* (1977), the composer's first work using electric guitars.

4.1 New Music and Postmodernism

Broadly speaking, postmodernism defines itself as both a continuation of, and departure from, principles of 'modernism' in the arts, culture, and music. Postmodernism is used here as a broad designation applied to musical works, generally created from the 1960s onward, that share common aesthetic sensibilities, rather than a distinct style. Cox and Warner summarise these sensibilities as 'characterised by a breakdown of the boundaries between high art and mass culture, the reemergence of explicit political and social concerns in art, the often ironic juxtaposition of references to heterogeneous historical or cultural styles, the rejection of modernism's utopian progressivism, etc.'¹ Fittingly, for an aesthetic approach that focuses upon difference and specificity, there is no universally agreed upon definition of postmodernism; nonetheless, I

¹ Cox, and Warner, *Audio Culture: Readings in Modern Music*, 2004, p. 414.

discuss Chatham's activities hereafter in this thesis in the context of postmodernism, especially, in relation to the first clause outlined above.

A turn toward the experiential and away from the discursive is characteristic of postmodernism in music, and in culture, more generally, where the individual and the subjective – albeit often in the context of a collective experience – is emphasised, rather than notions of the objective and the universal. Tim Rutherford-Johnson comments:

Defining postmodernism is a treacherous business, not least because of its own skeptical attitude toward fixed meanings, grand narratives, and historicist logic. However, at its heart is a turn (or return) to the freedom of the individual subject and away from objective authority, in whatever form that may take. This is captured most succinctly in Jonathan Kramer's observation that postmodernist music "locates meaning and even structure in listeners, more than in scores, performances, or composers".²

The development and realisation of Chatham's electric guitar works accord with Rutherford-Johnson's appraisal of postmodern music as it focuses upon individual freedom in composing, listening, and performing. His work deviates from Kramer's observations somewhat, insofar as the role of composer establishes the parameters of structure (durations, form, harmonic language, and rhythms); however, meaning is indeed frequently located in listeners, as are structural elements. This latter element is located in performers through improvisation, albeit to different degrees in the non-notated and notated works for electric guitars (discussed in more detail in Part Two and Three of the thesis).

For a number of young composers, the freedom of choice afforded by postmodernism led to an engagement with material from beyond the avant-garde in their music, especially popular styles such as rock. It was within this context, that along with his colleagues, Peter Gordon (b. 1951) and Arthur Russell (b. 1951), Chatham began to play with groups coming from an avant-garde classical tradition, whose compositions were significantly influenced by popular music. Beginning in 1975, his role as a flautist in Gordon's Love of Life Orchestra provided him an opportunity to work with this music merging elements of art and popular idioms (*Figure 4.1*). He also performed as a flautist

² Tim Rutherford-Johnson, *Music After The Fall: Modern Composition and Culture Since 1989* (California: University of California Press, 2017), 54.

in Russell's instrumental music ensemble from the mid- to late-1970s (and again from 2015), including a performance at the Kitchen on 27 April 1975.³ Chatham notes:

The year 1975 was an interesting time on the downtown music scene. Prior to that, most of the music happening there was coming out of Fluxus and John Cage. But then you had this whole crew of people come to New York from the West Coast—Arthur Russell, Peter Gordon, Jill Kroesen—they were doing something *really* strange. They'd all studied with Robert Ashley, so they were doing music that was, quote-unquote, crazy. They were doing rock pieces—songs or rock-influenced instrumental pieces. I wasn't sure what I thought of it at all. I was a hardcore minimalist who studied with La Monte Young and played in Tony Conrad's group. But eventually I played flute in Peter Gordon's Love of Life Orchestra, and it won me over to rock-influenced compositions.⁴



Figure 4.1: Love of Life Orchestra around 1975-76 (left to right): 'Blue' Gene Tyranny, Peter Gordon, Peter Zummo, and Chatham (uncredited courtesy of the composer).

Tim Lawrence provides an overview of composers from an avant-garde tradition making connections with popular music during the 1970s:⁵

³ Chatham features as flautist on ten songs recorded at The Kitchen performance, including a flute solo on *Instrumental 1D*, later released as Arthur Russell, *First Thought, Best Thought*, Audika, AU-1005-2, 2006.

⁴ Chatham, in Licht, 'Rhys Chatham', 2008.

⁵ For the purpose of this thesis I focus upon Chatham's work with elements derived from popular music; however, there are numerous instances of experimental popular musicians sourcing inspiration from the avant-garde during the 1960s and 1970s. For example, John Cale drew upon the drone-based minimalism of The Theatre of Eternal Music for his work with The Velvet Underground (1964-1968), and The Beatles created sound collages and used tape loops inspired by Karlheinz Stockhausen's compositions during 1966-69, most notably on their 'Revolution 9' (1968).

Composers had [...] begun to explore the popular terrain, and the Center for Contemporary Music at Mills College was a key location for this activity. The center's director, Robert Ashley, asserted the center's hybrid agenda by developing a series of mixed-media operas, and he also employed the pianist "Blue" Gene Tyranny (born Robert Nathan Sheff), who had played in the Prime Movers and contributed to the band's decision to hire Jim Osterberg (later known as Iggy Pop) to play drums. Terry Riley, who collaborated on *Church of Anthrax* [(1971)] with John Cale, made music that combined art and popular forms while based at Mills. And Peter Gordon premiered *Machomusic* [(1976)] for six saxophonists and electronics during his graduate studies in San Diego, after which he enrolled at Mills to continue his work. Elsewhere, [...] the philosopher, musician, and anti-art activist Henry Flynt explored [...] country-style violin compositions; Tony Conrad played with Young as well as the German Krautrock group Faust; and Jim Burton teamed up with Rhys Chatham and Garrett List to deliver a Hank Williams-inspired country-and-western concert that featured an atonal horizontal slide guitar and vocals sung on helium (all performed in front of a mock Western saloon).⁶

Chatham began to engage with popular music from 1975 onward, leading to his assimilation of these experiences, and the eventual development of new music influenced by it.

Russell's role as music curator at The Kitchen during 1975 had an impact upon the downtown scene and Chatham, in particular. He introduced rock music into the programming at The Kitchen, with Jonathan Richman of The Modern Lovers performing shows on four consecutive nights at the venue between 19 and 22 March 1975. This move was viewed with derision by a section of downtown composers who saw rock as the antithesis of art (perceived as a homogenised form of entertainment), and were threatened by its incursion into a space dedicated to art music. Chatham recalls his initial reservations:

Rock was somehow less. Back in the early seventies, people were still questioning rock's validity, Arthur's unique contribution was to introduce rock groups to the programming, which was considered heresy at the time, but proved to be prophetic in its vision. I was shocked. But it made me think, and I ended up joining in. What can I say?⁷

The desire to explore popular music proved intriguing for those seeking to pursue a musical path beyond Cage and the early minimalists, and subsequently, a number of downtown composers, including Chatham, began to engage with popular music and rock material in their compositions.

Bernard Holland comments,

⁶ Lawrence, *Hold on to Your Dreams: Arthur Russell and the Downtown Music Scene, 1973-1992*, 67-68.

⁷ Chatham, *ibid*, p. 70.

When the credibility of the European concert-music style began to sag in the 1970s, composers like Mr. Chatham seemed uninterested in continuing the straight path that had led from old Bach to modern Schoenberg. They began to reach past and in other directions. Music from the East was one, rock-and-roll another. With its tendencies toward self-hypnosis through repetition, the first satisfied a new yearning for ritual and its attendant mysteries. The second answered a craving for more gritty yet equally liberating energies.⁸

Writing in 1975, Gordon also identifies Chatham as one of the young American composers beginning to interweave these aforementioned elements:

Composers within the “avant-garde” world are breaking down the distinctions between “serious” and “pop” forms. Robert Sheff [‘Blue’ Gene Tyranny] has referred to this as Tantra⁹ meeting the West, the union of the head (intellectual) energy with the body (sexual) energy to create a vital force flowing from asshole through the body and head. The new works of Rhys Chatham, Jill Kroesen and Arthur Russell [...] demonstrate this trend.¹⁰

These observations identify three elements that Chatham would merge in his subsequent work: downtown avant-garde and popular music aesthetics and practices, along with music’s meditative and ritualistic power, most frequently associated with music and religious practices from the East. This latter component is understood as practices, musical or otherwise, designed to evoke a vital force or ‘psyche’, understood as ‘the energy or spirit which animates living creatures; the soul’.¹¹

Rutherford-Johnson notes that postmodernism in composition emphasised the agency of the listener and ‘led to a reconsideration of the nature and value of musical pleasure and of the composer’s responsibility toward satisfying the listener’s needs’.¹² Here, he proposes ‘music and the discourse surrounding it, turn to the subjective listener as an individual participant, consumer, and pleasure seeker’, which led to a turn toward the body, where ‘pleasure was often determined in physical and/or erotic terms, and the body was viewed as a performing or listening subject’.¹³ Chatham’s musical turn toward sensuality

⁸ Bernard Holland, ‘Rhys Chatham Reaches Out For a Postmodernist Merger’, 1990, <http://www.nytimes.com/1990/12/02/arts/review-music-rhys-chatham-reaches-out-for-a-postmodernist-merger.html>. Accessed 26 November 2009.

⁹ A tradition of meditation and ritual practice that originated in India around the fifth century AD.

¹⁰ Peter Gordon, ‘Public Music’, *EAR Magazine*, 1975, 3.

¹¹ Anon., ‘Vital Force’, in *Oxford Dictionary*, 2016, <http://www.oxforddictionaries.com/definition/english/vital-force>. Accessed 25 April 2016.

¹² Rutherford-Johnson, *Music After The Fall: Modern Composition and Culture Since 1989*, 54.

¹³ *Ibid*, 54.

coincides with these tendencies in music, more generally, and with issues of accessibility also.

Kyle Gann identifies Chatham and other artists emerging from a composerly tradition as 'refugees from the avant-garde, tired of its sterility and waning relevance'.¹⁴ These include Laurie Anderson (b. 1947), Robert Ashley (1930-2014), Glenn Branca (b. 1948), Diamanda Galas (b. 1955), Philip Glass, Michael Gordon (b. 1956), Mikel Rouse (b. 1957), Terry Riley, and Frank Zappa (1940-1993). Broadly speaking, this music sought to engage an audience by combining elements from music beyond a classical tradition, albeit transformed by a conceptual and practical approach drawn from the avant-garde; in this way, hierarchical structures and boundaries between genres were interrogated by composers operating across classical, jazz, and popular forms. In contrast with earlier developments in classical music, Béla Bartók's incorporation of folk music, or George Gershwin's use of jazz idioms, I argue that the work of these artists overlapped with, and influenced music outside a classical tradition to an unprecedented degree. For example, Chatham's subsequent work for electric guitar fused an experimental strain of popular music that overlapped with, and complemented, pop-influenced avant-garde music in a two-way exchange that would recontextualise both genres.

After Chatham worked with minimalist music from 1969-1974, which he associated with the conclusion of the modernist project and its transition to postmodernism, he identified his work with 'new music' from 1975:

The music of the seventies heralded the beginning of the post-modern period, though few of its composers ever thought of what they were doing as being "post-modern". We simply called our music "new music" back then [...]. Once the modernist movement in music was fully decoded, after intuiting the implications of this decoding, art music composers devoted themselves to the task of spending the next ten to fifteen years exploring the possibilities they alluded to, making many and widely varying musics in an attempt to find a new musical platform and agenda through the simple method of trial and error. Or to use the art critic Hal Foster's term, composers commenced the project of re-coding their music. [Thus] the seventies saw an opening up on the part of art music composers to the music of other cultures and popular music.¹⁶

¹⁴ Kyle Gann, 'American Mavericks: Between a Rock and a Hard Place', 2003, http://musicmavericks.publicradio.org/features/essay_gann13.html. Accessed 24 March 2014.

¹⁶ Chatham, 'Composer's Notebook 1990 Toward a Musical Agenda for the Nineties', 1994.

A desire to be heard would also lead Chatham to create works using idiomatic popular music elements to explore concerns from the avant-garde. In particular, working with popular music's energy and sound allowed the music to reach beyond the downtown art audience, as well as to experience its exhilarating libidinal energies.

This postmodern downtown movement questioned established notions of hierarchy and power through art that interrogated and subverted notions of refined ('high') and vernacular ('low') art, in an era when boundaries between genres and art forms opened up. Gann characterises the work of these composers as follows:

The American maverick composers have certainly not chased after immediate success, nor have they cared for the respect of the academy. Instead, they have clung to a stubborn faith that music need not be compartmentalized, that it can bring together heart, brain, and body. They have believed that music can be intelligent, brilliantly structured, deeply felt, and also set your foot tapping, all at once.¹⁷

The downtown composers consciously sought to create art freed from the limitations imposed by pre-established approaches and forms, including divisions between disciplines and genres. Marvin J. Taylor records the iconoclastic nature of this downtown art that sought to 'kick culture – both in the sense of forcing it to change and, possibly, in the sense of renouncing its stifling, prescriptive structures, which can be so addictive', and in the process this 'work exploded traditional art forms, exposing them as nothing more than cultural constructs'.¹⁸

'New music' is a purposely ambiguous term for the work of Chatham and those composers who actively sought to collapse constructions of 'high' and 'low' art. Gann reports that 'new music started out as a movement of disaffected classical composers with a new, nonelitist experimental attitude, their own vocabulary, and their own genealogy of influences', identifying that it came to prominence between 1976-1982, partly through the efforts of Chatham and his colleagues at The Kitchen.¹⁹ He outlines how downtown composers draw musical ideas from 'their personal experience and environment', including pop music, and that

¹⁷ Ibid.

¹⁸ Marvin J. Taylor, 'Playing The Field: The Downtown Scene and Cultural Production, an Introduction' (2006), 23.

¹⁹ Gann, *Music Downtown: Writings from The Village Voice*, 2006, 116.

'there is a strong sense that, however one may have been trained, true art should be directed toward, and drawn from, one's everyday life and experience – *not* a musical tradition from a long-ago era and a distant continent'.²⁰

Chatham viewed the search for his compositional voice in the context of the first wave of downtown composers working with minimalist music, and who made individual connections with musical traditions outside of Western art music:

Steve Reich used his experience learning from drummers in Ghana to make his music; Philip Glass was working with a largely jazz instrumentation to make the process music he was doing; Charlemagne, La Monte and Terry were heavily influenced by Pandit Pran Nath. So I asked myself, what influence could I have that would make sense for me that was outside of music coming out of a conservatory tradition. In short, what was I inspired by?²¹

Accordingly, he suggests that 'the hierarchy smashing initiated by a previous avant-garde' allowed him and his peers, Laurie Anderson, Peter Gordon, Jill Kroesen, Arthur Russell, and "Blue" Gene Tyranny to 'embrace rock music and make it their own', and to 'base their work upon the music and rhythms of rock'.²² Nonetheless, it was his divergence from the previous avant-garde that marked the emergence of his distinctive compositional approach.

To differentiate the music, including Chatham's, that emerged post-1975, yet remained aligned with a minimal technique of composition I use the term post-minimalist. For this purpose I deploy Jelena Novak's definition: 'postminimalism is neither a style nor a movement, but a heterogeneous conceptual field. Postminimalists comment on, reinterpret and question minimalist music in a postmodernist age, but do so in many different ways'.²³ Thus, this term acknowledges the origins in, and deviations from early minimalism, in the context of the postmodern period (post-1975) of the composer's music. Chatham would recontextualise his idiosyncratic post-minimalism in underground popular music.

²⁰ Kyle Gann, 'Introduction' (2006) in *Music Downtown: Writings from The Village Voice*, 2006, 6.

²¹ Chatham, in Anon., 'Interview: Rhys Chatham', 2013, <http://acloserlisten.com/2013/07/13/interview-rhys-chatham/>. Accessed 21 July 2014.

²² Chatham, '5 Generations of Composers at The Kitchen' (1992), 17.

²³ Jelena Novak, 'From Minimalist Music to Postopera: repetition, representation and (post) modernity in the operas of Philip Glass and Louis Andriessen', in Kyle Gann, Keith Potter, and Pwyll ap Siôn (editors), *The Ashgate Research Companion to Minimalist and Postminimalist Music* (Surrey: Ashgate, 2014), 130.

He would subsequently embark upon an investigation to explore what a 'composer' and 'serious' music might be in an era when rock became an influence upon New York's downtown scene. Thurston Moore comments that Chatham was one of the 'young guitar composers in New York City in the 1970s [...] who came of age when punk rock was happening'.²⁴ However, Chatham had to first gain experience playing as a rock musician before he could distil its idiomatic elements, and synthesise these with his avant-garde training.

4.2 A Punk Rock Epiphany: The Ramones

There comes a time when you have to break past your teachers and define your own voice. And in the early 70s, all the pieces I was doing ended up either sounding like La Monte [Young], or Tony [Conrad], Charlemagne Palestine, or Maryanne Amacher, and that's ok for a student – you've got to start somewhere – but eventually when I was around 24, I said, "you know, I've really got to find my own voice".²⁵

In May of 1976, Chatham attended his first rock concert with Peter Gordon, Arthur Russell, and David Von Tieghem at the CBGB rock club, located at 315 Bowery in New York's East Village. The live performance by the punk rock group the Ramones would provide him with a key component to create a new musical voice (*Figure 4.2*).²⁶ For Chatham, the concert was a hugely significant event: 'I was really inspired by this concert and it changed my life. It was an epiphany'.²⁷

After initial scepticism, the Ramones' energy, performance style, and sound impressed Chatham. Their music reduced rock 'n' roll to its most basic elements: a steady pulse, resonant harmonic material iterated in sections (chorus, verse, chorus, middle-eight, etc.) and played at high volume with an

²⁴ Thurston Moore, 'Q. & A. Masterclass', BIMM Institute, Dublin. Accessed 8 October 2015.

²⁵ Chatham, in Jason Crane, 'The Jazz Sessions #308: Rhys Chatham', 2011, <http://thejazzsession.com/2011/09/13/the-jazz-session-308-rhys-chatham/>. Accessed 20 November 2011.

²⁶ The Ramones played CBGB on 13, 14, and 15 May 1976; while Chatham cannot recall the exact date of the concert he attended, it is likely to have been one of these three performances.

²⁷ Chatham, in Anon., 'The Genesis of Punk Minimalism', 2014, <https://vimeo.com/77149660>. Accessed 3 November 2014.

intense performance energy. He began to perceive commonalities with his own music, claiming 'I thought what they were doing was more complex'.²⁸



Figure 4.2: The Ramones (left to right): Johnny, Tommy, Joey, and Dee Dee Ramone (Roberta Bayley, 1976)

Aside from Joey Ramone's vocal delivery, loudly amplified guitar chords, a solid bass pulse, and a steady rock backbeat drove the group's sound. Philip Sherburne observes, 'punk rock's three-chord template [...] drew from the blues tradition but ran itself through minimalism's compressed engine'.²⁹ Thus, as an advocate and practitioner of early minimalism, Chatham found similarities with the Ramones' reduction of music to its elemental principles:

They were working with I, IV and V, whereas I was only working with II! But, even so, I saw the music that they made was not dissimilar to the minimalist music that I was making, and I was thinking "You know, I could get into this, and what would happen if we did it without the voice?"³⁰

Kyle Gann suggests of rock's I-IV-V harmonic simplicity, 'to classical composers trained to value pitch structures above rhythmic energy or timbral sophistication,

²⁸ Chatham, in public interview with William Basinski at Café OTO, London, 19 March 2014.

²⁹ Philip Sherburne, 'Digital Discipline: Minimalism in House and Techno', Cox and Warner (editors), *Audio Culture: Readings in Modern Music*, 2004, 320.

³⁰ Chatham, in Bridges, 'Rhys Chatham interview', 2003.

such voluntary abnegation of subtlety seemed suicidal'.³¹ Nonetheless, as previously established, Chatham was very much interested in intervallic listening encompassing drones and resonant timbres, and iterated minimalist pulses coming from a downtown tradition, rather than conventional harmonic progressions.

The composer also emphasises the excitement and physicality of the Ramones' punk rock and their use of the electric guitar, 'I was absolutely taken aback and thrilled by the music, and by the visceralness of the experience. I'd heard rock 'n' roll for years but at that moment I fell in love with the electric guitar'.³² The physicality and volume of Charlemagne Palestine's vigorous eighth-note strumming technique in his piano works, which sometimes resulted in broken strings, would provide another point of contact between Chatham's avant-garde training and the Ramones' music. La Monte Young's high volume amplification of drones also had parallels with the Ramones' loud sound, and his own subsequent explorations of amplified guitar sounds. Chatham's music hereafter would focus upon the potential to elicit frisson, and subjective auditory experiences, through amplified guitars that accentuated the sound's resonance, texture, and timbre – most often, accompanied by bass and drums.

His music for electric guitar would distil the Ramones' punk rock performance energy and sound, and incorporate a rock aesthetic also (discussed below). Chatham had developed a penchant for the energetic rhythms and sounds of popular music during this period; consequently, he was drawn to the visceral and vital rhythms of Johnny Ramone's loudly amplified guitar, and 'the sheer energy and raw power' of the group's sound.³³ John Rockwell observes how live performances from the Ramones created 'nonstop energy [...] based on double-time guitar strumming'.³⁴ For example, 'Blitzkrieg Bop' (1976) deploys an amplified guitar to sound a I-IV-V-I progression with a steady eighth-note rhythm, sustaining an intense energy using a proliferation of harmonically resonant tones (*Figure 4.3*).³⁵

³¹ Gann, *American Music in the Twentieth Century*, 1997, 292.

³² Chatham, in Douglas J. Noble, 'Rhys Chatham on 100 Guitars', 1996, <http://www.djnoble.demon.co.uk/ints/RHYSCHA.THA1.html>. Accessed 24 May 2014.

³³ Chatham, 'Composer's Notebook 1990: Toward a Musical Agenda for the Nineties', 1994.

³⁴ John Rockwell, 'Speculation About Rock Spectacles', *The New York Times*, 16 May 1975, 24.

³⁵ Ramones, 'Blitzkrieg Bop' on *Ramones*, Rhino Records, RR-7520, 1991.



Figure 4.4: The Ramones perform live at CBGB, New York City in 1977 (Roberta Bayley).

Chatham continued to acknowledge the Ramones' influence upon his music, including a dedication to the four original members in the score of his *A Secret Rose* (2006) (Figure 4.5). Most significantly, this homage features a repeating double-strummed eighth-note pattern on the guitar (bars 135-136 and onwards), a rhythm that featured frequently in the Ramones' music (as detailed above), and which Chatham used consistently in his music from 1977. His desire to work with the attitude, energy, instruments, and sounds from punk would lead to music that synthesised elements from minimalism and rock that he distilled from his experiences of the music.

A Secret Rose - Movement 3 (melody)

Section 3B (from measure 125 to the end of the piece only) Rhys Chatham

In homage to Joey, Johnny, Dee Dee (may they rest in peace) and Tommy Ramone.

Measure 125 (129)

(133)

x4

Figure 4.5: A Secret Rose, Movement 3, dedication to the Ramones (courtesy of the composer).³⁶

There were aesthetic parallels between downtown art music and the Ramones' punk rock too, particularly evident in a conceptual approach to making music. For example, drummer Tommy Ramone states of the group's music, 'it's the ideas themselves that are important [...] virtuosity is not only not necessary but it might get in the way'.³⁷ The prerequisite to play this music was to have sufficient ability, attitude, and commitment to play the instrument. In keeping with the ethos of anti-virtuosity and musical egalitarianism, Mary Russo and Daniel Warner contend that punk was 'a spectacular assault' on musical technique.³⁸ Punk encouraged Chatham, and other individuals from outside the rock tradition, to take up mass-produced instruments – primarily, bass, drums, and guitars – and learn to express themselves in an intense, direct manner, often through collective effort rather than individual virtuosic skills.

Previously, Chatham had performed at the Poetry Project at Saint Mark's Church in New York's East Village, when future punk rock musicians Richard

³⁶ Note: all excerpts of Chatham's music given henceforth are courtesy of the composer unless otherwise noted in the caption (see 'Permissions' in Bibliography)

³⁷ Tommy Ramone, in Nicholas Rombes, *A Cultural Dictionary of Punk: 1974-1982* (New York: The Continuum Publishing Group, 2009), 225.

³⁸ Mary Russo and Daniel Warner 'Rough Music, Futurism, and Postpunk Industrial Noise Bands' (1987) in Cox and Warner (editors), *Audio Culture: Readings in Modern Music*, 2004, 52.

Hell, Patti Smith, and Tom Verlaine were aspiring poets in this context.³⁹ As punk rock began to energise the downtown scene, he found inspiration in the Ramones and these other punks, who approached music in an artful way, unconcerned with virtuosic talent:

Rock had gotten quite technical. There was a feeling that you had to have played guitar for years before you could play out in clubs. But when we all saw people like Patti Smith and Richard Hell playing, we thought, "Hey, if they can do it, maybe we can, too." It was encouraging for a lot of people.⁴⁰

Artist and critic Dan Graham underlines that Patti Smith was key in establishing 'rock as an art form', and stresses the importance of her work and other punk rock artists of the era who created music charged with a fascinating, vitalizing force:

Warhol and other Pop artists had brought the art religion of art for art's sake to an end. If art was only business, then rock expressed the transcendental, religious yearning for communal, nonmarket aesthetic feeling that official art denied. For a time during the '70s, rock culture became the religion of the avant-garde art world.⁴¹

Although rock was a source of energy, fascination, and fun for New York and its art world at this time; nevertheless, Chatham's desire to create works that comprised rock music would require further investigation to accomplish.

After the concert by the Ramones, Chatham borrowed a Fender Telecaster guitar from composer and musician Scott Johnson, who taught him barre chords and blues scales. He chose to learn a right-handed playing style despite being left-handed, commenting that, 'I wanted to be able to play other people's guitars'.⁴² Inspired by punk rock and equipped with the technical knowledge provided by Johnson, Chatham's first developed music for the instrument using barre chords, which he performed at composer Phil Niblock's Intermedia Foundation loft space on Centre Street in 1976. Although Chatham was a talented flautist, he encountered difficulties mastering the guitar and playing rock music initially:

³⁹ Chatham's *Four Words* (1975) for four performers debuted at St. Mark's Church with musicians: Beth Anderson, Rhys Chatham, Michael Cooper and Jackson Mac Low.

⁴⁰ Chatham, in Marc Masters, *No Wave* (London: Black Dog Publishing Limited, 2007), 22.

⁴¹ Graham, 'Rock My Religion', Dan Graham, *Rock My Religion: Writings and Projects, 1965-1990*, 1994, 113.

⁴² Chatham, in Graham Young, 'Guitarists set to rock Birmingham Town Hall to its foundations', *Birmingham Post*, 2014, <http://www.birminghampost.co.uk/whats-on/music-nightlife-news/secret-rose-100-guitars-comes-7182175>. Accessed 17 April 2015.

I said, “This isn’t going to be any problem at all, guitar is an easy instrument, I can count to four, and I can play Boulez’s *Sonatine (for flute and piano)*, no problem” but then my playing was really stiff and I was playing like a classical musician, and I still hadn’t completely broken away from the notion of playing music while reading.⁴³

This exploration of rock music would present challenges and opportunities to Chatham, as a composer, and as a musician coming from an avant-garde tradition.

At this juncture, Chatham distilled the essence of the Ramones’ foundational punk sound: an affective, conceptual, and minimal form of rock using high volume and repetition, privileging sentience, and thus, akin to concurrent tendencies in downtown music, particularly, minimalism. Additionally, punk was exemplified by anti-virtuosic and egalitarian ensemble playing that narrowed the distance between audience and musician in a communal performance, which also evoked music’s emotive component to move an audience strongly.

After punk was subsumed into the mainstream of culture, its aggressive sound, conceptualism, and do-it-yourself ethos was reconfigured in no wave rock, a post-punk movement that happened in New York from 1976 onward. Tony Conrad identifies punk as a crucial influence here for the music of Chatham and his contemporaries:

When punk emerged, the way it upended things was interesting; it was fascinating to hear punk spliced together with sustained sound, as happened in the case of Sonic Youth or Rhys Chatham or Glenn Branca. [...] Punk really shifted sensibilities in a way that was dramatic.⁴⁴

Critically, Conrad proposes the result of combining ostensibly divergent practices is that ‘it reanimates a posture, a set of conditions and a practice [...] which is then recontextualized. The contextualisation is what becomes interesting’.⁴⁵ Hereafter, I will outline how Chatham’s reanimation and recontextualisation of minimalism and punk – and its synthesis in his music – happened through an association with no wave rock.

⁴³ Chatham, in Bridges, ‘Rhys Chatham interview’, 2003, <http://brianbridges.net/wp-content/uploads/2013/05/Rhys-Chatham-interview-MPhil-edited.pdf>. Accessed 28 July 2015.

⁴⁴ Conrad, in Grubbs, ‘Always at the End’, 2009.

⁴⁵ Ibid.

4.3 Popular Avant-gardism: No Wave Music

I wanted to work as a composer using [...] rock instrumentation, but I didn't want to simply appropriate the instruments and do something shallow with them. So I had to do "field work" by actually learning to play the music and hanging out with the musicians and learning how they worked as well as adopting the lifestyle.⁴⁷

Chatham's involvement with the no wave scene of underground popular music happened in New York after punk.⁴⁸ His activity as a rock guitarist included co-founding The Gynecologists, founding Tone Death, and performing with Arsenal; he also played bass for a couple of Theoretical Girls' performances with Glenn Branca, Jeffrey Lohn, and Wharton Tiers.⁴⁹

Chatham's participation in no wave music led him to experiment with rock outside its approved compositional, instrumental, and performance conventions. In a manner akin to the radicalism inherent in downtown art of the period, this underground music scene was opposed to established constructions of art and tradition, and actively sought to destroy old forms to create anew. Whereas punk was rock music stripped down to a minimal style – partly, in reaction to overinflated elitist progressive rock – no wave sought a radical break with the past, one that reflected the realities of New York's urban environment in the late 1970s.

The divergent sensibilities of these no wave musicians were characterised by an abrasive and dissonant sound, attitudinal performance styles, and a disregard toward conventional instrumental techniques and musical form. Weasel Walter identifies the aggressively individualistic attitude of no wave, as exemplified by the music of Lydia Lunch of Teenage Jesus and the Jerks:

It [...] truly screamed, "Fuck you all! I don't want to be like you!" Punk said, "Fuck them! We don't want to be like them!" See the difference?" [...] Favouring extremes, complete alienation seemed more appealing than some watered-down pose.⁵⁰

This emphasis upon individuality in no wave mirrored the splintering of subcultures in downtown postmodernism from the mid-1970s, and its move

⁴⁷ Chatham, in Young, 'Rhys Chatham', 1999.

⁴⁸ The no wave scene encompassed film, music, performance art, video, and visual art also.

⁴⁹ Branca and Chatham first worked together in 1978 after Chatham accepted Lohn's invitation to play bass on the Theoretical Girls' song 'Computer Dating' for a couple of performances.

⁵⁰ Weasel Walter, in Marc Masters, *No Wave*, 7.

away from a single identifiable school or distinct compositional style. Moreover, the pursuit of an increasingly idiosyncratic musical path, and the development of his own compositional voice had preoccupied Chatham after his formative work in downtown music.

Stephen Graham's conceives of underground music, such as the no wave, as a 'popular avant-garde'.⁵¹

Using material from popular culture in new contexts and to new ends, its musicians counterbalance mainstream musical discourse, questioning its prejudices and its assumptions, while at the same time providing a forum of participation for those who feel excluded by that mainstream discourse.⁵²

By recontextualising material from underground rock in the context of downtown composition, and vice versa, Chatham's subsequent music for electric guitar would elude the mainstream discourses of classical and rock, undermining its assumptions, and imploding its pre-existing forms.

No wave presented an ideal opportunity for Chatham's musical development through a scene that had overlapping aesthetic and practical concerns with 'new music'. Bernard Gendron reports the no wave bands were 'on the boundary between art and pop, neither strictly art nor pop, yet both art and pop, belonging to both worlds. This was [...] a truly borderline music, a true art/pop fusion'.⁵³ Brian Eno remarked of the 'very unusual' aesthetic of no wave music: 'what I saw in New York clearly connected itself with a fine art tradition [...] rather than with a punk music tradition'.⁵⁴ I agree that the conceptual aesthetic sensibility of the no wave comprised elements of art; nonetheless, punk's aggression, anti-virtuosity, attitudinal performance style, 'do-it-yourself' aesthetic, and visceral energy informed no wave scene to a significant degree.

Upon deciding to play rock, Chatham connected with English artist Robert Appleton through the writer Kathy Acker, and another friend of Appleton's from art school in London, Nina Canal, who had relocated to New York in 1976 (*Figure 4.6*) to form a group called The Gynecologists. The Gynecologists and Theoretical Girls, known as the 'SoHo' groups, were considered peripheral to

⁵¹ Graham, '(Un)popular Avant-Gardes: Underground Popular Music and the Avant-Garde', 1.

⁵² Ibid, p. 15.

⁵³ Gendron, *Between Montmartre and the Mudd Club: popular music and the avant-garde*, 2002, 278.

⁵⁴ Moore and Coley, *No Wave: Post Punk Underground New York: 1976-1980*, 2008, 78.

the scene that centred upon the groups located around Manhattan's Lower East Side: DNA, Mars, Teenage Jesus and The Jerks, and The Contortions. Mark Cunningham of Mars outlines the perception of the 'arty' SoHo bands, 'they were more formally associated with the art world, and some had studied music'.⁵⁵ The Lower East Side bands were more orientated toward popular music, socially connected to one another, and crucially, they – and not the SoHo groups – would later record with Brian Eno for the no wave compilation *No New York* (1978).⁵⁶ Simon Reynolds contends that The Gynecologists and Theoretical Girls 'had been pointedly excluded, because of their association with the SoHo art scene'.⁵⁷

⁵⁵ Mark Cunningham, in Masters, *No Wave*, 111.

⁵⁶ Various artists, *No New York*, Antilles Records, AN-7067, 1978.

⁵⁷ Simon Reynolds, *Rip It Up and Start Again, Postpunk: 1978-1984* (London: Faber & Faber, 2005), 59.



Figure 4.6: 'Meet The Gynecologists' feature in NO fanzine, Volume 1, Number 2, Summer 1977 (top to bottom): Rhys 'Rege' (Chatham), Nina Canal, and Robert Appleton (courtesy of the composer).

With Chatham ('Rhys Rege') and Canal playing guitars, Appleton providing vocals, and Dale Kaplan drumming ('Hedy Van Dyke'), The Gynecologists performed their first, and last gig, with this line-up at Saint Mark's Church, New York in October 1977 (Figure 4.7). Robin Crutchfield of DNA, who would later form the group Dark Days with Nina Canal, recounts his reservations about Chatham's guitar playing during the performance, 'when I first saw the

Gynecologists, I felt Rhys Chatham was their weakest link'.⁵⁸ This criticism points out the difficulty a musician from classical music encountered when approaching rock. Kyle Gann observes,

The popular appeal of rock was grounded in a sexually exciting, highly physical performance style that few conservatory-trained composers were temperamentally prepared to imitate. Despite rock's harmonic simple-mindedness, it had evolved its own highly inflected idioms that classically trained composers could not simply pick up with any authenticity. One could no more step into that tradition without the proper background than one could suddenly pick up a sitar and sing Indian ragas.⁵⁹

Crutchfield also identified the direction that Chatham's subsequent work would take, adding, 'he was already pursuing interests in overtones and volume which he carried on into his next project Tone Death'.⁶⁰



Figure 4.7: The Gynecologists perform at Saint Mark's Place in October 1977 (left to right): Robert Appleton, Hedy Van Dyke, Rhys 'Rege' (Chatham), and Nina Canal (uncredited, courtesy of Robert Appleton).

After Chatham left The Gynecologists, he joined Arsenal with Charlie Nash and Stanton Miranda to work on his guitar playing technique. Following the experiences of rock music with Arsenal, he sought to distil his experiences into music using electric guitars. He proposes, 'it was through playing with [Arsenal]

⁵⁸ Robin Crutchfield, in Simon Reynolds 'Interview with Robin Crutchfield of DNA and Dark Day', 2009, <http://totallywiredbysimonreynolds.blogspot.ie/>. Accessed 23 March 2015.

⁵⁹ Gann, *American Music in the Twentieth Century*, 1997, 293.

⁶⁰ Crutchfield, in Reynolds 'Interview with Robin Crutchfield of DNA and Dark Day'.

– after a period of time – I finally got it. And it was only at that point, of playing in rock bands, that I was able to make a piece that reflected everything I was'.⁶¹ Playing with the no wave bands provided him with the final musical element to create music that distilled his work with amplification, electronics, minimalism, and tuning systems, and synthesised these into a coherent musical voice.

Brian Eno observed the extreme and innovative 'research' work of these no wave groups – an aesthetic comparable to Chatham's 'fieldwork' (*Figure 4.8*) – and how they provided inspiration for pushing boundaries in music:

There are a number of bands which have taken deliberately extreme stances that are very interesting because they define the edges of a piece of territory. They say 'This is as far as you can go in this direction'. Now, you might not choose to go that far, but having that territory staked out is very important. You achieve a synthesis by determining your stance in relation to these signposts. There are a lot of research bands in New York who are trying these experiments.⁶²

Bernard Gendron reports that many contemporary critics had difficulty classifying the no wave aesthetic, 'incorporating avant-garde components and rock components equally into its musical practices, and thus itself *musically* neither strictly avant-garde nor rock, [and] really a new mutation'.⁶⁴ He concludes that, no wave 'was simply punk meeting the avant-garde on the aesthetic boundaries between art and pop'.⁶⁵ Gendron's observation is important to contextualise Chatham's no wave activities of the period, and to understand how it overlapped and had parallels with his endeavours as a composer combining elements of new music with punk and no wave in his work for electric guitars. This statement delineates the no wave aesthetic, which I will use to define the position that Chatham's work would occupy from 1977 to 1982.

⁶¹ Chatham, in Crane, 'Jazz Sessions with Jason Crane', 2011.

⁶² Brian Eno, in Lee Moore, 'ENO=MC²' in *Creem Magazine*, November 1978, 34.

⁶⁴ Gendron, *Between Montmartre and the Mudd Club: popular music and the avant-garde*, 2002, 279.

⁶⁵ *Ibid.*



Figure 4.8: Brian Eno and Chatham (his face partially visible as the second figure to Eno's left, beside the tall man) at a Contortions gig in 1978 (Julia Gorton).

Crucially, Gendron notes that the borderline, or liminal character of the no wave extended to its demographic and institutional character as well as to its aesthetic:

The no wave bands were at the borderline between art and pop, not only demographically (in terms of membership and audience), but also institutionally, insofar as they trafficked back and forth between art institutions (the alternative spaces) and seedy rock clubs. Such sustained crossover activity between the avant-garde and pop institutions was altogether unprecedented in the history of rock music or any American popular music, for that matter. In previous interactions between popular music and the avant-garde in America, "high" and "low", appropriated from each other in their own institutional domains.⁶⁶

I acknowledge Gendron's observations about historical appropriation. On the other hand, I argue that as an active musician on the no wave scene, and a part of that rock culture (however liminally), Chatham was at liberty to recontextualise those experiences, along with those he gained in an art context, in his music. During a time of cross-cultural and cross-disciplinary activity in New York's downtown art scene, he synthesised rock's attitude and energy into music that destabilised previously established boundaries between genres. Thus, from 1977 to 1982, he maintained an ambiguous stance as a rock

⁶⁶ Ibid.

musician: his music was rock, and yet not simply rock, as it combined with his earlier training in downtown music.

Chatham and the second generation of downtown composers forged their own individual identities, in a manner akin to the no wave musicians, by a refusal to adopt homogenous practices. In Chatham's case, he embraced the extreme, the abrasive, and the nihilistic, thus imparting his art with an originality stemming from a fierce determination to individuality, innovation, and transgression. The politics of estrangement extended to declaring his music for electric guitar as 'not-not-rock', placing it at a remove from previous avant-garde and rock music constructs.⁶⁷

This ironic and (double) negative term is indicative of his absorption of no wave's provocative attitude, and particularly, its abnegation of rock convention. I propose that this allowed room to manoeuvre by not committing outright to rock, and being judged by standards of its prevalent generic conventions. This freedom to innovate expanded his artistic practice to include the rock music he was passionate about, and also affirmed the creative potential afforded by assuming a position between new music and no wave.

This opportunity to make music free from pre-existing convention allowed Chatham to blend composition, performance, and listening strategies from downtown music with an attitude, performance style, and sound assimilated from underground rock. The radical liminality of no wave music appealed to Chatham as an artist whose previous work was marked by an interest in heterogeneity. Thus, Chatham suggests, 'I was part of that No Wave scene and I never felt myself as part of the No Wave scene. I felt myself as a composer, working as a kind of secret agent in a rock context'.⁶⁹

This work led to preestablished artistic doctrines being contested and previous centres of power being destabilised. Susan McClary observes this movement in music during the period 1977-1984,

witnessed a major shift in 'serious' music, away from serialism and private-language music toward music that once again strives to communicate. Whether

⁶⁷ Chatham, in interview with present author, 2013.

⁶⁹ Chatham, in Alfred Pranzl, 'Interview with Rhys Chatham', 2008, <http://www.skug.at/article4592.htm>. Accessed 28 February 2014.

performance art, minimalism, or neo-tonality, the new styles challenge the ideology of the rigorous, autonomous, elitist music produced in universities for seminars. They call into question the institutions of academic training and taxonomies, of orchestras and opera houses, of recording and funding networks.⁷⁰

In addition, an unprecedented demographic and geographic cross-over was happening between a number of genres during this period: art, jazz, and rock. Chatham outlines his observations of this context:

A special set of circumstances had converged on the rock and art music scenes in NY which allowed musicians out of what then seemed like mutually exclusive contexts to mingle and merge in a way that hadn't really been possible before or since. People who were basically coming out of the rock scene like Robert Fripp were playing in places like the Kitchen, people coming out of a classical context where playing in rock clubs, jazz musicians like Oliver Lake and The Art Ensemble Of Chicago were playing in what before were considered bastions of classical music. There was a feeling back then of transgression and almost palpable danger present when these musicians crossed contexts. It ruffled feathers and was a cause of concern within the circles that were transgressed upon.⁷¹

His second curatorship of The Kitchen's music programme from 1977 to 1978 combined avant-garde and rock to the consternation of some of the jazz and art factions in The Kitchen's audience – a position indicative of the composer's developing rock-influenced aesthetic.⁷² Richard Kostelanetz reports: 'when Chatham returned to his position late in 1977, The Kitchen became the New York outpost for an international synthesis of rock with electronics developed by the avant-garde'.⁷³ Chatham produced concerts of music coming from an avant-garde tradition, including Laurie Anderson, Robert Ashley, Gavin Bryars, Philip Glass, Peter Gordon, Meredith Monk, Pauline Oliveros, Steve Reich, and experimental rock artists, including Brian Eno, Robert Fripp, and Fred Frith.

This art and rock overlap evident in the programming would serve to lay the groundwork for Chatham's subsequent musical explorations. Kostelanetz confirms that 'Chatham programmed some experimental rock, incidentally forecasting a direction his own music would take'.⁷⁵ When his second curatorship at the Kitchen concluded in 1978, Chatham was only an occasional

⁷⁰ Susan McClary, in Jacques Attali, *Noise: The Political Economy of Music* (translated by Brian Massumi) (Minneapolis: University of Minnesota Press, 1985), 157.

⁷¹ Chatham, in Young, 'Rhys Chatham'.

⁷² Following Garrett List's tenure from 1975-1976 when he programmed improvisers such as The Art Ensemble of Chicago, saxophonist Don Cherry, and pianist Cecil Taylor.

⁷³ Richard Kostelanetz, *SoHo: The Rise and Fall of an Artists' Colony* (New York: Routledge, 2003), 109.

⁷⁵ Richard Kostelanetz, *A Dictionary of the Avant-gardes* (New York: Schirmer, 2000), 114.

concert producer thereafter; notably, he organised and produced the influential 'New Music, New York' festival in 1979, the forerunner of the New Music America Festival. However, it was his experience of playing rock that provided the important practical element needed to develop a musical voice distinct from his mentors and peers in downtown music.

4.4 *Tone Death* (1977)

Tone Death was the prototype for Chatham's breakthrough work for multiple electric guitars *Guitar Trio* (1977), and a forerunner for his music for the instrument.⁷⁶ The work originated when Chatham began to extemporise overtone variations while sustaining the open low-E string of the electric guitar; a discovery the composer dates around 1976.⁷⁷ This innovation varied the morphology (overtone structure) of a note, or notes, sounded by the guitar, a direct application of minimalist concerns to new instrumentation.

Tone Death received its debut performance at the exhibition and performance space Franklin Furnace in the winter of 1977, with a four-piece ensemble comprised of two electric guitars (Chatham and Canal), drums (Robert Appleton), and tenor saxophone (Peter Gordon).⁷⁹ This line-up made one further undated appearance with Gordon as a member of the group. Aside from her involvement in *The Gynecologists* and *Tone Death*, Canal was a regular performer in Chatham's guitar ensembles between 1977-81.⁸⁰

With *Tone Death*, he began to create a conceptual, minimalist, and noisy continuous sound form by fusing his downtown training and his fieldwork in underground popular music. The composer's ability to identify and isolate (distil) elements of no wave rock (akin or compatible with his own training in the avant-

⁷⁶ As no recording of *Tone Death* is available at present, the critical reading of *Guitar Trio* in the next chapter will follow up the argument outlined here and discuss the realisation of its music.

⁷⁷ Chatham, liner notes for *An Angel Moves too Fast to See: Selected Works: 1971-1989*, 2003, 32.

⁷⁹ Franklin Furnace was located at 112 Franklin Furnace, off West Broadway, New York.

⁸⁰ The couple married around this time, before they split up in the early 1980s. Canal would work with Chatham again thereafter, on *An Angel Moves Too Fast to See* in 1994 (London), as a sub-conductor for the same work in 2004 (Nantes), as well as performing *Guitar Trio* with him on occasion since 2007. Canal's own musical endeavours with the groups *Dark Days* and *Ut met* with critical acclaim.

garde) allowed him to fuse these components in his own music later. He observed that the no wave scene consisted of 'people who were incorporating noise into the sound palette of rock in a way that we, the conservatory-trained composers, had been doing for a long time, but putting it into a rock context'.⁸¹ Thereafter, the composer would synthesise early minimalism, no wave and punk, by identifying key components of these amplified and reductive forms of music and merging them.

The no wave desire to make things anew was combined with a desire to destroy the content and form used in mainstream rock previously. Simon Reynolds surveys the experimental character of no wave:

Although some 'real' musicians participated in No Wave [...] most had no previous involvement with rock beyond being a listener. Typically, their primary vocation was film, poetry, or the visual arts. Coming to music from the other direction, they had a slightly distant approach, which enabled them to grapple with their instruments (often chosen arbitrarily) as foreign objects, tools to be misused or reinvented.⁸²

This disregard for orthodox musical techniques was a feature that Chatham explored to combine his interests from downtown music with experimental rock. John Lurie, a trained saxophonist and actor who lived on the Lower East Side during the late 1970s, comments upon the prevailing no wave attitude toward musical technique: 'nobody was doing what they knew how to do: if you knew how to do something it was kinda like "no, no, no, no, you can't have any technique", technique was so hated'.⁸³ Thurston Moore also states that the scene was 'very nihilistic' wishing to 'destroy everything before 1976' by eschewing the content and form of pre-established rock music.⁸⁴ Increasingly for Chatham, experiments with the energy, instrumentation, and sounds of underground New York rock informed his musical activity during this period.

Jim Sclavunos notes some shared characteristic of these divergent no wave musicians:⁸⁵

I think the aims and methods of each band were quite unique. However one common aspect to all the bands was their auditory roughness: harsh, strident

⁸¹ Chatham, in Jeff Kaliss, 'Other Minds Lifts the Veil on Rhys Chatham's *Grand Secret*', 2014.

⁸² Reynolds, *Rip It Up and Start Again, Postpunk: 1978-1984*, 53.

⁸³ John Lurie, in Céline Danhier (director), *Blank City*, 2010.

⁸⁴ Moore, in *ibid*.

⁸⁵ Sclavunos was a member of several no wave groups including: the Gynecologists, Red Transistor, Sonic Youth, Teenage Jesus and the Jerks, and 8 Eyed Spy.

instrumentation, dissonance, and atonality to some degree. All of the bands had somewhat alienating stage presentations. Audiences were subjected to random outbursts of violence or a disjointed stage presentation or cool obliviousness or disdainful hostility, sometimes all of the above.⁸⁶

Chatham cites no wave as a being a particular inspiration, 'we all felt free to incorporate whatever we wanted into the music and call it rock. There was this aspect that said, "No! I'm not going to learn how to play guitar normally, I'm gonna find my own way to play it – fuck tradition!'.⁸⁷

The group, Tone Death, used guitar amplifiers cranked up to maximum volume, a departure from the quiet electronic minimalist music that Chatham made concurrently (but would abandon in 1978). He acknowledges Young's use of loudly amplified harmonic series tones as a point of congruence with rock, 'it just seemed normal to play loud, I'd played loud with La Monte'.⁸⁸ Chatham recalls the powerful volume deployed:

During the punk period, you're a young man or a young woman and you've got this 100 watt amplifier – everyone was using 100W amplifiers back then – with all this power and you wanted to use it, to take advantage of it, and to make it a compositional [element].⁹⁰

In live performances, this compositional element provided an affective physicality; this is apparent in the photograph below, where a number of audience members are covering their ears (*Figure 4.9*) (see discussion of loud volume as compositional element in Chapter Five).

⁸⁶ Sclavunos, in *Masters, No Wave*, 32.

⁸⁷ Chatham, in *Masters, No Wave*, 22.

⁸⁸ Chatham, in interview with the present author, 2013.

⁹⁰ Chatham, in interview with the present author, 2013.



Figure 4.9: Chatham (left) and Nina Canal (right) perform as Tone Death at Artists Space, 105 Hudson Street, New York in 1978 (Stephanie Chernikowski).

This Tone Death concert at Artists Space on 3 May 1978 was part of a five-day festival featuring no wave bands: Contortions, DNA, Gynecologists, Mars, Teenage Jesus and The Jerks, and Theoretical Girls performing in front of a downtown audience. Another Tone Death concert from the same year illustrates the proximity of this music to underground rock, with no wave musicians Adele Bertei (James Chance & The Contortions), Laura Kennedy (Bush Tetras), and Pat Place (James Chance & The Contortions, and Bush Tetras) performing on the bill also. The prominence of female musicians in the no wave scene was notable, and Chatham's guitar ensembles at this time, and into the 1980s, also featured many female performers (Canal, Karole Arimage, Susan Springfield, etc).

The poster for the latter event is evocative of the bleak humour and nihilism associated with the no wave scene. It shows a grainy image of a figure laid out on the ground, with what might be an image of a sound wave connected to a large ear (perhaps, alluding to the 'deafening' loudness of the group's sound and its potential capacity to evoke 'unconscious' states in a listener). Kyle

Gann's misnomer for the group 'Tone Deaf' would also unintentionally associate hearing difficulties with the group (*Figure 4.10*).⁹¹

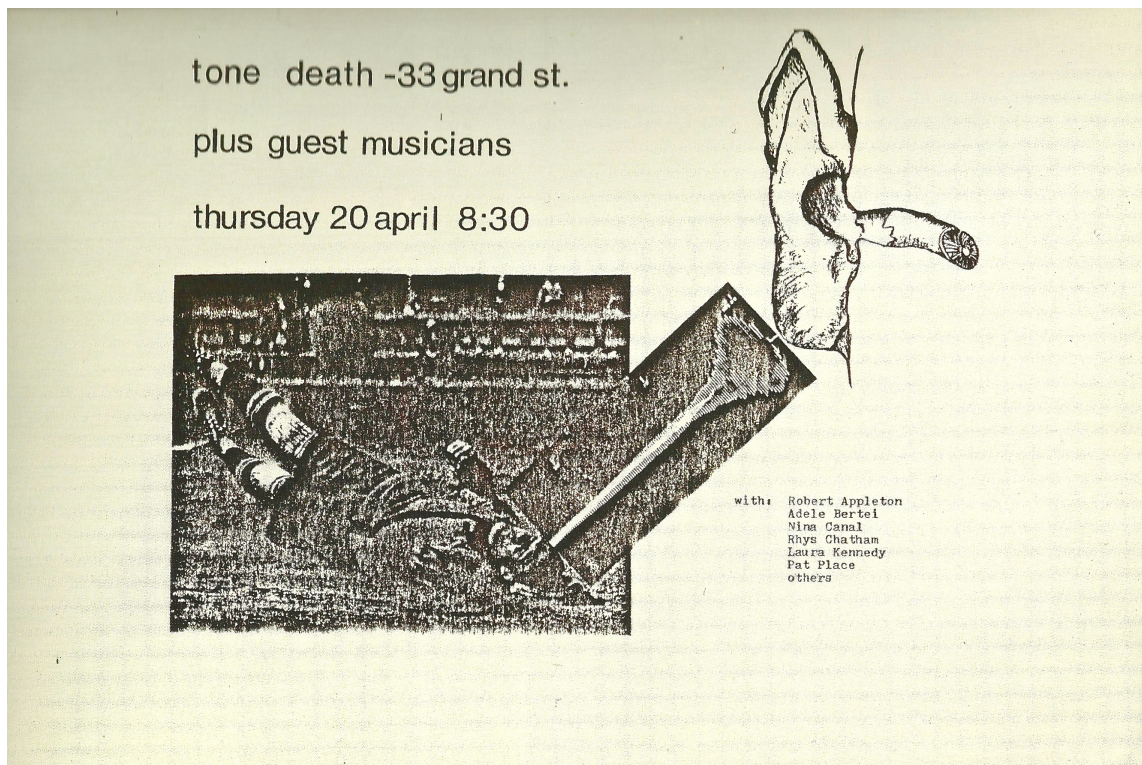


Figure 4.10: Poster for Tone Death performance at 33 Grand Street on 20 April 1978 (courtesy of Glenn Branca).

In the context of the musical postmodernism on the 1970s, Chatham's use of sustained tones to generate a continuous sound form over extended durations using amplified electric guitars was a significant gesture. For instance, Marcus Boon indicates that 'just as the drone can cause powerful shifts in individual consciousness, so it also re-organizes traditional hierarchies of music production and consumption'.⁹² Furthermore, Boon identifies the participatory elements that connects drone-based music (minimalism) and punk:

Drones, embodying and manifesting universal principles of sound and vibration, in a fundamental sense belong to nobody, and invite a sense of shared participation, collective endeavor and experience that is very attractive to us. It is this aesthetic of participation that connects them with the punk scene.⁹³

⁹¹ Kyle Gann, 'Harps From Heaven' (1994), Gann, *Music Downtown: Writings from The Village Voice*, 2006, 46.

⁹² Marcus Boon, 'The Eternal Drone' (2002), Rob Young (editor), *Undercurrents: The Hidden Wiring of Modern Music* (London: Continuum Publishing, 2002), 63.

⁹³ Boon, 'The Eternal Drone', 2003, <http://marcusboon.com/the-eternal-drone/>. Accessed 25 November 2014. Note: this is a revised version of the essay of the same title included in *Undercurrents: The Hidden Wiring of Modern Music*.

This use of powerful stimuli described by Boon and manifest in Chatham's music for electric guitars, coincides with Ted Coons' assessment of post-1945 culture at the Electric Circus: to create affective and immersive experiences that expanded a listener's conscious awareness through the activation of autonomic nervous system processes, associated with the movement to break down hierarchical structures in culture (noted in Chapter Two of this thesis).

Chatham used electric guitars to create loudly amplified drones that transgressed pre-established boundaries between art and rock by evoking the affective, experiential, and participatory potentialities of these sustained sounds. This is evident of a desire to level musical hierarchies across genres and to push aesthetic and practical possibilities. His approach aligns with the concept of underground music (albeit in composerly form) as outlined by Graham, characterised by 'radical political and aesthetic tendencies and [a] liminal position between dominant cultural categories of high and low'.⁹⁴ Boon identifies a post-1945 culture in the West shaped by electronic devices and focusing on 'participation, immersion, and acoustics' in contrast with the predominantly visual bias of the previous five hundred years, 'a culture of spectators, distance, and the written word'.⁹⁵ Chatham's music focusing upon acoustics, immersion, and engaging a listener's participation by psychophysiological means coincides with Boon's appraisal of the cultural development of the West in the twentieth century.

Concluding Thoughts

I have established how Chatham expanded his post-Cagean aesthetics and practice (especially, minimalist techniques) to encompass elements of New York rock. Initially, punk (and later, no wave) created an alternative to the mainstream of music, a subculture of popular music that had aesthetic and practical overlaps with post-Cagean downtown music (particularly, minimalism) that increasingly sought to communicate to new audiences while questioning the existing musical hierarchy. It was as a result of his involvement in the no

⁹⁴ Graham, '(Un)popular Avant-Gardes: Underground Popular Music and the Avant-Garde', 2010, 16.

⁹⁵ Marcus Boon, 'The Eternal Drone', 2002, 63.

wave scene that Chatham began to synthesise elements from downtown composition and rock, indicative of the postmodern boundary crossing at this place and time. He began to develop a distinctly postmodern form of post-minimalist music during this era. Robert Fink argues that ‘for Chatham, “post-minimalism” is anything and everything that happened after minimalism, the last modernism, burnt itself reductively out, taking the idea of an identifiable, marketable style (and the musical mainstream) with it’. I identify Fink’s use of ‘mainstream’ here with the discourses of the major culture whose categories and hierarchies were challenged and problematized by Chatham’s development of a heterogeneous aesthetic and practice.

Chatham’s work was connected with downtown’s postmodern project to dismantle outmoded hierarchical structures and generic constructions. This corresponds with Carlo McCormick’s assessment of the ‘multiplying subcultures’ that emerged on the downtown scene from the mid-1970s onwards, concerned with ‘a politics not of engagement but of estrangement’.⁹⁶ This estrangement from the discourses of ‘major’ culture manifested in music for electric guitar that synthesised minimalism and rock; however, Chatham’s work did not conform to pre-established cultural constructions, and resisted fitting squarely with classical or popular genres. A refusal to fit challenged prevailing the commercial and cultural infrastructures of these major musical traditions – and raised questions about the relative merits of ‘high’ and ‘low’ music. The resistance to mainstream musical discourse, and a move away from objective authority coincided with a splintering of musical subcultures, was part of a broader turn toward the individual subject connected with postmodernism in culture and music. In the chapter to follow, I examine how these aesthetic tendencies manifested through composing, performance, and listening practices in Chatham’s signature work for electric guitars.

⁹⁶ Carlo McCormick, ‘A Crack in Time’ (2006) in Taylor (editor), *The Downtown Book*, 2006, p. 78.

Part Two: 1977-1982

***Aesthetics and Practice in Chatham's Non-notated
Music for Electric Guitar***

Chapter Five: *Guitar Trio* (1977)

In this chapter I outline how *Guitar Trio* (1977) provides key insights into Chatham's aesthetics and practice in music for electric guitars. I review the background and performance history of *Guitar Trio* to clarify the development of the music. I examine the role of composition, and how it might serve to synthesise his musical experiences in a variety of contexts. I investigate how a performance of *Guitar Trio* is shaped by a combination of practices derived from art and rock. I discuss how certain modes of listening may be privileged by the work, and address the role of acoustics and psychoacoustics, entrainment, and frisson in a listener's experience. Thus, I provide a critical reading of *Guitar Trio* to identify how it synthesises elements from downtown music and underground rock through a combination of composition, performance and listening.

5.1 *Guitar Trio*

Guitar Trio originated directly from *Tone Death*, whose debut performance at Franklin Furnace in 1977, as the composer suggests, was the 'first version of *Guitar Trio*'.¹ *Guitar Trio* emerged from the earlier work after Peter Gordon's two appearances, when the sounds of multiple electric guitars became the primary focus of the music. Chatham developed the work thereafter with ensembles, using various monikers including Meltdown, The Din, Tone Death, and solo performances.²

He recalls the gradual changes that occurred during 1977-1979:

Guitar Trio started out as a duo for Nina Canal of Ut and me, soon adding Glenn Branca to make a third guitar. Nina and I played [...] normally tuned guitars and I gave Glenn a specially tuned guitar consisting of all E strings. After explaining to Glenn and Nina what overtones were and that we were going to be working exclusively with overtones for the melodic content of the piece, we decided to add a rhythmic element and [...] we had drummer Wharton Tiers just

¹ Chatham, liner notes to *An Angel Moves Too Fast to See: Selected Works: 1971-1989*, 2002, 32.

² For example, Chatham played a solo concert at Hallwells, Buffalo, New York on 6 June 1977. Another solo performance of this material is documented in Ericka Beckman, *135 Grand Street, New York, 1979*, 1979.

play high hat rather than the whole kit. This version [...] lasted about a half hour.³

The composer states that this music was first performed with three guitars and hi-hat drum when the aforementioned line-up 'played a loft party'.⁴ He records that this line-up debuted 'the full version' of *Guitar Trio* at the Peter Nadin Gallery.⁵ While the date of this performance is unconfirmed, a *Guitar Trio* concert at the gallery is documented on 16 May 1979 (*Figure 5.1*).⁶



Figure 5.1: *Guitar Trio* at the Peter Nadin Gallery on 16 May 1979 (left to right): Chatham, Nina Canal, and Glenn Branca (uncredited, <http://bit.ly/2klqb1y>. Accessed 28 December 2016).⁷

Despite extensive research, and enquires to Branca, Canal, and Chatham, it has not been possible to establish the exact dates of these two performances of *Guitar Trio*.⁸ Nonetheless, I uncovered documentation of a Chatham performance, almost certainly of *Guitar Trio*, at Max's Kansas City that predates the aforementioned Peter Nadin Gallery performance (*Figure 5.2*).

³ Chatham, 'G3 performance at The Beachland Ballroom', 2007,

<http://www.rhyschatham.net/G3ismylife/Cleveland.html>. Accessed 8 August 2015.

⁴ Chatham, email correspondence with the present author, 16 December 2015. The composer cannot remember exactly whose loft this was, or when the performance occurred. I estimate that it occurred between autumn 1978 and spring 1979.

⁵ Chatham, liner notes to *An Angel Moves Too Fast to See: Selected Works: 1971-1989*, 2002, 32.

⁶ See Anon., 'Programme notes for *Guitar Trio* at Centre d'Art Contemporain Brétigny, France on 19 June 2011', 2011, <http://www.cacbretigny.com/inhalt/pictures/darc/GuitarTrio1977communiqu.pdf>. Accessed 1 November 2015.

⁷ A recording of *Guitar Trio* from May 1979, possibly from the Nadin Gallery performance, appears on the compilation *Tellus # 1*, from *Tellus, The Audio Cassette Magazine*, 1983 (see *Recordings* in 'Discography').

⁸ Branca, Canal, and Chatham, in email correspondence with the present author in December 2015.

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 PLUS SPECIAL GUESTS
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FRI. APR. 13
 SUICIDE
 STUDENT TEACHERS
 BLOODLESS PHAROHS
 PLUS SPECIAL GUESTS
 WALTER STEDING

SAT. APR. 14
 VICTIMS
 PEROXIDE FEATURING LYN TODD
 LOST HATS
 PLUS SPECIAL GUESTS
 SCOUT HOUSE

SUN. APR. 15
 MUMPS
 CHRIS STAMEY & THE dB's
 JUMPERS
 PLUS SPECIAL GUESTS
 KIERAN LISCOE RHYTHM BAND

MOR. APR. 16
 BLESSED
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 PLUS SPECIAL GUESTS
 JOY & AVIS

TUES. APR. 17
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 BLUE HUMANS MARTIN REV
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THURS. APR. 19
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 SPEEDIES COMATEENS
 PLUS SPECIAL GUESTS
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FRI. APR. 20
 SENDERS
 NECESSARIES
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Figure 5.2: Max's Kansas City's 'Easter Festival' programme with Chatham performing on 21 April 1979 (courtesy of the *Village Voice*).

This appearance at Max's Kansas City was for the Easter Festival of 'New York Rock' on Saturday 21 April 1979, sharing a bill with Contortions, Glenn Branca, Jeffrey Lohn, and Model Citizens. Chatham recalls, 'it was my first time at Max's, I believe [and] the premier of Glenn's band of all electric guitars in special tunings with no vocals, which took everybody by surprise, especially me! A memorable evening on many levels'.⁹ Paul Tschinkel believes he may have filmed Chatham's ensemble on this occasion on 21 April 1979 (Figure 5.3).¹⁰ The footage shows the group performing *Guitar Trio* at Max's Kansas City,

⁹ Chatham, 'Facebook post', 2015, <https://www.facebook.com/rhys.chatham/posts/10207853216108774> Accessed 14 December 2015.

¹⁰ Paul Tschinkel, email correspondence with the present author on 24 November 2015.

without Branca.¹¹ Thus, this is likely to be of the April concert, and less likely another Max's Kansas City performance after Branca departed in mid-1979; this June concert, detailed below, is likely to have been Branca's last appearance with the ensemble, as he was intent on working on his own music henceforth.¹²



Figure 5.3: A *Guitar Trio* performance at Max's Kansas City in 1979 (left to right): Chatham, unidentified female musician, and Nina Canal (still taken by the author from Paul Tschinkel's footage, 1979).

A *Guitar Trio* performance at Max's Kansas City on Tuesday 26 June 1979 with Branca, David Rosenbloom, and Tiers is verified by reports from Lee Ranaldo (later of Sonic Youth) and John Rockwell.¹³ In his review, Rockwell identifies the approach of 'no wave' musicians who

[...] reduce rock to such minimalism that to some it might seem there's nothing there at all. But minimal painting can look simple, too, and at its best no-wave

¹¹ Paul Tschinkel, 'Rhys Chatham on Paul Tschinkel's Inner Tube', 2013, <https://www.youtube.com/watch?v=8Nt4FLvvNA0>. Accessed 15 December 2013.

¹² Nonetheless, Chatham would perform (*Instrumental*) for *Six Guitars* with Branca's ensemble at the Kitchen on 16 January 1980. The rivalry that seemed to occur between these two composers thereafter is beyond the focus of this thesis, and therefore, not a subject under consideration. For a historical overview of this, see Gann, 'Harps from Heaven' (1994), p. 46.

¹³ Rosenbloom played guitar with the rock group Chinese Puzzle.

rock focuses the issues of musical creation and perception in a remarkable way, lent added tension by the sonorities and extroverted associations of rock.¹⁴

Rockwell states this approach is indicative of the 'no-wavers' generally; however, I propose it depicts the music of *Guitar Trio*, rather than characterise a musically disparate scene. Additionally, he observes the extra-musical antics of Chatham, who 'seemed to be having considerable difficulty maintaining a vertical position'.¹⁵

Ranaldo, who attended the concert with drummer David Linton (see discussion of Linton in the next chapter), reports the concert was a significant moment in his own musical development. He recalls the exuberant performance and connects Chatham's music with both downtown, and the no wave musicians who 'reduced "rock" to its most elemental state – a primitive beat and an emotion. Rhythm. Volume'.¹⁶ How rock may have been distilled to its quintessence will be examined in the close reading to follow.

Ranaldo describes Chatham careering through the crowd, while playing this interpretation of *Guitar Trio* in an intense, unrestrained performance similar to a rock show (discussed in 'Performance' section of this chapter). He describes the 'conclusion' of the performance,

The crowd was stunned, and then broke into wild applause. [...] After the applause died down, Rhys announced with an exuberant slur in his voice that the band was going to perform "another number," [...] Rhys began drumming on the low string once more, and the group proceeded to careen right back into the exact same thing again, for another half-hour. THE SAME EXACT THING. Fantastic. At this point some of the 'less committed' in the audience ran for the exit.¹⁷

Thus, *Guitar Trio* developed from initial performances in gallery spaces and lofts, and thereafter, rock clubs.

¹⁴ John Rockwell, 'Rock: 2 of the No-Wave', *The New York Times*, 28 June 1979, 36.

¹⁵ Ibid.

¹⁶ Lee Ranaldo, in Sasha-Frere Jones, 'Sonic Youths', 2009, <http://www.newyorker.com/culture/sasha-frere-jones/sonic-youths>. Accessed 1 November 2014.

¹⁷ Ibid.

5.1.1 Composition

Guitar Trio is most frequently performed as a non-notated work for three electric guitars, electric bass, and a drum kit.¹⁸ A performance lasts around twenty minutes on average, although the work is often played twice, as 'Part One' (with hi-hat only), followed by a shorter version called 'Part Two' (with full drum kit).¹⁹ Nonetheless, Chatham decides how long each section will be, and thus the length of any given performance varies.

Guitar Trio uses informal methods associated with rock to prepare a performance, primarily, a verbal score and teaching by rote. This affords the players the freedom of not having to consult a score onstage, allowing for improvisatory techniques pertaining to the basic rhythmic motif and the eliciting of various overtone regions. In the past decade, the composer forwards written directions in advance to prepare players for a performance using musicians recruited locally.²⁰ Here, a pre-concert run though takes place facilitated by the players' familiarity with the extended techniques and form detailed in the directions.²¹

The music explores the characteristic timbre of amplified, sustained tones arising from relentless double-strumming of an eighth-note rhythm on multiple electric guitars using extended techniques. The tonality is created by primary and secondary drones, closely related to an E1 base frequency and its first seven overtones: E2, B2, E3, G#3, B3, D4, and E4 (*Figure 5.4*).²² Here, I apply La Monte Young's definitions: 'primary drones [...] sound continuously during an entire performance [and] secondary drones [...] are sustained for relatively long periods of time over the primary drone'.²³ In *Guitar Trio*, the composer determines the primary and the secondary drones, and players vary the

¹⁸ However, it has been performed using between one and one hundred electric guitarists also. Discussed hereafter in the thesis.

¹⁹ See 'Performances' section of the Bibliography of this thesis for links to *Guitar Trio* (Part One) and (Part Two), and also, the later rewrite as *G3* (Part 1) and (Part 2).

²⁰ This recent update of *Guitar Trio* is also known as *G3*.

²¹ In the last decade, the composer has provided written directions to prepare players for an incarnation of *Guitar Trio*, known as *G3*, that recruits local musicians for the performance.

²² Chatham transposes an equal-tempered D4 down an octave to D3 (note: the D4 in the harmonic series from an E1 would sound slightly flat in comparison), and he uses a G3 instead of a G#3 on the equal-tempered guitar.

²³ La Monte Young, in La Monte Young and Marian Zazeela, 'Notes on the Theatre of Eternal Music and The Tortoise, His Dreams and Journeys', 2000, <http://melafoundation.org/theatre.pdf> Accessed 21 September 2014, 14.

overtone structure of the given notes through improvisatory techniques in performance.

Pitch	Frequency (in Hertz)	Instrument, string, and fret position
E1	41.203hz	Bass guitar, E-string.
E2	82.407hz	Electric guitar, low-E string.
B2	123.47hz	Electric guitar, A-string (2 nd fret).
D3	146.83hz	Electric guitar, D-string.
E3	164.81hz	Electric guitar, D-string (2 nd fret).
G3	196.00hz	Electric guitar, G-string.
B3	246.94hz	Electric guitar, B-string.
E4	329.63hz	Electric guitar, high-E string.

Figure 5.4: Table showing the primary (E2) and secondary drones (all other pitches) in *Guitar Trio* with equivalent frequencies in Hertz (created by the author).

The capacity of the electric guitar to produce prominent overtones is a central feature of *Guitar Trio*, and thus, the harmonic series, and its correlate, tuning are crucial.²⁴ Initially, the music was performed with justly-tuned electric guitars – two with the B note fretted on the A-string tuned as a pure fifth – and another with all strings tuned to E in multiple octaves. Thereafter, the electric guitars used an ‘equal-tempered guitar tuning’ exclusively: E, A, D, G, B, E.²⁵ This produces sufficient overtones from the multiple equal-tempered guitars to match the intervals of the harmonic series using open-string voicings, with multiple perfect octaves and fifths (see discussion of tuning slippage below also).²⁶

An E2 primary drone is sounded throughout along with secondary drones closely derived from the partials of the implied E1 tonal centre (*Figure 5.5*). This material is ordered through one-, three-, and six-string sections, a sequence

²⁴ The terms ‘harmonics’, ‘upper partials’, and ‘overtones’ are used interchangeably.

²⁵ Chatham, ‘Drastic Classical Music for Electric Instruments’, programme notes, 17 April 1981, <http://archive.thekitchen.org/?p=477>. Accessed 10 October 2013.

²⁶ The tuning of octaves in both is identical, and the difference between the fifths is hardly perceptible to the human ear (a ‘pure’ justly-tuned fifth is 702 cents and an equal-tempered perfect fifth is 700 cents).

that is then repeated. The one-string section uses the guitar's low-E string to produce the primary drone around an E2 pitch (I.); the three-string sustains E2, B3, and E3 pitches upon the three lowest strings (II.); the six-string section sounds E2, B3, D3, G3, B3, and E4 pitches using all the available strings (III.); the bass guitar sounds an E1 pitch from its entry during the one-string section until the end of the six-string section.²⁷



Figure 5.5: Electric guitar drones used in *Guitar Trio*: I. one-string section, II. three-string section, III. six-string section (created by the author).

Guitarists strum these primary and secondary drones over certain frets (node points) on the guitar's neck to produce sets of resultant overtones specific to each position (*Figure 5.6*). Noticeable overtone variations are achieved over the 5th, 7th, 9th, and 15th frets, and to a lesser extent the 3rd, 12th, and 17th ones. Thus, the music uses the harmonic series to generate the overall tripartite structure, and these sustained tonal centres are given to variations in overtone structure from moment to moment.²⁸ Accordingly, Gregory Sandow comments that 'classical structures come right to the surface of the music; in fact they *become* the music – there are no tunes, no words, nothing but patterns'.²⁹ He adds that this synthesis reduces the sounds to a 'pure' state, 'more basic than almost any rock you'll hear'.³⁰

²⁷ The use of a rock rhythm section, bass and full drum-kit or hi-hat, became a regular feature of the work shortly after the aforementioned performance at Max's Kansas City in 1979.

²⁸ The perceptualization encouraged by these affective and immersive drones and overtones played for an extended period is discussed in the 'Listening' section of this chapter.

²⁹ Gregory Sandow, 'Classical Music for Loud Guitars', *Village Voice*, 1980, 62.

³⁰ *Ibid.*



Figure 5.6: *Guitar Trio* performance by Chatham and ensemble with guitarists strumming over various node points on the guitar's neck, Iowa City, United States, 2012 (Adrienne Behning).

Chatham explains how this strumming technique is applied in performance,

The way we get melodies in this piece is to play for 8, 16, 24, 32 or 64 beats (any multiple of 8, really) directly over each of these respective frets, thereby shaping the sonority of the composite waveform of the frequencies that your guitar is generating in relation to the other guitars of the ensemble.³¹

Here, 'melodies' (termed 'ghost melodies' or 'overtone melodies' also) refers to the interaction of partials and sustained primary and secondary tones perceived acoustically and psychoacoustically by a listener. The ritualistic minimalism of downtown music (particularly, Charlemagne Palestine) is distilled in this approach to varying overtones through extended techniques on guitar using relentless strumming (evocative of Johnny Ramone's double-strummed attack). The rhythmic interplay of the eighth-note drones and arrhythmic overtones created by this method is also notable. For instance, Branca establishes how

³¹ Chatham, *Guitar Trio*, performance directions, undated.

'the tones can begin bouncing so frenetically that they will seem to have no relation to the base rhythm' in the context of a live performance.³²

The amplitude of the upper partials is varied through microintonation as well, pitch frequencies less than a quarter-tone generated by the unique attack, delay, sustain, release (ADSR) of a guitarist's playing technique.³³ Differences in intonation between the ensemble's instruments and slippage in the guitars' tuning provide additional microtonal variations also. Thus, in addition to an individual musician's choice of node points, their guitar and characteristic playing style will shape the sound.³⁴ Andrew Burnes, a guitarist who performs Chatham's music, details that the rehearsal process partially consists of 'trying to find all the tonalities of a guitar. You're responsible for exploring those aspects, how where you drag the pick across the strings will affect what kind of overtones are developed'.³⁵

Amplification and equalisation of the guitars' signal boosts the audibility of the upper partials and attendant acoustic phenomena too. By increasing the volume of the guitars' sound, a wider range of frequencies become audible for a listener: the Fletcher-Munson Curve details how an increase in volume above 90dB increases the audibility of frequencies to facilitate the perception of the 500-15,000 hertz range (*Figure 5.7*).³⁶ The amplification brings forth the hidden components of sound in *Guitar Trio*, bringing out the upper partials of the high-volume drones. This generates loud immersive music that can affect a listener through the forceful sound as well (discussed in 'Performance' and 'Listening' sections of this chapter). In addition, the guitars' signal is equalised to accentuate the mid-range – around 1,200 hertz – by adjusting the 'mid' and 'treble' settings on the amplifiers. Another method to accentuate the overtones

³² Glenn Branca, 'Rhys Chatham', *New York Rocker*, November 1979, 15.

³³ Similarly, slight permutations in bowing technique in Tony Conrad and John Cale's playing in *The Theatre of Eternal Music* produced audible variations in the timbre of the group's composite continuous sound forms.

³⁴ A musician's playing style includes their execution of rhythmic variations and accents (discussed in the next section of this chapter).

³⁵ Andrew Burnes, in Kaliss 'Other Minds Lifts the Veil on Rhys Chatham's *Grand Secret*', 2014.

³⁶ As a consequence of using these high volume levels regularly in performances of *Guitar Trio* (and his non-notated music for electric guitar) between 1977 and 1982, Chatham developed hearing problems; nonetheless, he continues to amplify the music in performances to boost the audibility of the frequency spectrum and in order to hear the music adequately. Phill Niblock and La Monte Young also continue to use high volume to explore timbres in their amplified music.

is to use the guitar's bridge pick-up to give a stronger mid- and high-range emphasis.³⁷

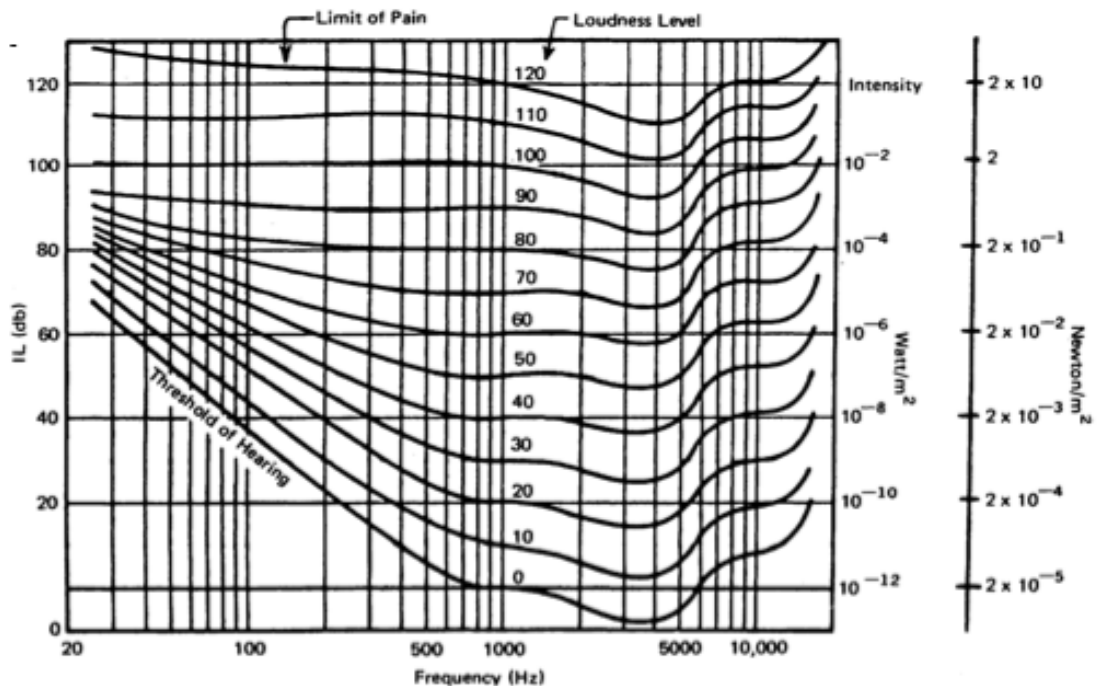


Figure 5.7: The Fletcher-Munson Curve (1933).³⁸

Layering multiple, amplified guitars increases the audibility of the acoustic phenomena (see discussion of this approach in Terry Riley and La Monte Young's music in Part One of this thesis). David Daniell points out that the generation of higher harmonics through nodal playing 'increases exponentially when amplified en masse [...] a really profound audible effect'.³⁹ This layering reinforces the resonant frequencies of the primary and secondary drones, and sustains a dense composite waveform.

The process is assisted by sympathetic vibration occurring between these harmonically-related frequencies, creating abundant acoustic and psychoacoustic phenomena (primarily, overtone melodies, and sum and difference tones) in the process. Correspondingly, I noted the strings of my

³⁷ Chatham wants a bright, clean tone from the guitars, preferring Fender Telecasters with single-coil pick-ups, rather than models with humbuckers, such as Gibson guitars, as these guitars often lack clarity in the mid- and upper-range of the frequency spectrum.

³⁸ Reproduced in Tae Hong Park, *Introduction to Digital Signal Processing: Computer Musically Speaking*, Singapore: World Scientific, 2009, 10.

³⁹ David Daniell, in rehearsal for *A Secret Rose* at Birmingham Conservatoire on 5 June 2014. Transcribed by the present author for use in this thesis. Note: Daniell is Chatham's main collaborator in live performance and recordings as guitarist and section leader over the past decade (2006-2016).

guitar vibrating strikingly – while being strummed and when not – during a performance of *Guitar Trio* due to sympathetic vibration generated by the multiple amplified guitars.⁴⁰ This approach combines the perceptual listening focus encouraged by the resonant, extended duration compositions of the early drone-minimalism and electronic music (for example, Amacher’s concept of ‘the listener’s music/third ear music’ detailed in Chapter Two of this thesis) with the amplified, visceral sounds of New York rock.

Guitar Trio used amplification and extended techniques to accentuate and vary the overtone content using a minimalist style of composition: a limited set of pitch frequencies, a steady pulse, layering, repetition, and stasis, recontextualised in a synthesis with elements of underground rock. Here, Chatham combines points of congruence between minimalist compositional strategies and underground rock: a steady rhythmic pulse, repetition of pitch frequencies from a limited palette, and the use of loud amplification. This aligns with Timothy A. Johnson’s identification of minimalist music as characterised by ‘long, static passages, characterised by consonance and built from repeated patterns and pulses’.⁴² Chatham reconfigures this minimalist style of composition – a bright tone, a continuous formal structure, a lack of extended melodic lines, and repetitive rhythmic patterns – with aesthetics and practices derived from underground rock to create a peculiar form of post-minimalism.

5.1.2 Performance

Chatham’s stated premise with this music was ‘to take a “moment” out of popular music and proceed to extend and reshape the material until it achieved new musical meaning’.⁴³ The ensemble uses informal methods associated with rock to perform the music. Chatham leads a performance with his guitar playing from centre-stage, a position from which he can cue the musicians. Visual cues are used, such as eye contact – followed by a marked nod of the head – to cue

⁴⁰ This performance of *Guitar Trio* using one hundred electric guitars was as Movement 5 of *A Secret Rose* in Birmingham, England in 2014. This sympathetic vibration of guitar strings has occurred on numerous occasions when playing music (my own compositions, and Chatham’s) in configurations with three or four guitars using sufficient amplification of resonant material.

⁴² Timothy A. Johnson, ‘Minimalism: Aesthetic, Style, or Technique?’, 1994, 750.

⁴³ Chatham, liner notes for Chatham, *Factor X*, 1983.

in each guitarist's entry, to signal an upcoming transition to a new section, or to indicate a drum solo. At times, this is combined with a vocal cue given by Chatham whilst facing the ensemble; for example, a "1-2-3-4-, 1!" is used to signal the final chord of the six-string section.

Rock rhythms are improvised in the drum parts, as well as the guitars. The drummer improvises percussion patterns within the parameters set by the composer, and as the music moves through each of the three sections, the 4/4 pulse becomes more rhythmically complex – the guitars also increase their rhythmic intensity. This eighth-note pulse is maintained for the duration of the work, a steady beat that is articulated clearly throughout, to which a listener may entrain.

Initially, the hi-hat plays quarter-note beats then gradually introduces smaller sub-divisions, including drum-fills, before taking a thirty-two bar 'solo' toward the end of the six-string section.⁴⁴ The rhythm section of the ensembles regularly featured bass and improvised drum parts (hi-hat or full kit) from 1979. Moreover, the use of rock rhythms in bass, drum, and guitar parts created improvisatory variations on the minimalist musical material.

The first guitar (Chatham) typically enters after the third beat of the drummer's four-beat count-in (*Figure 5.8*). Along with the guitar's iterated eighth-note rhythm, the percussion provides a steady pulse that anchors the tonal centre, and contrasts with the fluctuating and rhythmically irregular overtone content. The remaining guitarists and bassist are then cued in, one at a time, during this one-string section.

⁴⁴ The composer requests the solo be played in the style of the jazz drummer Max Roach, in the performance directions.

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1-string. Fingering:

1-string

f

3X

D.S. with repeat 3X.

Figure 5.8: Transcription of *Guitar Trio* motif in stick notation from *A Secret Rose*, Movement 5.⁴⁵

Guitarists use a rock improvisatory style to play the rhythm of the initial motif, combined concurrently with the extended technique of playing over certain frets to alter the morphology of the given note/s used in each section.⁴⁶ Through each guitarist's interpretation in performance, they will shape the rhythmic intensity and the composite sound wave of the ensemble. This approach synthesises rock playing techniques, rhythms, and sounds to vary the minimal musical material.⁴⁷

This motif combines the drones and overtones of non-patterned minimalism, with an eighth-note pulse characteristic of patterned minimalism and punk rock. It merges harmonic series explorations (akin to Tony Conrad, Charlemagne Palestine, or The Theatre of Eternal Music), a patterned minimalist pulse (such as Terry Riley's *In C* which uses a short, repeated eighth-note rhythmic motif), and double-strummed guitar figures (the Ramones). Chatham's music is a result of 'consciously cross-breeding microtonal drones, overtone music, and the incipient punk of the Ramones'.⁴⁸ Moreover, *Guitar Trio* features relentlessly double-strummed loud electric guitars, a steady pulse on drums (and in some versions, a backbeat), and simple bass lines, merging a primordial rock sound – distilled from the Ramones and punk – with downtown composition. Gregory Sandow affirms that this approach creates a 'fusion of rock and new music', that

⁴⁵ This notation is used by Chatham for an interpretation of *Guitar Trio* for guitar orchestra. This will be discussed, as Movement 5 of *A Secret Rose*, in Chapter Eight of the thesis also.

⁴⁶ Guitarists vary the low E drone, using eighth-note and sixteenth-note rhythm patterns during the one-string section.

⁴⁷ This open-stringed rhythmic drone would also appear in Chatham's other compositions: *Guitar Solo* (1979), *Vertige* (1979), *Cadenza* (1981), *Drastic Classicism* (1981), *An Angel Moves Too Fast to See* (1989), *G3* (2006), *A Secret Rose* (2006), *G100* (2008), and *Is There Life After Guitar Trio?* (2009).

⁴⁸ Fink, '(Post-)minimalisms 1970-2000: the search for a new mainstream', 2004, 548.

is 'elegant' and 'uncompromising', 'severe and classical' and 'brash and punky'.⁴⁹

As the performance unfolds, each musician enters to add a new layer to the music, and the density of sound, rhythmic complexity, and volume increases. Then, Chatham strums an E power chord (given previously in *Figure 5.5*, II.) to signal the one-string section is concluding; on his cue to begin the three-string section, all guitarists simultaneously switch to play an E power chord using a gradual *crescendo* to loud volume over sixteen bars.⁵⁰ The rhythmic and timbral improvisation on the initial motif continues over extended durations, now including the secondary drones.

This three-string section sustains the primary (E2) and secondary drones (B2, E3) through the power chord – a sound strongly associated with rock, and the Ramones. This approach synthesises the harmonic series, improvisation, and minimalist techniques (repetition, stasis, a limited palette, etc.) with rock performance energy: its instrumental sound, rhythms, and performance approaches (style and techniques). In addition to the use of sounds and gestures commonplace in rock, Chatham's onstage image: his persona – and on occasion, his attire (for example, a leather coat and sunglasses) – drew upon rock music (see *Figure 5.9*).

⁴⁹ Sandow, 'Classical Music for Loud Guitars', *Village Voice*, 1980, 62.

⁵⁰ This power chord drone echoes the tonal palette of minimalist music also; for example, the sustained droning fifth characteristic of La Monte Young's *Composition #7 1960* (where a B3 and F#4 are 'to be held for a long time').

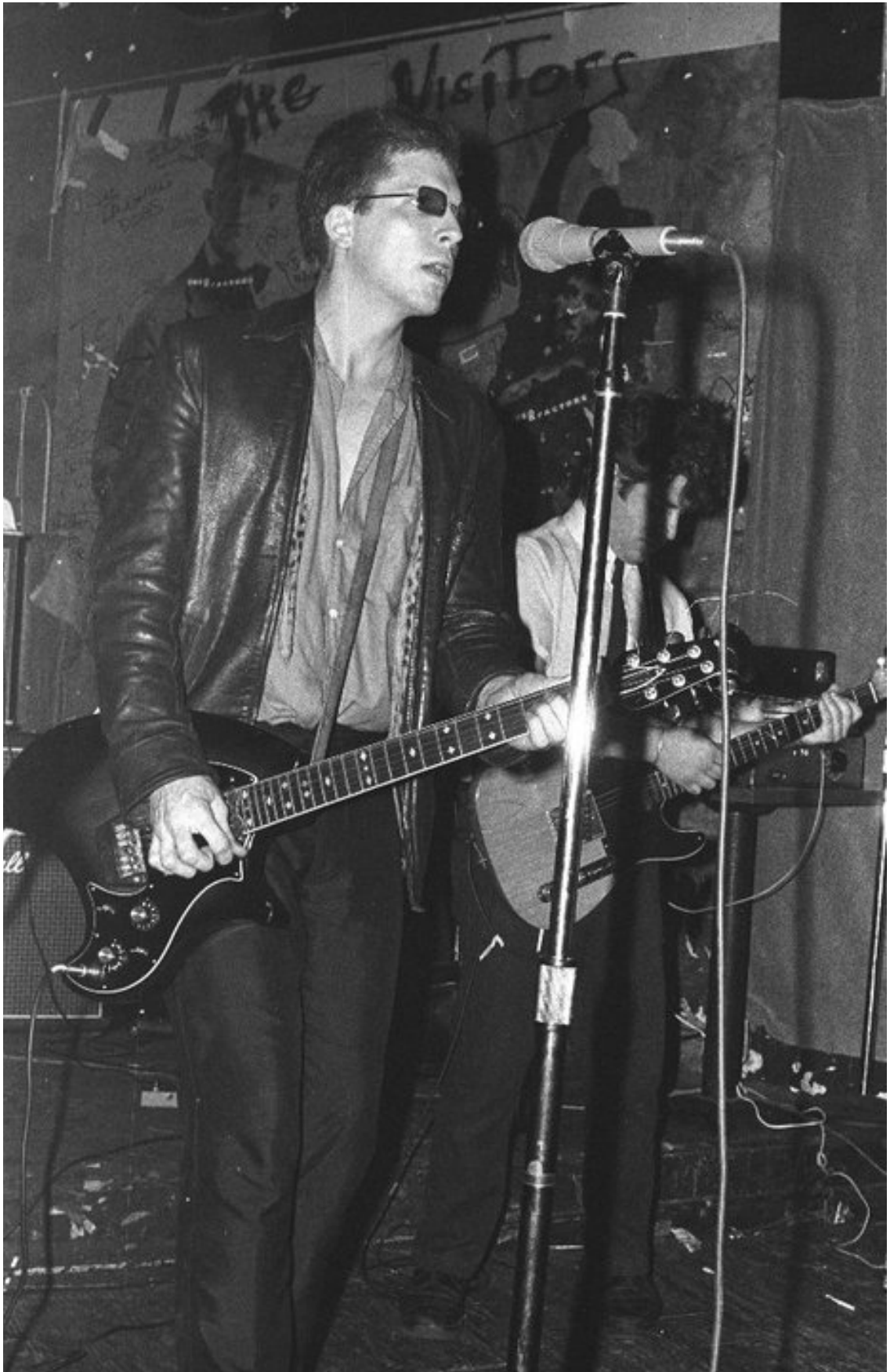


Figure 5.9: *Guitar Trio* performance at CBGB with Chatham and Robert Longo, around 1980 (uncredited, courtesy of the composer).

To lead the ensemble into the six-string section, Chatham plays an Em7 chord; thereafter, all remaining guitarists switch to play the Em7, starting a sixteen-bar *crescendo* to full volume. This section, most obviously, amalgamates an energetic and unrestrained rock style of performance in this music. Lee Ranaldo provides an account of this Dionysian aspect – ecstatic, emotive, and uninhibited – from Max’s Kansas City in 1979,

As the music reached full-tilt, he started weaving into the crowd, heading down the narrow center aisle that ran between the rows of tables leading up to the stage. Beer glasses were rattling from the decibels. As Rhys walked, he began swinging his guitar absentmindedly, hitting people in the head and knocking over drinks and stuff. People scrambled to get out of his way, but he seemed so absorbed in the music that he didn’t notice the commotion. He slowly made it back up to the stage.⁵¹

Ranaldo’s account emphasises the Dionysian nature of Chatham’s performance, and how it serves to reinforce the intensity of the music.

Dionysian is understood as ‘relating to the sensual, spontaneous, and emotional aspects of human nature’,⁵² and as an aspect of art, it is often contrasted with the Apollonian, as ‘the rational, ordered, and self-disciplined aspects of human nature’.⁵³ Nietzsche differentiated these two concepts as apparently oppositional yet identified how their presences co-exist in life and art in *The Birth of Tragedy*.⁵⁴ The Dionysian represents a vital energy or force manifest in the bodily and the orgiastic – as a person’s connection with their natural instincts – that may serve to break down barriers between one’s self and others, and corresponds with a communal rite such as the above *Guitar Trio* performance. The Apollonian corresponds to the principle of individuation that manifests as a desire to control and order the dynamic Dionysian nature in life and works of art, as evident in Chatham’s role as composer of this, and other works.

In performances of *Guitar Trio*, this Dionysian drive is synthesised with the Apollonian elements of the music’s composition. Roger C. Miller, of the rock

⁵¹ Ranaldo, in Sasha-Frere Jones, ‘Sonic Youths’, 2009. Ranaldo also claims that Chatham later told him he was intoxicated on ‘Quaaludes and speed’ for this performance (Ibid.)

⁵² ‘Dionysiac’, OED, <https://en.oxforddictionaries.com/definition/dionysiac>. Accessed 26 June 2017.

⁵³ ‘Apollonian’, OED, <https://en.oxforddictionaries.com/definition/apollonian>. Accessed 26 June 2017.

⁵⁴ Friedrich Nietzsche (translated by Douglas Smith), *The Birth of Tragedy*. Oxford: Oxford University Press, 2000. Douglas Smith’s introduction clarifies Nietzsche’s concept of the Dionysian and Apollonian and their fusion, vvi-xxxvi.

group, Mission of Burma, suggests that ‘the pissed-off high-energy of punk helped drive its internal integrity. *Guitar Trio* helped strip things back to square one, like the Ramones before him, or Steve Reich’s 1968 *Pendulum Music*’.⁵⁵ The dynamic generated by a forceful rock performance style is explicit in Edward Rothstein’s account also; he describes how acoustic phenomena derive from aggressive instrumental techniques, and amplified volume,

A dangerously decibeled exploration of upper overtones emitted in furious strumming across fretboards. As violent articulations shifted, the cacophonous rock sound became background for a highpitched overtone line that sounded with a seemingly independent life, suggesting soft gentility or irritating shrillness.⁵⁶

In the six-string section, these ‘patterned pulsings of ear-splittingly amplified vibrations’ are generated in performance by harnessing rock energy to improvisatory techniques that vary the subdivided rhythmic pulse, and increase overtone content and volume.⁵⁷

Here, rhythmic activity is intensified with increasing improvised subdivisions including thirty-second-note and sixty-fourth-note variations, and the inclusion of a thirty-two bar drum solo cued by Chatham toward the end of the section. These subdivisions require *tremolando* from the guitarists, a technique that vibrates the strings at great volume and intensity with rapid alternation of up-and-down strokes, producing prominent overtones. This section is the most intense due to the increase in rhythmic intensity, morphological complexity and density, and sheer volume. This sustained and unmeasured *tremolando* is a significant feature of Chatham’s music for electric guitar, creating a significant density and volume of sound, with the potential for generating acoustic and psychoacoustic phenomena, and frisson for a listener.

The Sonic Visualiser program provides a spectrographic representation of the changes in the composite waveform throughout, with the vertical bar on the left indicating pitch frequency in hertz and the horizontal indicating the sound wave generated by a performance of *Guitar Trio*. Here, it is possible to view the

⁵⁵ Roger C. Miller, ‘Roger C. Miller (Mission of Burma) Talks Rhys Chatham’s *Harmonie du soir*’, 2014, <http://music.thetalkhouse.com/talks/roger-c-miller-talks-rhys-chathams-harmonie-du-soir/>. Accessed 20 June 2014.

⁵⁶ Edward Rothstein, ‘Music: Works by Chatham at The Kitchen’ 1981, <http://www.nytimes.com/1981/04/20/arts/music-works-by-chatham-at-the-kitchen.html>. Accessed 25 April 2015.

⁵⁷ *Ibid.*

primary and secondary drones and attendant overtones accumulate to create an exponentially complex sound-space as the ensemble moves through the one, three- and six-string sections (discernible by the sudden increases in frequency range shown below), with a greater intensity of upper partial activity in the six-string section, before the subsequent transition back into the one-string section (*Figure 5.10*).

The colours of the spectrograph represent the most prominent frequencies in descending order: yellow, orange, red, dark-blue, and blue (black is very little or no sound at that frequency); for example, it shows the primary drone playing throughout (E2 at 82.407hz), along with prominent secondary drones and overtones all in bright yellow (B3 at 123.47hz, and E3 at 161.82hz, etc.), with other overtones appearing as red horizontal lines throughout, and coming through as yellow lines during the six-string section (approximately 200-3,500 hertz).

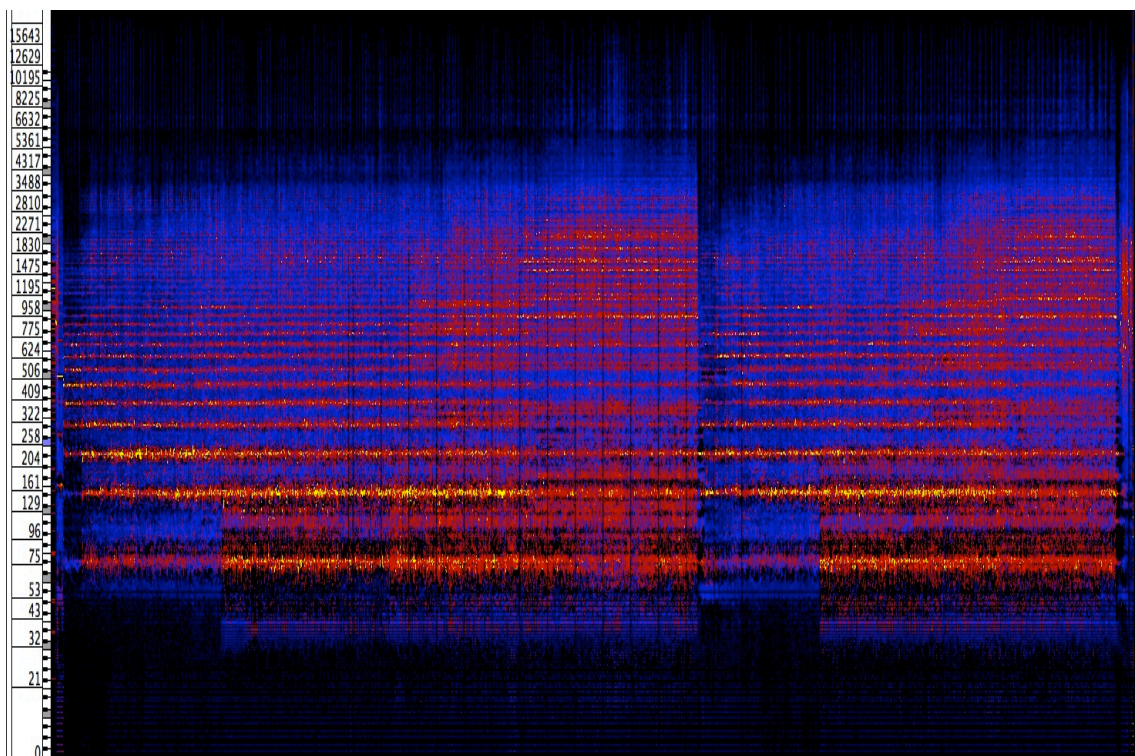


Figure 5.10: Sonic Visualiser reading of frequencies generated by a *Guitar Trio* performance from 0'00" to 30'23" (created by the author).⁵⁸

The upper partials are most prominent in the six-string section when the density, rhythmic intensity, and volume peak (for example, from 13:00-18:04 and 26:25-

⁵⁸ Taken from the live recording 'Chicago pt.1' from Chatham, *Guitar Trio Is My Life!*, Table of the Elements, TOE-CD-813, 2008.

29:54 on recording of the performance analysed in *Sonic Visualiser* above). When this music is played with extended techniques using node points and *tremolando*, and sufficient volume over extended durations, the proliferation of resonant material and substantial upper partial activity is notable. As outlined in this chapter, the accounts of Branca, Ranaldo, and Rothstein highlight the unpredictable activity of the upper partials; this sense of paradox perpetuated by the irregular rhythmic movement of the overtone melodies from the upper partials playing against the improvised rhythms of the drones, may result in trance-inducing phenomena (see, next section of this chapter). This six-string section concludes with a ringing Em7 chord cued by Chatham, before the one-, three-, and six-string sections are played again in sequence, with each respective section shorter in length.

Additionally, Robert Longo's *Pictures for Music* (1979) is frequently projected during performances of *Guitar Trio*. This minimal 'film' comprises of six black and white still photographs that gradually transition via fade-outs after approximately three minutes (*Figure 5.11*).⁵⁹



Figure 5.11: *Pictures For Music* (1979) by Robert Longo, (one of six).

⁵⁹ After Branca left Chatham's ensemble, Longo joined as a guitarist and created this visual work.

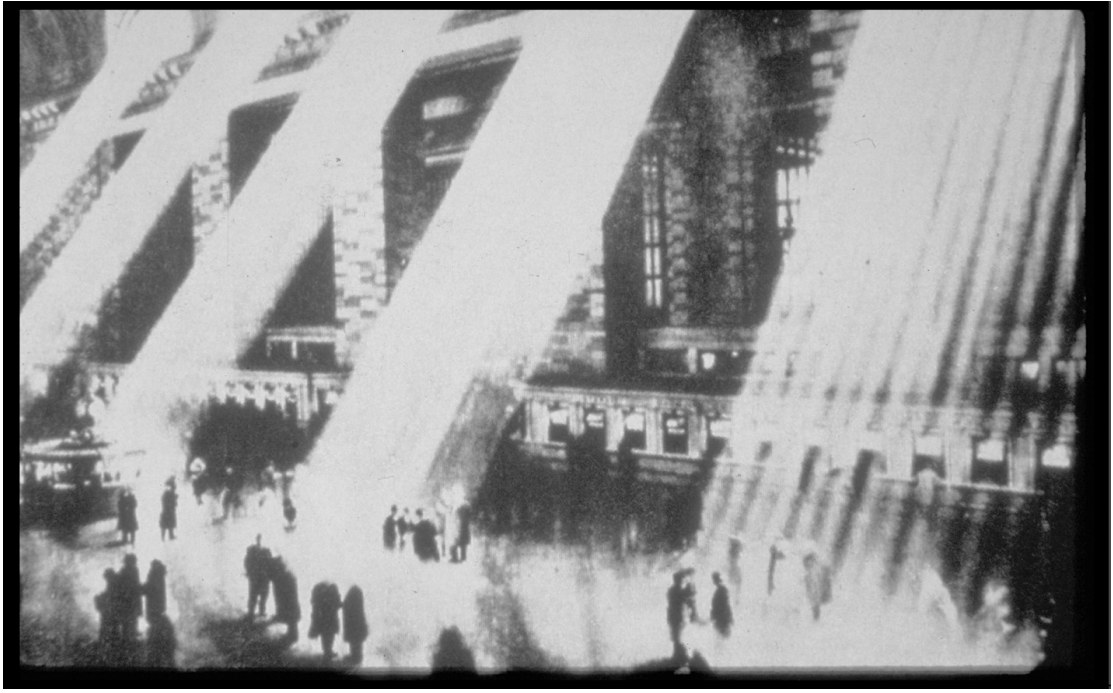


Figure 5.11 (continued): *Pictures For Music* (1979) by Robert Longo (two of six).



Figure 5.11 (continued): *Pictures For Music* (1979) by Robert Longo (three of six).



Figure 5.11 (continued): *Pictures For Music* (1979) by Robert Longo (four of six).



Figure 5.11 (continued): *Pictures For Music* (1979) by Robert Longo (five of six).



Figure 5.11 (continued): *Pictures For Music* (1979) by Robert Longo (six of six).

Some of these found images are evocative of the New York metropolis: a monumental skyscraper; light pouring into a large train station; shadowy figures framed by alleyways; a plane flying low past a lighthouse and a shoreline; a boy with his eyes closed and a woman close beside him (his mother, perhaps); a boy being held in someone's arms, with horses being led in the background; however, as with the music they accompany, they are quite open-ended in their meaning, and may elicit individual and personal responses. Certainly, both Chatham's *Guitar Trio* and Longo's visual art play off an ambiguity between art and popular forms of culture, elements that they skilfully combined in their respective work.⁶⁰

⁶⁰ For example, Longo used a still image from Rainer Werner Fassbinder's film *The American Soldier* (1970) to create a small relief sculpture, evident of his filtering mass culture material – comics, film, newspapers, and television – through his own training in the fine arts.

Douglas Eklund notes:

The fact that the composer could perform *Guitar Trio* in both classical and rock settings and that the two audiences would take different things from it participates in the same love of ambiguity that animates [Longo's] *American Soldier*, which is frozen between the sculpture and the two-dimensional image, movies and art, dancing and dying.⁶¹

Chatham and Longo would discuss the similarities in their work during this period. Both were combining elements from art and popular culture in their work, using the rigours of their respective artistic training to transform material. I argue that this was a two-way process that transformed these elements through a musical synthesis. Indeed Chatham would theorise this distinctly postmodern activity, in terms of Hal Foster's concept of 'recoding', whereby material from popular culture is transformed by the artist's work, in the manner Chatham 'recoded' rock with art music structures and techniques in *Guitar Trio*; as I will endeavour to show thereafter, avant-garde music was also recoded with underground rock attitude, energy, instruments, and sounds in the same process.⁶²

The distillation of the energy and sounds of underground rock is notable in *Guitar Trio*. Glenn Branca proposes that 'although this music can be seen as innovative or modern, the final effect is still that of vicious, uncompromising, hard rock. This is what [Lou Reed's] *Metal Machine Music* should have sounded like'.⁶³ However, this music does not conform to minimalism or rock alone, and instead synthesises their key components into an idiosyncratic form of post-minimalism.

Another rock critic suggests that the minimalist principles are subordinated to certain rock performance elements – instrumentation, playing techniques, and gesture – in *Guitar Trio*:

The originality of *Guitar Trio* rests upon the transposition of strictly minimalist principles – repetition, playing with the overtones – into the field of rock, and their subordination to its instrumentation, playing techniques and gesture. *Guitar*

⁶¹ Douglas Eklund, *The Pictures Generation: 1974-1984* (New York: Metropolitan Museum of Art, 2009), 168.

⁶² See Chatham, 'Composer's Notebook 1990: Toward a Musical Agenda for the Nineties', 1994. In the essay, the composer formulated his understanding of postmodernism in downtown composition in terms of 'composers [who] commenced the project of re-coding their music', i.e., by manipulating the signification of popular material to transform its meaning through new works of art.

⁶³ Branca, 'Rhys Chatham', *New York Rocker*, 1979, 15.

Trio isn't therefore one of those pieces that only hardened fans of contemporary music can appreciate. It does not rest so much upon a theoretical interest as it does upon the visceral impact produced by a group of genuine rockers playing very, very loud and very, very fast – the performance ends up with an orgy of tremolos, as well as a certain amount of broken guitar strings.⁶⁴

I understand this statement is expressing the view that this is not early minimalism ('strictly minimalist principles'), and with which I agree, and rather it comprises a significant element of rock aesthetics and practices, especially, an affectivity and resonance generated through a Dionysian performance style, repetition, and volume (*Figure 5.12*). However, I have shown that the minimalist principles are not subordinate to rock music performance techniques or vice versa, rather that the sound, performance energy, and potential psychophysiological import of rock music are synthesised with an approach coming out of downtown composition.



Figure 5.12: Rock elements (energy, gestures, instruments) evident in a live performance of *Guitar Trio* by Chatham (centre, kneeling) and Boyd's Elektro Gitarren Orchester, Hamburg, Germany on 20 January 2011 (uncredited <http://bit.ly/2IJ8oqG>. Accessed 28 December 2016).

⁶⁴Sophie Pécaud, 'Rhys Chatham at the Soy Festival', 2008, <http://www.visitation-rites.com/2008/10/rhys-chatham-at-the-soy-festival-nantes-%E2%80%9Cnothing-but-a-party%E2%80%A6-and-nothing-but-rock%E2%80%9D/>. Accessed 11 May 2015.

Despite this amalgamation, *Guitar Trio* did not conform to rock's mainstream aesthetics and practices in the late 1970s. While rock groups had explored avant-garde and minimalist perspectives in rock music previously (Faust, Neu!, Soft Machine, The Velvet Underground, etc.), Chatham emphasised the resonant, textural, and timbral qualities of multiple electric guitars over long durations and their potential for generating strong musical experiences through acoustics, psychoacoustics, entrainment, and frisson.

5.1.3 Listening

In this reading of listening in *Guitar Trio*, I focus upon acoustics and psychoacoustics, entrainment, and frisson. I examine how these phenomena, frequently ascribed to a listener's experiences may occur (primarily, in a live performance of this music).⁶⁵ While an individual person may not experience all of these phenomena, I have identified and analysed these recurring characteristics to present a critical interpretation of the listening modes privileged by the music. I use these insights to detail Chatham's aesthetic, and connect it with the composition and performance of *Guitar Trio*.

Lee Ranaldo gives an account of a *Guitar Trio* performance at Max's Kansas City in June 1979, providing significant details of the phenomena generated by the compositional and performance techniques, outlined previously,⁶⁶

Something was going on inside the music that I couldn't put my finger on. Although the players seemed to be simply down-stroking with flat picks across the length of the strings, amazing things were happening in the sound field above our heads. Overtones danced all around the notes, getting more animated, turning into first Gamelan orchestras, then later a choir of voices, and finally a complete maelstrom of crushing sonic complexity, ping-ponging over the minimalist low notes of the rocking chord [...] I had an ecstatic experience that night, listening to this strange music and watching these images. I say strange because on the one hand it was upbeat, really rocking out and familiar.

⁶⁵ As noted in the 'Introduction' to this thesis, recordings do not replicate the phenomena from live performances to the same degree; nonetheless, listening to a recording through speakers at sufficient volume (circa. 90-120 decibels) should provide an indication of how these experiences occur.

⁶⁶ This description is suggestive of the musical activity during the six-string section, generated by *tremolando* playing, and increased rhythmic subdivisions.

But it had this other quality to it as well; something else was going on there. This was 'Art' too.⁶⁷

This account affirms that the synthesis of art and rock music in *Guitar Trio* can elicit an ecstatic experience encompassing acoustics ('overtones'), psychoacoustics ('Gamelan orchestras', 'choirs'), and an almost overwhelming density and force of sound ('maelstrom of crushing sonic complexity').⁶⁸ I will focus on the role of acoustics and psychoacoustics for now, the role of repetition and volume in catalysing ecstatic states through entrainment and frisson is discussed later in this chapter.

How exactly might a listener's perceptual engagement be elicited through immersion in these high-volume, slowly-changing timbres? Kim Gordon observes that in Chatham's non-notated music for electric guitars, 'the overtones set up the psychoacoustic phenomena'.⁶⁹ Glenn Branca affirms how amplification, layering, and resonance calibrate a situation where 'the ear is being absolutely overloaded with sound. You start hearing things that aren't there. The mind starts to invent what's happening'.⁷⁰ These statements highlight that resonant acoustic phenomena catalyse psychoacoustic phenomena; therefore, it is possible to understand how this non-representational and non-dialectic music invites a listener to confer subjective meaning thereon. As noted, Chatham terms this facet of musical experience 'the listener's story', an approach that can be traced to Cage, and the perceptual focus of Amacher, Palestine, and Radigue's music.⁷¹

When I performed an interpretation of *Guitar Trio* along with Chatham and a large guitar ensemble, its prominent overtone content generated significant acoustic and psychoacoustic phenomena.⁷² This included perceptions of melodic patterns through intervallic listening within the composite sound of the ensemble ('ghost' or 'overtone' melodies), and sum and difference tones. The latter 'aural illusions' came about by listening to the interaction and

⁶⁷ Ranaldo, in Sasha Frere-Jones, 'Sonic Youths', 2009.

⁶⁸ Ranaldo's experience echoes Subotnick's desire to evoke the 'ecstatic moment' where music is inseparable from one's sensory experience, and Coons' account of the mind-blowing potency of the Electric Ear multi-media performances (see Chapter Two of this thesis).

⁶⁹ Gordon, 'Trash Drugs and Male Bonding' (1980), 31.

⁷⁰ Branca, in Gann, 'Harps from Heaven' (1994), 47.

⁷¹ Chatham, in interview with the present author, 2013.

⁷² I performed *Guitar Trio* arranged for one hundred electric guitars, bass, and drums – as Movement 5 of *A Secret Rose* at Birmingham Town Hall, England on 7 June 2014.

interpenetration of the primary and secondary drones and their overtones. What is more I found that these phenomena activated a kind of trance process that altered my mode of consciousness.

For instance, in perceiving overtones derived from the harmonic series within the composite sound, to the extent that the primary drones ‘disappeared’, the self-conscious part of my mind became confused, momentarily. This confusion of reflexivity was accompanied by feelings of expansiveness – a broad awareness of my environment, the music, and the musicians, marked by unselfconsciousness – and of timelessness, or ‘floating time’. These techniques draw upon a listener’s ideosensory awareness by bringing attention to their own perceptions in a manner akin to a hypnotic trance (see discussion on Tony Conrad and ideosensory awareness in Chapter Three). On reflection, the amplified slowly-changing timbres of this music caused a psychophysiological affect, a form of ergotropic trance (from the top down), connected with activation of quiescent system of the brain primarily, but also including the autonomic nervous system. The entrancing potential of this music resulted in an experience evoking acoustic and psychoacoustics, via the consciousness altering potential of perceptualization thus, activating trance processes.⁷⁴

The emphasis upon listening to dense, layered timbres in *Guitar Trio* privileges perceptualization. This impulse invites acoustic and psychoacoustic phenomena to manifest via listening experiences that engage subconscious, or ‘unconscious’, processing of sound to a notable degree, by playing upon the elusive, paradoxical, and subjective nature of timbre (see discussion of perceptualization and timbre in Part One of this thesis).⁷⁵ Rebecca Leydon outlines how timbre is created by a listener’s experience of subjective auditory processing,

The various acoustic components of a given timbre, each with a certain frequency, amplitude, onset, and duration, must travel to the auditory cortex to be sorted, weighed, and assembled into an apparently unitary sensation: the timbral percept. To some degree, the perceptualizing impulse affects all aspects

⁷⁴ The steady repetition of frequencies and rhythms, and the volume of the music played over extended durations were affective too (see discussion of entrainment and frisson, hereafter).

⁷⁵ I use the term ‘subconscious’ in place of ‘unconscious’ to signify activity occurring beneath self-conscious awareness.

of auditory experience, but it is timbre that we manipulate most thoroughly, and at the same time most unconsciously.⁷⁶

This process of perceptualization may result in lapses of self-consciousness, moments where semantics are bypassed, and sentience encouraged through timbre's trance-inducing capacities.

Correspondingly, D. Robert DeChaine establishes that certain artistic practices subvert the symbolic order through a process 'endowed with a proclivity for escaping representation',

The elusive travel beyond discursive meaning, beyond the rules and convention of a musical system, a signifying of music's unsignifiable: the poetic language of music is the uncharted territory of musical experience. This is how music feels.⁷⁷

Next, I will explore the possible affect of the high volume energy and repetitive rhythms over extended durations that characterise *Guitar Trio*, specifically, focusing upon entrainment and frisson.

Judith Becker establishes that music activating 'trance' processes is frequently 'rhythmically vibrant and somewhat loud, or at least with a piercing tone quality'.⁷⁸ The vigorously rhythmic sounds, high volume, and immersive tones of *Guitar Trio* have a noted potential to alter consciousness, as Sophie Pécaud records:

For Rhys Chatham, repeating the same chord ceaselessly at an obscenely loud volume, with the support of a single drummer who penetrates and structures the general waveform of the sound from the inside, is also a means of creating among his audience – and incidentally, among his musicians – a kind of shamanic state of trance.⁷⁹

Eugene G. D'Aquili and Andrew B. Newberg highlight how repetitive and rhythmic stimuli may induce trance by synchronising 'affective, perceptual-cognitive, and motor processes within the central nervous system'.⁸⁰ Thus, this dense, timbral sound evokes subconscious processing – and challenges the

⁷⁶ Leydon, 'Clean as a Whistle: Timbral Trajectories and the Modern Musical Sublime', 2012.

⁷⁷ D. Robert DeChaine, 'Affect and Embodied Understanding in Musical Experience', *Text and Performance Quarterly*, Vol. 22, No. 2, April 2002, 84.

⁷⁸ Becker, *Deep Listeners: Music, Emotion, and Trancing*, 66.

⁷⁹ Sophie Pécaud, 'Rhys Chatham at the Soy Festival Nantes', 2008.

⁸⁰ D'Aquili and Newberg, *The Mystical Mind: Probing the Biology of Religious Experience*, 1999, 89.

authority of ego-dominated perception – by combining perceptualization processes with entrainment and frisson.

For example, frisson generated by loud volume, in combination with entrainment through steady repetition of frequencies and rhythms over extended durations, can arouse a listener's sympathetic nervous system, and draw them into an engagement where sound is predominantly processed subconsciously – felt, more than analysed – and awareness is focused on perception, embodied in the present moment. The use of a steady pulse and repetition over extended durations in Chatham's music is a method to facilitate rhythmic entrainment that activates (ergotropic) trance processes, creates a communal or social bond through music, and evokes arousal and felt responses. Indeed, Chatham believes the amplified sounds are also imbued with an affective potency: 'we think of a blissful state as being in the moment, and when you play at high volume levels it sort of forces the listener to stop thinking, and when they stop thinking it means that we can put them in touch with their emotions'.⁸¹ These two components of the listening experience may generate subjective felt responses, and their socially mediated expression, as emotions through an experience of immanence through music. This practice in itself is not unusual: as Kathleen Marie Higgins concludes that 'the use of music to achieve ecstatic experiences is cross-culturally widespread'.⁸²

The deployment of these immersive, repetitive, and voluminous musical elements in *Guitar Trio* concur with Judith Becker's definition of trance induction that 'draws on emotion, depends on emotion, and stimulates emotion through sensual overload: visual, tactile, and aural'.⁸³ Becker notes strong emotional arousal through music is connected with profound transformations of consciousness by neural stimulation and the release of chemicals that alter how we feel and think.⁸⁴ One of the results of the psychophysical transformation triggered by these processes is that mental processing can slow down, so that constructions of personality and time can expand; here, she adds, 'slowing [or

⁸¹ Chatham, in interview with the present author, 2013. Note: this comment about Neptune relates to principles of astrological principles. For more, see Alan Leo and Bessie Leo, *Planetary Influences* (London: L. N. Fowler & Co., 1910), 52-58.

⁸² Higgins, *The Music Between Us: Is Music a Universal Language?* 2012, 155.

⁸³ Becker, *Deep Listeners: Music, Emotion, and Trancing*, 66.

⁸⁴ *Ibid*, 132-133.

suspending] the mind is one aim of meditation, and [...] a by-product of trance consciousness as well'.⁸⁵

Simon Reynolds also identifies how these iterated, loudly amplified rhythmic sounds of guitars and drums of *Guitar Trio* hold a trance-inducing potential for a listener,

[Chatham] defined rock in terms of the textures of amplified electric guitars, largely jettisoning not just melody, songs, and the human voice, but the role of the rhythm section. When Chatham's Meltdown ensemble performed *Guitar Trio* at Max's Kansas City in 1979, there was no bassist and drums were reduced to a single hi-hat. Rhythm [...] was not about groove or appealing to the body, but about trance-inducing metronomic repetition. The [...] sound wall hit you physically but left the body inert. Its ultimate effect was intensely cerebral and/or spiritual, and thus closer in method and intent to the post-John Cage tradition of downtown minimalism.⁸⁶

Guitar Trio certainly evidences post-Cagean aesthetic concerns with acoustic and psychoacoustic phenomena, combined with an affective physicality generated by repetitive rhythms and volume. However, rather than suggest this is a largely cerebral work, its ecstatic and emotive components are significant also.

These 'trance-inducing' qualities of *Guitar Trio* comprise an idiosyncratic post-minimalist rock-influenced aesthetic. The dense, loud composite sound and its psychophysiological presence demand a listener's attention, drawing them into an embodied engagement that elicits trance processes 'from the top down' through acoustics and psychoacoustics activating quiescence, and 'from the bottom up' through entrainment and frisson, both activating arousal.

It is possible to broadly attribute specific musical techniques to reports of trance processes associated with *Guitar Trio*.⁸⁷ A listener who is perceptually engaged through sustained immersion in dense and resonant sound, a subtly changing timbral focus that encourages perceptualization, through variation of minimal repetitive musical material (ideosensory techniques) is likely to experience some quiescence, linked with the trophotropic trance process. A listener who

⁸⁵ Ibid.

⁸⁶ Simon Reynolds, 'Rip it Up and Start Again: The Footnotes', 2008, <http://ripitupfootnotes.blogspot.ie/2008/11/footnotes-5-chapter-4-contort-yourself.html>. Accessed 19 August 2015.

⁸⁷ Of course, depending upon an individual listener's level of engagement, these processes can manifest independently, or combine to different degrees.

becomes entrained through a steady and repetitive pulse and rhythms, and/or is moved by the frisson evoked through dense, high volume sound, is likely to experience arousal, linked with the ergotropic trance process.

Thus, Nicole V. Gagné proposes that Chatham ‘adopted the energy of rock to create pleroma music with *Guitar Trio*’ in the context of postmodern music.⁸⁸ The term ‘pleroma’ contextualises his synthesis of avant-garde music using the harmonic series, resonance, and tuning in order to alter consciousness profoundly, with a forceful and vital sound that may be equally life-affirming and trance-inducing, derived from New York rock’s instrumentation, rhythms, and performance style. Accordingly, the composer proposes that listening to amplified and immersive sounds deploying the harmonic series over extended durations is a method of expanding consciousness through musical experience: ‘music is this Neptunian thing – Neptune symbolizes water, it symbolises diffusion of all kinds and essentially a dissolution of the ego, because when you listen to music, [...] you lose yourself in the music.’⁸⁹

I understand the experience of ego-dissolution in this context as ‘the ego’s dissolution in a moment of identity with its source, preceding a revitalized engagement with the surrounding world’.⁹⁰ This listening modality coincides with an aesthetic of the immanent sublime. Kiene Brillenburg Wurth delineates this postmodern aesthetic of immanence as ‘a sublime of sound in its very matter, rather than intimating an ideational beyond’.⁹¹ She adds, by ‘the very failure of the mind to regulate the “data” of experience the sublime announces itself’.⁹² While meaning and value may be ascribed thereafter, an individual’s experience is paramount.⁹³

I contend that the practices in *Guitar Trio* are informed by an aesthetic of the postmodern immanent sublime. In Chatham’s peculiar post-minimal music, a listener’s individual engagement is elicited to reflect and reconfigure subjectivity,

⁸⁸ Gagné, *Historical Dictionary of Modern and Contemporary Classical Music*, 60.

⁸⁹ Chatham, in interview with the present author, 2013.

⁹⁰ John P. Dourley, *On Behalf of the Mystical Fool: Jung on the Religious Situation* (New York: Routledge, 2009), 58.

⁹¹ Wurth, *Musically Sublime: Indeterminacy, Infinity, Irresolvability*, 2009, 123.

⁹² *Ibid*, 128.

⁹³ This aesthetic is evident in Cage’s reply to the question “what is the meaning of life?": “no why. just here”. John Cage, in David Friend, *The Meaning of Life: Reflections in Words and Pictures on Why We Are Here*, Boston: Little, Brown, and Company, 1991, 170.

a factor that differentiates the experience, and determines the meaning of the work of art. This is achieved through music that foregrounds sonic materiality (acoustics), its psychological import (psychoacoustics), and an affective, and attendant emotive component (entrainment and frisson).

Concluding Thoughts

I have presented a reading of how *Guitar Trio* combined Chatham's personal experiences, primarily with early minimalism and no wave rock, to create an idiosyncratic post-minimalist music that synthesised composing, performance, and listening approaches from across both genres. Kyle Gann proposes that one of Chatham's major contributions with his music for electric guitar was 'bringing minimalism into rock and vice versa'.¹⁰⁰ He concludes that, from a new music perspective, Chatham's achievement with this music was 'that he expanded minimalist form to accommodate the volume and inertia-laden, resonant materials of rock'.¹⁰¹ This is a reading with which I largely agree, and my research has detailed exactly how *Guitar Trio* combined a degree of accessibility, through a combination of immediacy and physicality, with a conceptual and intellectual thoroughness.

Guitar Trio succeeded in engaging with listeners outside a new music audience, and would receive recognition for the subsequent influence of its innovations within the context of popular culture (discussed hereafter in the thesis). Accordingly, one popular music magazine commented that *Guitar Trio* is 'arguably the center of the modern guitar canon' when it placed Chatham at number forty-five in their poll of '100 Greatest Guitarists of All Time'.¹⁰² This music continues to attract interest from artists operating across classical and popular music; for example, the North American G3 tour of 2007 featured guest musicians including members of underground rock groups Godspeed You! Black Emperor, Hüsker Dü, Sonic Youth, Swans, Modern Lovers, Tortoise, as well as composers Bill Brovold, Tony Conrad, and Owen Pallett.

¹⁰⁰ Gann, *Music Downtown: Writings from The Village Voice*, 2006, xv.

¹⁰¹ Gann, 'Paradigms Lost: Rhys Chatham/John Zorn' (1989), 111.

¹⁰² Anon., 'SPIN's 100 Greatest Guitarists of All Time', 2012, <http://www.spin.com/articles/spins-100-greatest-guitarists-all-time?page=5>. Accessed 16 November 2012.

As noted, members of prominent American post-rock groups Godspeed You! Black Emperor, and Tortoise have an affinity with Chatham's music. Indeed, there are striking similarities in the aesthetics and practice of the composer's music for electric guitars and post-rock, which emerged primarily in the UK and US during the early 1990s. Significantly, these were primarily guitar-centric instrumental groups, featuring bass and drums, whom Simon Reynolds observes 'use guitars but in nonrock ways, as timbre and texture rather than riff and powerchord'.¹⁰³ He concludes that the resulting music privileges 'fascination rather than meaning, sensation rather than sensibility', whereby a listener is 'plunged into plateau-states of bliss, awe, uncanny-ness, or prolonged sensations of propulsion, ascension, free fall, immersion'.¹⁰⁴ Reynolds identifies digital culture as the catalyst for post-rock's emergence, one that is indicative of a 'new model of human subjectivity'.¹⁰⁵ In fact, this means of exploring human subjectivity was present in Chatham's music for electric guitars from the 1970s onward, driven by the emergence of electronics and the use of this equipment to engage autonomic nervous system processes and reconfigure subjectivity.

Chatham's music for electric guitars was formative for American underground rock and downtown composition emerging in the late 1970s and thereafter as a postmodern hybrid, emphasising immanence, subjectivity, and sublimity. In the chapter to follow, I examine how he continued to operate in a heterogeneous field of activity between avant-garde and rock, to develop radical new works for the instrument that contributed to these aforementioned developments.

¹⁰³ Reynolds, 'Post-Rock' in Cox and Warner (editors) *Audio Culture*, 358.

¹⁰⁴ Ibid.

¹⁰⁵ Ibid.

Chapter Six: ‘Drastic’ Music for Electric Guitars (1978-1982)

In this chapter I seek to account for the evolution of Chatham’s non-notated music for electric guitar between 1978 and 1982. I will examine *The Out of Tune Guitar* (1978), *Acoustic Terror* (1979), *Wild Romance* (1980), *64 Short Stories* (1981), *Drastic Classicism* (1981), and *Guitar Ring* (1982), in order to map the development of his body of work for the instrument. I will examine how these works are an important part of his work, in light of their bold aesthetic and practical innovations. This non-notated music was developed in the context of downtown postmodernism from the mid-1970s onward, when musical genres intersected and overlapped in an unprecedented manner. I seek to determine how and why Chatham’s music could be situated in art and rock contexts simultaneously.

6.1 *The Out Of Tune Guitar* (1978)

With *The Out of Tune Guitar* (1978), Chatham distinguished himself from the previous generation of avant-garde artists and their models and principles of composition. The title of the work is a play on La Monte Young’s *The Well-Tuned Piano*, appropriately for music that revels in a divergence from ‘pure’ tunings, and pre-established avant-garde and rock conventions.

This music was conceived to exploit the out-of-tune tuning of the guitars at the conclusion of a *Guitar Trio* performance. It distills the iconoclastic, aggressive attitude and unconventional instrumental techniques of the no wave to create a clanging, noisy, and repetitive sound, that simultaneously channelled the abrasive sonic assault of underground rock and avant-garde noise (for example, John Cage and Luigi Russolo). Thus, *The Out Of Tune Guitar* has been described as ‘a head-banger suite [...] that cocooned the listener in the metallic clangour of overtones—those silvery, shimmering notes that fall between the

cracks in the piano keys [...] a melding of classical avant-garde and high-volume rock guitar'.¹

The Out of Tune Guitar utilised a radically dissonant tuning 'system', individual differences in playing technique, improvisatory rhythms, and anti-virtuosic 'solos'.² Rather than adhere to a precise just intonation tuning system or clearly defined primary tonal centre, the ensemble is encouraged to experiment with random tunings to generate a dissonant tonal centre sustained by iterated open chords. The acoustic and psychoacoustic phenomena, dissonance, and frisson explored in *The Out of Tune Guitar* would characterise his non-notated music for electric guitar after *Guitar Trio*. Moreover, Chatham transcribed a recording of *The Out of Tune Guitar* in live performance to score a major work for brass octet and percussion, *Massacre on MacDougal Street* (1982), also known as *For Brass*.

The first version called *The Out of Tune Guitar, No. 1* used three guitars, bass, and a drum kit, to work within the form devised by Chatham. The earliest available document of this work is *The Out of Tune Guitar, No.2* (1982) on the *Factor X* recording, clocking in at 1' 48".⁴ Here, four out-of-tune guitars enter individually, playing open-string chords in interlocking patterns, gradually adding more dissonance and rhythmic complexity to the persistent 4/4 backbeat on drums. They use an improvisatory approach to these rhythms also. There is no bass guitar on this version thus the clanging guitars predominate. This has analogies with the anti-virtuosic, individualistic, and unconventional approaches evident in no wave (discussed in Chapter Four of this thesis).

The music worked with a verbal 'score' detailing the cues and basic rhythmic motif. Chatham recounts the general way he developed these non-notated works, 'I came into the rehearsal studio with the basic idea, [...] and we'd play around with it, and then we'd gig'.⁵ This method of working in rock is summarised by Seth Kim-Cohen:

¹ Mark Dery, 'The Downtown Sound: New York Guitar '86 (Part 1), The Solo Artist/Composers', *Guitar Player Magazine*, 1986, 30-31.

² For example, these 'solos' feature on Rhys Chatham, *The Out of Tune Guitar No. 2 on Factor X* from 0'56" to 1'10" and 1'23" to 1'37". Live performances of the work also feature improvised 'solos'.

⁴ Chatham, liner notes for *Factor X*, 1983.

⁵ Chatham, in Bridges, 'Rhys Chatham Interview', 2003.

The authoring of the rock-and-roll semiotic is almost always a group activity. Although a songwriter may create the basic architecture for a song, that composer rarely writes parts for each instrument. As a result, the bassist and the drummer, for instance, often work out their own parts within the framework [provided].⁶

The above rock approach is certainly evident in *The Out of Tune Guitar* (and the other non-notated works for electric guitar to varying degrees), allowing players room to incorporate their playing style into the framework created by the composer. Moreover, Chatham specifies how he worked with elements from avant-garde and rock traditions in this composition:

Three guitars are tuned to the same out-of-tune tuning. The piece is constructed so that at certain points, four different style of playing emerge simultaneously, while still remaining cohesive. At other points one has the distinct impression of hearing men's voices in conversation. A psycho-acoustic effect caused by the peculiar tuning of the piece. While the sound palette of the work is drawn from the classical avant-garde, the organization, the compositional techniques, and methods of musicians working together, come directly out of the rock tradition.⁷

To illustrate how this works in practice, I now detail an interpretation of *The Out of Tune Guitar* that I performed with Chatham.⁸

This version of *The Out of Tune Guitar* was structured in ABA form using one hundred guitars, bass, and drums.⁹ The method of verbal instruction was clear and succinct, and enabled a freedom and spontaneity, particularly for performers coming from backgrounds in non-notated forms, such as rock. It consisted of a brief run-through, learning the form, and following Chatham's cues for the changes. While the composer prefaced the performance with an explanation to the audience that the ensemble would use a special tuning,¹⁰ guitarists randomly tuned their strings up or down in preparation for the execution of this 'dance number'.¹¹ Then, after we played an introductory riff

⁶ Seth Kim-Cohen, *In The Blink of an Ear: Toward a Non-cochlear Sonic Art*, 2009, 148

⁷ Rhys Chatham, 'Drastic Classical Music for Electric Instruments', programme notes. Accessed 17 April 1981.

⁸ This performance was as an encore to *A Secret Rose* in Birmingham, Town Hall on Saturday 7 June 2014. Chatham often concludes performances of *Guitar Trio* and *Die Donnergötter* with an interpretation of *The Out of Tune Guitar*.

⁹ The studio recording from 1982 only iterates the B section, with partly improvised rhythms and a 'solo' by each guitarist.

¹⁰ As Chatham informed the audience at the US Premiere of *A Secret Rose* in San Francisco on 18 November 2013: 'this tuning is very special, it wasn't invented by me, it was invented by a pre-Socratic philosopher named Pythagoras, and it's in a very particular system of just intonation, taught to me by my teachers La Monte Young, Tony Conrad, Charlemagne Palestine, [and] Terry Riley'. Transcribed by the present author from an audio recording of the performance provided by Other Minds.

¹¹ Chatham, in rehearsal for *A Secret Rose*, Birmingham Town Hall on 7 June 2014.

from Black Sabbath's 'Iron Man', a massive, dissonant chord is sounded to signal the beginning of *The Out of Tune Guitar*.¹²

During the A section, guitarists keep a close eye on Chatham, positioned centre stage with his guitar, with his back to the audience to cue the chord strikes. This section consists of a gradual *accelerando* in free time, with massive open-string cluster chords and cymbals crashes, directed by the composer's exaggerated and expressive gestures. At first, these chords ring out with silences between the strikes, until gradually the *accelerando* morphs into massed *tremolando* playing.

As the final chord rings out, the drums led to the B section. Here, a repetitive rhythm is established and maintained on the guitars' open strings: quarter note, two eighth notes, quarter note, and two eighth notes. Thereafter, three selected guitarists improvised 'solos' in styles of their choice; for example, speed metal, atop the iterated rhythm. After approximately two minutes of steady clangour, Chatham signalled a final chord, before a repeat of the A section.

As a performer, I found the absence of a musical score allowed a broader, more diffuse awareness of the music and performance, encouraging listening and performing in the moment (*Figure 6.1*). The composite sound was of considerable complexity, density, and dynamic range, akin to the clangorous sound of *Two Gongs*, but on a much vaster scale. The work has a bracing affect, generated through the density of sound, its volume, and the use of a complex and dissonant tuning. The experience of performing and listening to this audacious and outrageous music was a source of exhilaration and fascination.¹³ The densely layered composite sound engaged my perceptions through its timbre, augmented by the frisson created by the forceful sound.

¹² One of the guitars' three lowest strings was kept in tune by the musicians divided into three groups – E, A, and D respectively – to play the 'Iron Man' riff twice using a massed power chord. Subsequently, the guitars' remaining five out-of-tune strings were sounded to begin the A section.

¹³ Much of these technical details are from notes I made after rehearsals for the concert, with some reflections from after the performance.

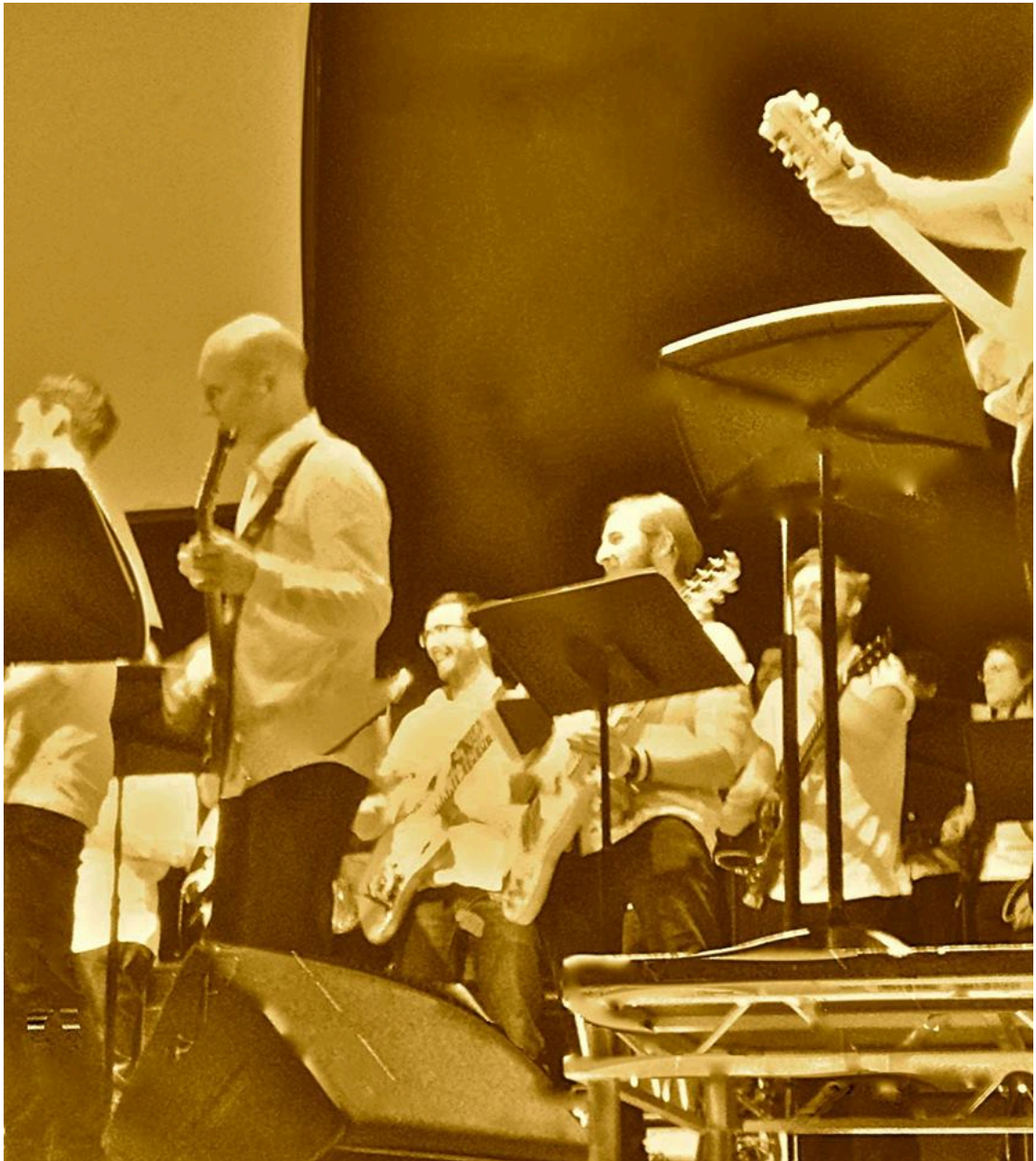


Figure 6.1: *The Out of Tune Guitar* at Town Hall, Birmingham, 2014 (Maria Parsons).¹⁴

Although this ‘orchestral’ version of *The Out of Tune Guitar* features guitar solos, improvised tuning, and a verbal score, it does not foreground the individual playing styles of the musicians, as evident in the context of the performance of his non-notated music (notwithstanding this performance); especially, those instances using smaller configurations of electric guitars, of between one and ten instruments.

¹⁴ The present author is the third figure visible from the left of the image.

For instance, these individual playing styles are encouraged to manifest through unconventional techniques and aggressive performance style similar to underground New York rock. Kim Gordon describes how this approach shapes the music performed by Chatham and his ensemble in 1980:¹⁵

Once you include the musicians as individuals a certain amount of control is given up and the music can then be allowed to be impure and potentially more exciting, which often relies on a particular grouping of people setting up varying tensions, timings, and tones.¹⁶

She identifies that this method uses the musical persona to shape the music, so that each player contributes to the interpretation of the music. Gordon contrasts this strategy with the 'pure technique' of modernism, where self-expression is largely negated (discussed below, also).

Here, the concept of persona is useful to understand how an individual musician's participation shapes the interpretation of *The Out of Tune Guitar* in performance (and other music for electric guitar from 1977 to 1982). Persona is understood here in the sense established by philosopher and writer, Alan Watts, where he identifies its etymology with the superficial aspect of a performer that, nonetheless, amplifies and shapes the sound coming from within: 'person, from the Latin persona, was originally the megaphone-mouthed mask used by actors in the open-air theaters of ancient Greece and Rome, the mask through (per) which the sound (sonus) came'.¹⁷ Thus, it is possible to conceive how subjectivity shapes an interpretation of music through the role of the performer.¹⁸

A musician's persona is actively encouraged to inflect this non-notated music through anti-virtuosic and unconventional instrumental 'techniques' and ensemble performances. This is in distinction to the modernist definition of technique proposed by Dane Rudhyar, where 'technique is a means to eliminate all impurities which lead to a waste of power; to make a worker a "pure" agent of

¹⁵ The title of this non-notated work is not given, though from the description it is possibly a version of *The Out of Tune Guitar*; nevertheless, it provides useful insights into the composer's working methods as this point.

¹⁶ Kim Gordon, 'Trash Drugs and Male Bonding' (1980), 30-31.

¹⁷ Alan Watts, *The Book: On The Taboo Against Knowing Who You Are* (New York: Vintage Books, 1989), 40.

¹⁸ Analogously, a listener's subjectivity is elicited to interpret the music as well through entrainment, frisson and perceptualization (discussed in previous chapter).

production without conflicts, fears, or complexes'.¹⁹ Steve Reich advocates a similar ego-effacing notion, stating that 'the pleasure I get from playing [...] is not the pleasure of expressing myself, but of subjugating myself to the music and experiencing the ecstasy that comes from being part of it'.²⁰ In contrast, Chatham's aesthetic and practice during this period was a departure from previous conceptions of modernist purity, foregrounding subjectivity in performing (as well as composing and listening), particularly in improvisatory techniques determined by individual choice and idiosyncratic playing techniques (participatory elements) in music, mixing together minimalism and rock.

Correspondingly, Gordon's proposal that 'Rhys Chatham is a serious young composer who writes dirty music' underlines the perceived impurity in his aesthetic and practice, in contrast with modernist ideals of generic purity.²¹ For instance, the purity of 'high' modernist art is evident in Clement Greenberg's statement:

To eliminate from the specific objects of each art any and every effect that might conceivably be borrowed from or by the medium of any other art. Thus would each art be rendered 'pure', and in its 'purity' find the guarantee of its standards of quality as well as of its independence.²²

In contrast, Branden W. Joseph highlights the 'impurity' in Chatham's post-modern approach:

A more visceral and exciting counter-aesthetic [...] which embraces impurity on several levels: the discordant tuning of the guitars, the mixing of musical idioms (jazz, blues, rock, improv), the idiosyncratic and imperfect playing of the musicians, and the use of "cheap drugs" (Locker Room, an amyl-nitrate popper) to foster more self-indulgent performances. Eschewing the sterility of classical music style (even updated by new music composers such as La Monte Young, Steve Reich, and Philip Glass), Chatham's group approaches the dense, distorted tonalities of rock and roll, playing off one another in a tense, embodied, and intersubjective manner that opens the way, ultimately, for desire. This [...] seems to be the promise of an immanent, real-time "technique".²³

¹⁹ Gordon, 'Trash Drugs and Male Bonding' (1980), 27.

²⁰ Steve Reich, 'Music and Performance' (1969-74, 1993) in Steve Reich, *Writings on Music: 1965-2000* (Oxford: Oxford University Press, 2002), 82.

²¹ Gordon, 'Trash Drugs and Male Bonding', 31.

²² Clement Greenberg, 'Modernist Painting' (1960), Clement Greenberg, *The Collected Essays and Criticism*, edited by John O'Brian, *Volume 4, Modernism with a Vengeance, 1957-1969* (Chicago: University of Chicago Press, 1993), 86.

²³ Branden W. Joseph, in Kim Gordon, *Is It My Body? Selected Texts*, edited by Branden W. Joseph, 2014, 14.

I find that the playful deployment of subjectivity in Chatham's work was comparable to the method of rock artists who 'use their egos to shape the music' as a means to 'destroy, within their own framework, the standard of what had gone before, giving rise to new forms'.²⁴ This contextualizes the composer's view of his approach: 'extremely aggressive and loud, dealing with the overtone series but encompassing the punk gesture, y'know, violence. We were both seeking to undermine that whole [classical] training and coming up with something different!'.²⁵

As I have detailed in this critical reading, Chatham's postmodern aesthetic was an extension of modernism, yet it also broke with its traditions (including its generic purity). I locate *The Out of Tune Guitar* and Chatham's work with electric guitars in the context of postmodern artists of this generation including Laurie Anderson and Glenn Branca (discussed in Chapter Four). Significantly, Gordon notes these musicians embraced the 'notion of merging avant-garde and popular culture' and 'transcended the isolation of the art world' through 'non-purist' music, moving 'back and forth' smoothly between art and rock worlds.²⁶ This is also in accordance with Christoph Cox and Daniel Warner's aforementioned definition of the postmodern aesthetic as 'characterised by a breakdown of the boundaries between high art and mass culture'.²⁷ Therefore, I locate Chatham's synthesis of art music and underground rock as a distinctly postmodern and post-minimal approach.

6.2 Noisy Music for Electric Guitars: 1979-1981

Chatham's non-notated music for electric guitars developed – using increasingly complex tunings, configurations of players, and musical structures – across the contexts of rock and downtown music in New York from the late 1970s and early 1980s. His 'art rock', or not-not-rock music, of this period shared

²⁴ Gordon, 'I'm Really Scared When I Kill in My Dreams' (1983), *Is It My Body? Selected Texts*, 52.

²⁵ Chatham, in Golden, 'Conversations at the Crack o' Dawn: Rhys Chatham', 1985.

²⁶ Gordon, 'I'm Really Scared When I Kill in My Dreams', 51.

²⁷ Cox, and Warner, *Audio Culture: Readings in Modern Music*, 2004, 414.

aesthetics with the sounds of experimental rock, which, in turn, it would influence.

Art rock is a term used to identify the downtown composers whose music comprised of avant-garde classical and rock elements, a movement that emerged partly as a result of Chatham's innovations with *Guitar Trio* and his subsequent non-notated works. Previously, as a SoHo-based composer, Chatham had been marginal to the no wave scene. However, Bernard Gendron notes that the art rock of Branca and Chatham was 'flourishing', 'if only within its own antiseptic domain, increasingly alienated from no wave and poised to fill the void in borderline music, under the guise of the new downtown'.²⁸ As my research has shown, Chatham played shows alongside the East Village no wave musicians during this period – for example, his debut at Max's Kansas City on a bill with Contortions on 21 April 1979 – and he would perform in clubs such as CBGB, Danceteria, and Tier 3, thereafter (assuredly, not 'antiseptic domains').

Kyle Gann observes that art rock joined conceptualism, free improvisation, and minimalism as the primary movements in downtown art.²⁹ Analogously, Philip Sherburne observes a particular kind of 'minimalism in rock' arising during this period, in the work of rock artists such as James Chance and Sonic Youth, who 'adopted a particularly expressivist stance, marked by noisy outbursts, microtonal experimentation, and a stripped-down, visceral sound'.³⁰ It was in the context of downtown art rock and post-no wave rock, that Chatham developed further non-notated works for the electric guitar.

His *Acoustic Terror* (1979) for solo electric guitar and drums, combined an amplified guitar in just intonation, with an aggressive, monotonous, and relentless performance style drawing upon underground rock. Edward Rothstein found notable interest in its 'sense of split worlds - the cacophonous assault [...] and the more fragile, isolated lines of interacting overtones'.³¹ While Rothstein's appraisal reflects a view affirming pre-existing divisions between genres, the music destabilised these constructs through a merger of elements from across

²⁸ Gendron, *Between Montmartre and the Mudd Club: popular music and the avant-garde*, 2002, 292.

²⁹ Gann, *Music Downtown: Writings from The Village Voice*, 2006, xiii.

³⁰ Philip Sherburne, 'Digital Discipline: Minimalism in House and Techno' (2004), p. 320.

³¹ Rothstein, 'Music: Works by Chatham at The Kitchen', 1981.

musical domains. Here, a focus on the timbral possibilities of a dissonant microtonal tuning was recontextualised – using repetitive and regular rhythms from guitar and drums framing the music – to fashion a noisy and visceral just intonation sound.

Acoustic Terror addressed formal concerns with perception, repetition, and microtonal tuning, with a rock energy and performance style – that included abrasive, anti-virtuosic, and unconventional instrumental sounds. Using his guitar, Chatham extemporized rhythms and overtone structure against a strong, steady rock drumbeat. An iterated metallic clanging, from dissonant open-string guitar chords, alternated with a quieter, steady single-string exploration of the morphology of one sound. The stark instrumental sound is reminiscent of no wave rock, for instance: DNA, 'Not Moving' (1978), and Teenage Jesus and The Jerks, 'Orphans' (1978).³³ The improvisatory approach was energised by the interplay of minimalist, just intonation guitar playing and David Linton's metronomic, propulsive drums. This exemplifies Chatham's method of working with a drummer, where the percussionist's playing style characterises an interpretation of the work.

The exploration of acoustic and psychoacoustic phenomena exploited the loudly amplified sound wave generated by closely-tuned intervals played on the guitar. Acoustic beats were exploited to realise the composer's intention that 'the music and melodic motion lie within the percussive timbre which occurs between the sixth-ninth overtone when a D, D#, and E tonality mesh together'.³⁴ Its deployment of intervals with ratios such as 63:64 – equivalent to 'one-seventh of a whole tone' – is a direct application of just intonation to abrasive underground rock sounds rendered by amplified electric guitars.³⁵ This style of playing guitar partly stemmed from the technical limitations that Chatham encountered, 'I have less than average digital dexterity and I simply couldn't move my fingers fast enough or figure out where to put them on the guitar: and I tried, I tried really hard'.³⁶ As a consequence, a conceptual and unorthodox approach to guitar

³³ DNA, 'Not Moving', *No New York*, 1978. Teenage Jesus and The Jerks, 'Orphans', Migraine Records, CC-333, 1978.

³⁴ Chatham, 'Drastic Classical Music for Electric Instruments'. Accessed 17 April 1981.

³⁵ Adriaan Daniel Fokker, *Just Intonation and the Combination of Harmonic Diatonic Melodic Groups* (New York: Springer, 1949), 70.

³⁶ Chatham, in Young, 'Rhys Chatham', 1999.

developed, a non-virtuosic style that emphasised rhythmic improvisation and the morphological possibilities of the instrument.³⁷

The composer identified points of contact between the genres, and then amalgamated these compatible dissonant, minimal, and voluminous elements. Moreover, this synthesis of art and rock played upon perceptions of previously established genre constructions, without firmly committing to either genre alone. Chatham pointedly left the conferral of meaning open to a listener:

I don't consider my music noise [...] my concern has always been more overtones. So people who hear overtones and harmonics, they hear that in the compositions, but it's kind of loud what I do, and so other people might hear this: noise. So again, it's in the mind of the listener.³⁸

Thus, by leaving the musical meaning open to interpretation through its pluralist ambiguity, this non-representational music might be perceived as a post-minimalist composition fused with elements of rock, and/or an extremely noisy form of underground rock with minimalist tendencies. Perhaps as a consequence of the ambiguity inherent in his innovations, Chatham's music for electric guitars became associated with the abrasive and dissonant guitar-driven 'noise rock' scene emerging in New York concurrently.

Noise rock was a movement of experimental rock artists inspired, directly and indirectly, by the innovations of art rock, music that focused upon the timbres of loudly amplified guitars. Arising out of the no wave scene and the art rock aesthetic of composers associated with it, this movement came to prominence following 'Noise Fest'. The event featured performances by Branca, Chatham, Sonic Youth and UT, and was held at White Columns, 325 Spring Street, New York on 16-24 June 1981 (*Figure 6.2*).

³⁷ The only available document of *Acoustic Terror* is a video recording of a performance by Chatham and David Linton at The Kitchen. Although the performances in this recording are untitled, *Acoustic Terror* is identifiable by its distinctive tuning. See *Rhys Chatham: A Four-Year Retrospective*, from 29'55" to 35'30".

³⁸ Chatham, in Pranzl, 'Interview with Rhys Chatham', 2008.

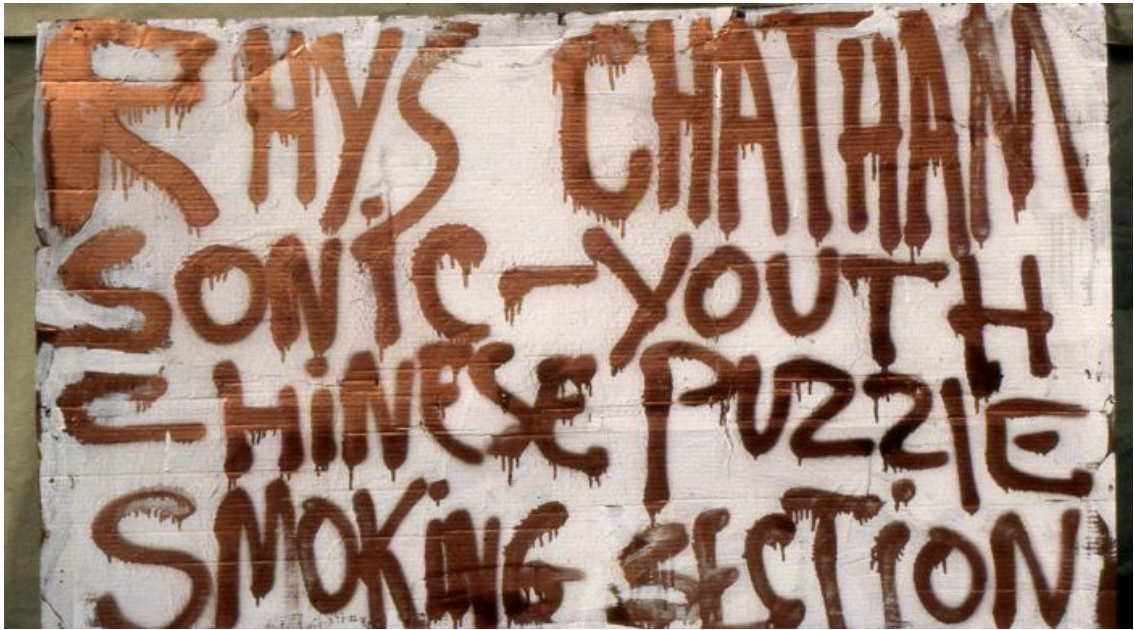


Figure 6.2: Installation from Noise Fest detailing the festival line-up on 18 June 1981 (uncredited, courtesy of White Columns archive).³⁹

Tellingly, Chatham's music would influence this movement of rock artists directly, led by Band of Susans, Sonic Youth, and Swans (*Figure 6.3*). Thurston Moore of Sonic Youth states that he wanted to incorporate Chatham's use of electric guitars in non-standard tunings, 'this kind of sound' into 'experimental song structure' when he devised the fundamental aesthetic of the group.⁴⁰ As noted previously, the group's other members were engaged with Chatham's music: Lee Ranaldo greatly admired *Guitar Trio* and Kim Gordon observed Chatham's art rock aesthetic closely as well. In addition, the composer had a decisive influence on another major noise rock group Band of Susans too (discussed in the next chapter).

It is indicative of his success in creating vanguard compositions that synthesised rock, that he attracted a number of young rock artists to perform this music: for example: Ernie Brooks (Modern Lovers), Nina Canal (Dark Days/UT), Karen Haglof (Band of Susans), Page Hamilton (Helmet), Jonathan Kane (Swans), Thurston Moore (Sonic Youth), Robert Poss (Band of Susans), and Susan Stenger (Band of Susans). By recruiting these rock musicians for his ensembles during the 1970s and 1980s, Chatham detailed new possibilities for musicians negotiating between the avant-garde and the popular.

³⁹ Chatham and his ensemble played the festival along with Sonic Youth, Chinese Puzzle, and Smoking Section on 18 June 1981.

⁴⁰ Moore, 'Q. & A. Masterclass', BIMM Institute, 2015.



Figure 6.3: Rhys Chatham's ensemble performs at Danceteria, New York in 1982 (left to right): Thurston Moore, Tim Schellenbaum, Jonathan Kane, Chatham, and Ned Sublette (Paula Court).⁴¹

Chatham's work for electric guitars focused on texture and timbres incorporating density, dissonance, and volume in music derived from the harmonic series, which could be perceived as noisy. Simon Reynolds identifies that noise in music is a means to access profound states of consciousness:

If music is like a language, if it communicates some kind of emotional or spiritual message then noise is best described as interference, something which blocks transmission, jams the code, prevents sense being made. [...] Noise then, occurs when language breaks down. Noise is a wordless state in which the very constitution of our selves is in jeopardy. The pleasure of noise lies in the fact that the obliteration of meaning and identity is ecstasy (literally, being out-of-oneself).⁴²

In this sense, noise can refer to sound that focuses upon perception and sensation, rather than meaning, disrupting the language-narrated self and provoking the psyche. In this way, a non-sonorous force (an animating principle) is rendered sonorous through sentient experiences of a musical sublime

Furthermore, Reynolds proposes:

⁴¹ Jonathan Kane, the drummer in this photo, was also a founding member of the group Swans. He played regularly with Chatham during the 1980s and 1990s also (see Chapter Eight).

⁴² Simon Reynolds, 'Noise' (1990) in Cox and Warner (editors), *Audio Culture: Readings in Modern Music*, 2004, 55-56.

The point is self-subversion, overthrowing the power structure in your own head. The enemy is the mind's tendency to systemize, sew up experience, place a distance between itself and immediacy [...] the goal is OBLIVION (a.k.a. jouissance, the sublime, the ineffable).⁴³

This use of 'noise' to generate profound experiences characterised by immanence and immediacy is evident in the dense timbres and high volume of Chatham's work for electric guitars, music that encourages subconscious processing of sound to a noted degree, and can act as a means to activate sublime experiences.

Moreover, this aesthetic of 'noise' is a point of intersection for avant-gardism in classical, jazz, and rock.⁴⁶ Here, Alex Ross notes:

Human ears are attracted to certain euphonious chords based on the overtone series; when musicians pile on too many extraneous tones, the ear "maxes out." This is the reason that free jazz, experimental rock, and experimental classical music seem to be speaking the same language: from the perspective of the panicking ear, they are. It's a question not of volume but of density. There is, however, pleasure to be had in the kind of harmonic density that shatters into noise. The pleasure comes in the control of chaos, in the movement back and forth across a border of what is comprehensible.⁴⁷

Noise had been a point of congruence between new music and no wave that Chatham identified as a practical method of connecting these forms. Thus, Peter Cherches proposes:

Rock became entwined with new music primarily through the work of Rhys Chatham and Glenn Branca, both of whom combined principles of minimalist composition with heavily amplified rock instrumentation. [...] The music [...] was primarily concerned with overtones and the aesthetics of noise.⁴⁸

Notwithstanding the pioneering activity of this period, some found the music too formal or too extreme. For instance, Luc Sante summed up an oppositional stance toward Branca and Chatham's 'arid', 'theoretical and unsexy' music, and that their work, and the noise rock it inspired, was 'very arty, sort of academic, and definitely not funky.'⁵³ Bernard Gendron also highlights the formal training

⁴³ Ibid, 57.

⁴⁶ See Chapter Three for discussion of Chatham's background with free jazz and improvisation.

⁴⁷ Ross, *The Rest is Noise: Listening to the Twentieth Century*, 2009, 218.

⁴⁸ Peter Cherches, 'Part I: New Music Downtown, 1971-1987', 2007, <http://www.nyu.edu/library/bobst/research/fales/DowntownMusic/cherches2.html>. Accessed 14 May 2015.

⁵³ Luc Sante, in Simon Reynolds, *Rip It Up and Start Again: Post-punk: 1978-1984*, 2005, 400.

and unconventional sounds of the 'new downtown music' that Chatham was a practitioner of:

The shock aesthetic, now rid of its confrontative aspects, was reduced to formal experiments with jarring and loud timbres outside the conventional range of musicality. Minimalism played only a subsidiary role and was bereft of any references to creative amateurism and autodidacticism.⁵⁴

In fact, creative amateurism frequently informed the persona-driven performances of the music, by using largely self-taught musicians.

Conversely, rock critic David Bither approved of Chatham's combination of art and rock – extended techniques that elicit overtones and psychoacoustics using a steady rock beat and amplified instrumentation – in a performance from 1980,

All reservations about the authenticity of Chatham's roots are dispelled from the first note. This music rocks [...] the variations in texture and the overtones produced by strumming the guitars at different points along the fretboard set-up all kinds of inferred tunes: I swear that if there had been a place to do it, people would have been up and dancing to the concept.⁵⁵

This borderline aesthetic and practice was also explored in Chatham's *Wild Romance* (1980).

Wild Romance used a quartet of electric guitars and a drum kit to create acoustic phenomena, polymetric patterns, and timbral variations. The physicality of this music was accentuated by the steady backbeat against which the ensemble explored variations in rhythm, texture, and timbre. The composer's outline of this work details the increasing complexity of the music's composition and performance:

The guitars are tuned justly to D, A, D, F#, B, and E. The meter alternates between 3/4 and 4/4. At some points both meters occur at the same time, implying different tempos. In addition to working with the audible overtones of this tuning, the piece makes use of the percussive timbre one achieves by flatpicking over the 24th, 17th, 15th and 12th frets of the guitar.⁵⁶

The application of extended techniques to multiple guitars in just intonation (including microtonal intervals) generated a dense and noisy timbral music. By structuring the music through repetition and stasis, this music foregrounds resonant acoustic phenomena, including beats, overtones, and attendant

⁵⁴ Gendron, *From Montmartre to the Mudd Club: popular music and the avant-garde*, 292.

⁵⁵ Bither, 'Material/Massacre/Rhys Chatham', *New York Rocker*, April 1980, unpaginated.

⁵⁶ Chatham, 'Drastic Classical Music for Electric Instruments', programme notes, 1981.

rhythmic timbral interactions, given further variations by inadvertent discrepancies in string tuning resulting from aggressive playing.

Another work, *64 Short Stories* (1981) for two electric guitars, electric bass, and drums, details Chatham's developing aesthetic and practice during this period.⁵⁷ The duration of this work is approximately twenty minutes, and originally featured a 35mm slide projection provided by the artist Michael Zwack.⁵⁸ Zwack's slides used images from magazines, movies, newspapers and television 'manipulated, changed, and reintroduced back into the culture'.⁵⁹ As with Chatham's music – and Robert Longo's *Pictures For Film* – material from popular cultural is transformed through skills developed by training in the arts; similarly, 'these images touch upon, but do not specify narrative, and instead evoke particular familiar responses from the viewer'.⁶⁰ This has parallels with the elicitation of participatory and subjective listening experiences through the music's non-dialectical and non-representational sound.

As with the composer's previous non-notated music for electric guitar ensemble, the instrument extemporises morphology and rhythmic patterns, focusing upon improvisatory and intersubjective playing rather than virtuosity. A forty-five second excerpt of *64 Short Stories* for one guitar and drums details a guitar part played by Chatham – using the double-strummed droning one-string motif used in *Guitar Trio* – and a steady, cowbell-driven 4/4 drum pattern from Linton.⁶¹

The work is notable in the context of Chatham's output for electric guitars as the composer openly professes the intent to incorporate a listener's perceptual processes – as a means of inviting their participation – as an integral part of the musical experience:

⁵⁷ Its debut performance was at The Kitchen on 17 April 1981 with Michael Brown on bass, Chatham and Joe Disney on electric guitars, and David Linton on drums.

⁵⁸ Chatham's 'Music Catalog' titles the work as *64 Short Stories*, <http://www.rhyschatham.net/nintiesRCwebsite/Catalog.html>. Accessed 25 April 2015. These program notes refer to the work as *36 Short Stories*.

⁵⁹ Chatham, 'Drastic Classical Music for Electric Instruments', 1981.

⁶⁰ Ibid.

⁶¹ Rhys Chatham, *64 Short Stories on Various Artists, Just Another Asshole*, (1981), *Just Another Asshole*, #5, 1981.

The internal thought process of our minds in both image and enunciated thought can be included within a definition of music. *36 Short Stories* is actually a duet for aural sound and the internal thoughts of each audience member.⁶³

As his previous music sought to elicit a listener's perceptions, it is unsurprising that this work was likewise focused upon exploring and enlarging constructions of subjectivity – in this case, one's thoughts – through musical experience. However, Edward Rothstein identifies an issue with incorporating thought into the musical experience, and argues against thought being musical per se: 'it was as if the "overtone" to the violent sounds [...] were nonmusical vibrations of mental life, solipsistically lost in the midst of drastic attack'.⁶⁵ This criticism highlights the difficulty of hearing one's thoughts when immersed in the high volume sound of this music with its potency for negating thought. Nonetheless, Chatham's work of this period would lay the foundations for later compositions that would seek to create profound individual responses to music.

He continued to combine increasingly abrasive and dissonant high volume sounds with practices and aesthetics from downtown music hereafter. In fact, his subsequent music would intensify the physicality of sound while increasing the complexity of its structures, facilitated by additional guitarists, intricate compositional forms, and just intonation tuning systems.

6.3 *Drastic Classicism* (1981)

Drastic Classicism (1981) for four electric guitars and drums was radical music that enlarged avant-gardism in music through a synthesis of vanguard classical composition with a potent energy and sound from no wave rock. The work was a result of Chatham's collaboration with Karole Armitage's choreography and Charles Altas' costumes and lighting for the theatre piece *Drastic Classicism*, first performed at the Dance Theater Workshop, New York on 10 February 1981 (*Figure 6.4*).

⁶³ The composer suggests, 'each musician writes 36 stories, to be recited internally (and silently) within the space of 64 beats times eight, at 120 beats per minute. The stories call to mind the past events of the performers lives', Chatham, 'Drastic Classical Music for Electric Instruments', program notes, 1981.

⁶⁵ Rothstein, 'Music: Works by Chatham at The Kitchen', 1981.

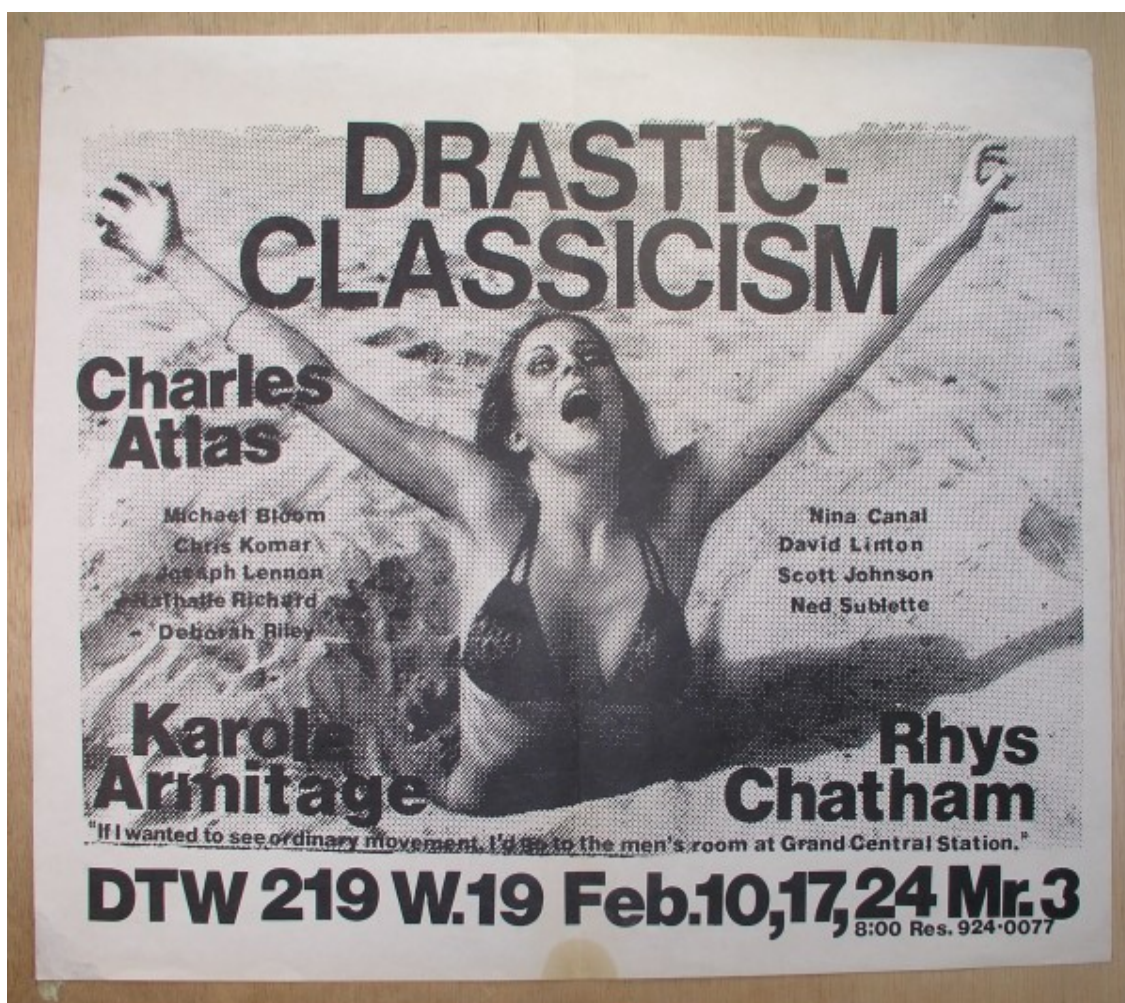


Figure 6.4: Poster for debut performances of *Drastic Classicism* at Dance Theater Workshop on 10, 17, and 24 February 1981 (courtesy of Dance Theater Workshop).

Armitage and Chatham's collaboration in *Drastic Classicism* was described as 'a strictly choreographed violation – and amplification – of virtuosic dance technique, with a rock rhythmic structure in which constant tension between restraint and clarity vied with drastic, passionate impulses'.⁶⁶ Sally Banes considers the dance component to be part of Armitage's 'systematic critique of classical movement' that combined the classical lines of her training with Merce Cunningham with the wild, sensual abandon of rock-influenced movement, which she developed throughout the late 1970s (*Figure 6.5*).⁶⁷ In an analogous way to Armitage's incorporation of rock into classical training, Chatham

⁶⁶ Karole Armitage, in Sally Banes 'A New Kind of Beauty: From Classicism to Karole Armitage's Early Ballets' (2000), *Beauty Matters*, edited by Peggy Zeglin Brand (Indianapolis: Indiana University Press, 2000), 275.

⁶⁷ Banes 'A New Kind of Beauty: From Classicism to Karole Armitage's Early Ballets', *Beauty Matters*, edited by Zeglin Brand, 2000, 275.

amalgamated facets of his own training to bring forth drastic music that synthesised downtown composition and New York rock.



Figure 6.5: (left to right) unidentified male dancer, Chatham, and Karole Armitage in 1979 (Terry Stevenson).

As outlined, the meaning and import of Chatham's music for electric guitar fluctuated according to a listener's musical preferences, and their points of reference. This, I argue, was due to his success in combining art and rock. This synthesis allowed the music move across underground rock and downtown music – without being restricted to pre-existing genre constructions – opening up the meaning of the work to the listener's interpretation, and the context of its performance. The composer alludes to this, stating that *Drastic Classicism* 'wasn't so much rock as pure unadulterated noise; or, depending on your background, a viscous, gelatinous sphere of screaming overtones being played in a relatively small room!'.⁶⁹ He adds, 'on a musical level, in an art context (e.g. The Kitchen or Artists Space), people heard *Drastic [Classicism]* as a new,

⁶⁹ Chatham, in Emilie Friedlander, 'An Extremely Drastic Case of Déjà Vu', 2009, <http://www.tinymixtapes.com/features/extremely-drastic-case-deja-vu>. Accessed 28 April 2015.

uncompromising form of minimalism. When I played it in a rock context, people heard it as a wall of noise'.⁷⁰

The composer performed *Drastic Classicism* regularly with his own ensemble, without dancers, from 1981 onwards.⁷¹ This work expanded upon the overtone possibilities of the guitar by deploying four instruments in related just intonation tunings. There is no bass used on this composition; thus, each of the four guitar tunings, using different tonal centres, combine to create a dense and dissonant composite sound when all are playing together. The composer explains his rationale for this development in terms of acoustic and psychoacoustic phenomena:

Each guitar is tuned around a different tonality [...] the tonal centers being C#, D, D#, and E, respectively. Despite the dissonance of the guitars in relation to themselves and each other, the culminant effect is amazingly consonant. Within the composite sound lies harmonic movement and numerous juxtaposed melodies. When a guitarist changes his or her picking technique slightly, instead of hearing the individual instrument change, the sound of the overall waveform alters, simulating the effects of orchestras at odds with each other: pianists playing madly.⁷³

The tuning system in this work sets up a complex sound field that is shaped by each musician's performance, and interpreted by a listener's perception of the sound.

It applies the practical knowledge from Chatham's tuning studies, and the early minimalism of Tony Conrad and La Monte Young, to tune intervals using acoustic beats. Indeed, Chatham uses the sound of the minor second interval in La Monte Young's *Second Dream of the High-Tension Line Step-Down Transformer* (1962), in *Drastic Classicism*. Chatham outlines the method: 'listen to the harmonics generated by the two strings, identifying the appropriate acoustic beats by ear, and tune accordingly'.⁷⁴

This system includes 'pure' or beat-free intervals, used for the multiple octaves and fifths. For example, Chatham's guitar is tuned: D, A, D, E \flat , E, D, with three octaves of D, a minor second ratio (17:16) between the D and E \flat , and a major

⁷⁰ Chatham, *ibid.*

⁷¹ An excerpt of *Drastic Classicism* was released on the compilation *New Music from Antarctica* (1982), a full-length version on the *Die Donnergötter* album (1987), and a revised version *Drastic Classicism Revisited* (2012) on his *Harmonie du soir* album (2013). See 'Catalogue of Chatham's Music' in Appendices.

⁷³ Chatham, 'Drastic Classical Music for Electrical Instruments', program notes, 17 April 1981.

⁷⁴ *Ibid.*

second (9:8) between D and E. The other three guitars are tuned using the same ratios, in D \flat , E \flat , and E, respectively, as follows (from lowest to highest string):

D \flat guitar: D \flat , A \flat , D \flat , D, E \flat , D \flat

D guitar: D, A, D, E \flat , E, D

E \flat guitar: E \flat , B \flat , E \flat , E, F, E \flat

E guitar: E, B, E, F, F \sharp , E.

These tunings allow for three open-string notes to sound at three octaves on each guitar, creating a dense and resonant timbre.⁷⁶ This method combines just intonation tuning systems with equal-tempered instrumentation and rock performance energy, to address concerns with acoustics and perception, minimalist techniques, tuning, and visceral sounds.

To shape this music, *Drastic Classicism* uses an aggressive, abrasive, and attitudinal rock intersubjective performance approach to playing rhythms, in combination with improvisatory and minimalist techniques. The level of sound used could reach great intensity, at around 90-120 decibels, to boost the audibility of overtones and provide an exhilarating, and potentially dangerous, physicality to the music. Chatham claims that some performances blew P.A. systems, and may have caused hearing damage:

Of all my pieces, this was one of the most physical. And I would say that it single-handedly contributed to not only the loss of my own hearing but significant hearing damage to half the New York art world as well.⁷⁷

The use of loud volume could certainly verge on the painful, and it was likely to be hazardous for an audience at times.⁷⁸ This is comparable to the use of high volume by hard rock groups such as AC/DC and The Who, the punks, and no wave artists; however, exposure to aggressive use of high volume over extended durations was certainly reckless and dangerous for audiences and performers. It became problematic for the composer also when he was forced to

⁷⁶ Although, the composition employed a just intonation tuning system initially, the instructions to performers note that if this proves problematic on individual guitars, or in relation to the relative of the tuning of the instruments to one another, equal temperament intervals may be used (see discussion of the work's tuning issues in performance hereafter also)

⁷⁷ Chatham, liner notes for *An Angel Moves Too Fast to See: Selected Works: 1971-1989*, 2003, 30.

⁷⁸ For instance, a music professor claimed that, Chatham is a 'musician whose work I admire even though he permanently damaged my hearing in 1987' (private email correspondence with current author in November 2011).

temporarily stop playing at these levels in the early 1980s after continued exposure to high volume sound (discussed below).

Drastic Classicism is noted for combining rock elements: instrumentation, mood (aggression), and rhythms, with a minimalist-derived approach:

He doesn't use the shape of a rock song – its chord progressions, chorus-and-verse structure, three-minute length – or the melodies and lyrics that one would expect in rock. Instead, he puts the rock elements into a “serious” framework, a repetitive, non-dramatic, non-melodic structure.⁷⁹

Correspondingly, Alan Licht affirms that *Drastic Classicism* was ‘the closest approximation of No Wave to be found in the annals of modern composition’.⁸⁰ As my critical reading will now detail, *Drastic Classicism* synthesises rock-influenced avant-garde music and the popular avant-garde of underground rock in a post-minimalist composition.

Performance directions for *Drastic Classicism* were written up after the fact to facilitate a performance of this work by an ensemble without Chatham or his tuning skills, for Armitage’s dance company. These directions provide evidence of the increasingly complex structure of this non-notated work, which is around ten minutes in duration (*Figure 6.6*).⁸¹

⁷⁹ Billy Bergman and Martin Horn, *Recombinant do re mi: Frontiers of the Rock Era*, New York: Quill, 1985, 101.

⁸⁰ Alan Licht, ‘The No Wave Primer’, *The Wire*, Issue 225, November 2002, 40.

1. SCORE
Tempo - quarter note = 168-176
Time signature: 4/4

1. Chord 32 bars of 4/4
2. Drum break: 4 bars
3. Chord: 16 bars
4. RC one string – Solo on low D: 8 bars
5. Chord: 8 bars
6. RC tremolo + rhythm guitars: 8 bars
7. Funky stuff section + RC rhythm: 16 bars
8. Chord: 32 bars
9. RC one string solo (middle D): 16 bars
10. Add other guitars on their middle string (one string solo) (Db, Eb, and E): 32 bars
11. RC solo, go out of time on low D string (much slower) do this for a time and then...
- A moment of silence.
12. Chord (a tempo) 64 bars (think of it as 2 x 32 bars)
13. RC major second solo: 16 bars.
14. Crescendo (with other 3 guitars): 8 bars
15. RC major second solo: 8 bars
16. Crescendo (with other 3 guitars): 8 bars
17. RC minor 2nd chord with accents every 4 beats: 8 bars
18. Funk section: 16 bars
19. Final chord: 64 bars
20. End on a final down. Let the chord ring into silence.

Figure 6.6: *Drastic Classicism* (1981), undated performance directions.

This composition is more intricately structured than the composer's previous non-notated music (and it prefigured the notated work that he would compose from 1982 onwards). It uses subsections structured around units in multiples of four bars, with Chatham cueing the changes with his left-hand (*Figure 6.7*). At times, all four guitars play open-string 'chords', while in other sections; Chatham plays a one-string 'solo' on his own, or accompanied by the other guitars playing an eighth-note chord. The 'solos' consist of the guitar extemporising the

morphology (overtone structure) by using node points, and rhythmic variations of a note/s played upon open strings. As with all the composer's work for electric guitars, the music is played with a clean sound, i.e., with no distortion or effects added to the guitars.



Figure 6.7: Chatham and ensemble perform *Drastic Classicism* at The Kitchen on 17 April 1981 (Paula Court).

The work opens with a 'chord' section, for thirty-two bars, that allows the performers' interpretation. Firstly, their choice of dot-position influences the morphology of the primary tonal centres. Secondly, the strumming technique alternates between an eighth-note and *tremolando* pattern. The composer states his intention with these voluminous 'chord' sections,

[They] should not be thought of as a wall-of-noise. Unfortunately, they come off this way in the recording, but in the live performance, the sound was much more translucent. The overall impression should be that of many melodies being played at the same time, choirs and choirs of angels singing.⁸²

It is significant that the composer professes an intent that the acoustics and psychoacoustics act as an ethereal and poetic means to evoke a celestial music through an extremely loud and resonant sound – akin to underground rock – played repetitively over extended durations. This concurs with his desire to reflect, and induce, profound states of consciousness through his art by

⁸² Chatham, *Drastic Classicism* (1981), performance instructions, undated.

synthesising elements from avant-garde and popular music.⁸³

After a short drum break, there is a repeat of the 'chord' section for sixteen bars. This is followed by a one-string 'solo' section where Chatham extemporises upon his low-D string – using a *Guitar Trio* rhythm for eight bars – while the other guitarists play an eighth-note pattern using all six strings (*Figure 6.8*).

The musical score for Figure 6.8 is presented in two systems. The top system is for 'Rhys' gtr' and 'Gtrs 2,3,4'. The tempo is marked as quarter note = 168. The key signature has one flat (B-flat). The time signature is 4/4. The 'Rhys' gtr' part consists of a single eighth-note line on the low D string, with a '5' above the first measure. The 'Gtrs 2,3,4' part consists of a sixteenth-note pattern on all six strings, with a '5' above the first measure. The bottom system is for 'Rhys' gtr' and 'Gtrs 2,3,4'. The 'Rhys' gtr' part consists of a single eighth-note line on the low D string, with a '5' above the first measure. The 'Gtrs 2,3,4' part consists of a sixteenth-note pattern on all six strings, with a '5' above the first measure.

Figure 6.8: *Drastic Classicism*, one-string solo with open six-string chords.

Then, following another 'chord' section where all guitarists play *tremolando* for eight bars, Chatham plays *tremolando* using the highest four open strings: D, E, E^b, D, while the other guitars play eighth-note accents, identical to the above figure. Thereafter, improvisatory interlocking rhythms predominate for sixteen bars. In this section, Chatham 'plays a funky rhythm in 4/4, the other guitarists make other rhythms to counterpoint off it, and make the overall rhythm quite complex'.⁸⁴ This is followed with a reprise of the opening 'chord' section.

After another sixteen-bar 'solo' from Chatham on the open D-string (fourth string), the other guitarists enter, and then, perform a one-string 'solo' using their fourth strings: D^b, E^b, and E, respectively, with a gradual *crescendo*, with each player's entrance staggered every eight bars. The next section opens

⁸³ Moreover, as noted thus far in this research, these sublime states have overlaps with, and parallels to mystical and religious experiences.

⁸⁴ Chatham, *Drastic Classicism* (1981), performance instructions.

with all players dropping out, except Chatham, who performs a one-string 'solo' *ritardando*, before a *decrescendo* to momentary silence. Immediately following this, there is a sixty-four-bar 'chord' section where players alternate between eighth-notes and *tremolando* rhythms, adjusting the timbre and waveform by playing various configurations of their open strings. Then, Chatham plays a major second 'solo' using open D- and E-strings for sixteen bars. A *crescendo* alters the dynamic of the ensemble over eight bars, from quiet to extremely loud.

Following another major second 'solo' by Chatham and then another eight bar *crescendo* by the ensemble, Chatham performs a minor second chord *tremolando*: D, E ♭, E, and D; meanwhile, the other guitarists accent the first beat with two eighth notes, every four beats for eight bars. Another 'funky section' follows where guitarists play 'as precariously as possible within the context of [Chatham's] rhythm and 4/4' leading to teetering metric patterns around the fixed pulse.⁸⁵ Thereafter, a final 'chord' section of sixty-four bars concludes the work.

In performances of this work, the guitars' often lost their precise tunings, due to their propensity to go out of tune when played vigorously. Chatham began to exploit these occurrences to create extra dissonance, going so far as to break strings also, engaging in aggressive strumming – echoing the theatricality of a climactic rock gesture – toward the conclusion of a performance.⁸⁶ After *Drastic Classicism*, the culmination of increasingly complex and dissonant justly-tuned intervals in non-notated music for electric guitars during 1976-1981, the composer largely abandoned the use of the smaller just intonation intervals.

He records, 'we played [*Drastic Classicism*] a couple of times and then I realised why bother tuning it in this special tunings because it goes out of tune in one second the way we were playing it, and so I just tuned it in equal temperament after that'.⁸⁸ Thereafter, he became comfortable switching between equal temperament and just intonation, and his later music for electric guitar would combine aspects of both these tuning systems. Just intervals would

⁸⁵ Ibid.

⁸⁶ See conclusion of 'Drastic Classical Music for Electric Instruments' at the Kitchen', 1981, <https://vimeo.com/76535124>. Accessed 18 April 2015.

⁸⁸ Chatham, in interview with the present author, 2013.

reappear in Chatham's notated works for larger electric guitar ensembles using beat-free tunings corresponding to equal-tempered octaves, fifths, and unisons. His solo and duo performances and recordings would feature a justly-tuned guitar with smaller intervals tuned by ear: D A D C# A D, as used on the *Pythagorean Dream* (2016) recording.

Nonetheless, *Drastic Classicism's* synthesis of classical tuning systems and minimalist techniques derived from the downtown avant-garde with electrifying rock energy produced a radical music. The frisson generated by the loud and sustained volume concurs with the composer's later proposition that powerful listening experiences are comparable to an electric shock, a method he suggests as a way 'to experience electricity through the medium of music: to let it pass through your body in this way'.⁸⁹ Correspondingly, Kyle Gann recalls being 'blown away' by *Drastic Classicism*, 'its minimalism pounded home by electric guitars'.⁹⁰ This synthesis of elements from downtown music (listening aesthetics, minimalist techniques, and tuning system) with New York rock delineates this work from mainstream classical or popular music. In the final section of this chapter, I analyse another of Chatham's drastic compositions for electric guitars and discuss the importance of this work in the context of downtown postmodernism.

6.4 *Guitar Ring* (1982)

In this section, I will detail *Guitar Ring* (1982), a new work for electric guitar that featured on the composer's first commercial album release of his own music *Factor X* in 1983. Thereafter, I interpret the significance of the composer's activity during this non-notated period

Guitar Ring (1982) is a non-notated work for four electric guitars, in equal-tempered tuning, and drums that featured on the *Factor X* recording from 1983 (*Figure 6.9*). Its tonal centre is generated by an E9 chord, which the ensemble strum on their electric guitars over node points along the instrument's neck to

⁸⁹ Chatham, in Girard (director), 'Electricity', 2010, <http://www.youtube.com/watch?v=62ObK67jV7s>. Accessed 23 February 2015.

⁹⁰ Gann, *Music Downtown: Writings from The Village Voice*, 2006, xiv.

elicit permutations, and combinations, of overtone structures. The composer states, 'a rhythmic tension is created between the symmetrical 4/4 meter of the right-hand's picking technique and the more ethereal rhythms of the overtones'.⁹⁴ This work is broadly structured in A B C B D form, and the duration of the recording is just over eleven minutes in length.



Figure 6.9: Chatham pictured on the cover of *Factor X* (1983).

The A section opens with a dissonant arpeggio line of F, B \flat , E, played across multiple guitars in free time. An *accelerando* is used to gradually increase the tempo over one minute. Then, the drums enter, using the toms, and thereafter, the rest of the kit. This percussion part provides a propulsive momentum that combines with the rhythmic strumming generated by the guitarists. This

⁹⁴ Chatham, liner notes to *Factor X*, Moers Music, 1983.

approach creates variation in tempo and timbre until the section concludes on a ringing chord.

To begin the B section, a drum fill leads onto a steady 4/4 backbeat, framing the open-string sounds of the guitars playing an E9 tonality: E, G#, D#, and F#. Guitarists use a rhythm similar to the *Guitar Trio* motif at this point (*Figure 5.8*, Chapter Five). A dissonant sound is created in this passage by the guitarists, whose relentless eighth-note strumming at node points explores the morphology of the tonal centre. The end of the B section uses a lengthy *rallentando* – approximately, two minutes in length, on the recording – before the drums drop out, and the ensemble transitions to the C section.

Following this, the musical texture thins out with a figure that alternates between a B and E pitch on the open second- and first-strings, respectively. This chiming, open-string sound contrasts with the relative dissonances of the preceding two sections. This is followed by the addition of the tonal centres B and F# played in a syncopated chordal style to imply a polyrhythm of 4:3. Thereafter, an implied E9 tonality is sustained and layered atop the preceding two iterated figures.

Chatham then introduces an elegant and upbeat melodic *ostinato* motif, which is repeated eight times, fretted on the guitar using E, F#, and G# to merge with the prevalent tonality of the passage over sustained drones in B (*Figure 6.10*). This is the earliest recorded example of the composer altering the texture, timbre, and tonality of passages, by introducing short, equal-tempered motifs to inflect the tonal centre, and explore the morphology of the composite sound. Dissonant, crashing E9 chords interrupt the ringing motif to end the passage.

The figure displays a musical score for a guitar piece. The top staff is in treble clef, 4/4 time, showing a melodic motif of eighth-note chords. The chords are: E2 (open), G#2 (open), D#2 (open), F#2 (open); E2 (open), G#2 (open), D#2 (open), F#2 (open); E2 (open), G#2 (open), D#2 (open), F#2 (open); E2 (open), G#2 (open), D#2 (open), F#2 (open); E2 (open), G#2 (open), D#2 (open), F#2 (open); E2 (open), G#2 (open), D#2 (open), F#2 (open); E2 (open), G#2 (open), D#2 (open), F#2 (open); E2 (open), G#2 (open), D#2 (open), F#2 (open). The bottom staff is guitar tablature with three systems: T (Treble), A (Acoustic), and B (Bass). The fretting for the strings is: 0 0 2 2 0 0 4 2 (with a slur over the last two notes); 0 0 0 0 0 0 0 0; 4 4 4 4 4 4 4 4. The final measure of the tablature shows a crashing E9 chord: 0 0 0 0 0 0 0 0.

Figure 6.10: *Guitar Ring*, example of a melodic motif with sustained drones in guitar tablature and musical notation (created by the author).

After a return to the B section, there is a sudden cut off, where all instruments stop, temporarily. A snare hit, at the end of the B section, cues the musicians to begin the D section (coda). This section is a free-time passage of multiple, unmeasured *tremolando* on guitars, with a solo played by the drummer.

Guitar Ring prefigures Chatham's notated work for larger forces of electric guitars that employed fretted melodic motifs, contrasting sections, and polyrhythms. For example, it features melodic fragments that produce a tonally-ambiguous sound with subtly shifting modalities. It has sections without a steady pulse, using *accelerando* and *rallentando* dynamics to create a sense of timelessness. It also uses a steady backbeat to anchor implied polyrhythms. Nonetheless, the textural and timbral aspects of the music are foregrounded by the extended techniques that extemporise overtone structures of the given notes; these microtonal variations inflect the dense, composite sound field, and as such this is characteristic of Chatham's early (non-notated) music for electric guitar from 1977 to 1982.

Chatham's position at this time – at the conclusion of composing non-notated works for electric guitar – professed a new music aesthetic:

My idea was to draw upon the vocabulary of the classical avant-garde to form a music with a rock-like veneer behind which would lie the formal concerns of western art music.[...] Art composers have for some time been accused of being elitist [...] I wanted to make music which would reach an audience on a number of levels.⁹⁶

By foregrounding his identity as a composer, and playing down the role of rock as 'veneer' at the conclusion of this period, Chatham signalled a temporary move away from identifying as a rock musician. Nonetheless, as my reading has outlined, his music for electric guitar included significant rock elements: instruments, musicians, performance style, and techniques. Its appeal to popular musicians' influence would belie Chatham's initial estimation of this music; the avant-garde sensibilities of the work do not diminish its rock elements; these components are transfigured and renewed via synthesis in the artist's work.

Although Chatham resisted playing the role of a rock musician in and of itself, his continued activity in a rock context over the next four decades characterised

⁹⁶ Chatham, liner notes to *Factor X*, Moers Music, 1983.

his music and his public persona as a composer. He later acknowledged the significant rock components of his work, outlining his initial reluctance to designate this music squarely as rock:

I was making pieces for rock musicians in rock spaces using a rock instrumentation that was not-not-rock, and calling it that because I had too much respect for the form. I was doing that because I was being careful: everyone knew I was music director at The Kitchen and what my background was, but I was hoping that the rockers would like it, and I eventually became a rocker myself!⁹⁷

In taking up this position he broadened his activities as a composer and musician to encompass underground rock, which allowed him to remain aligned with an art music tradition, and meant that his music for electric guitar was not judged solely by pre-existing popular music conventions.

Tim Lawrence designates Chatham's activity during this period as 'downtown pluralist'. While the composer would later refute 'pluralism', and its flattening of distinctions between genres during the 1980s, I agree that this theoretical perspective best summates his activities as a protean artist who operated across musical contexts with mercurial fluidity during 1976-1982.⁹⁸ This non-notated music for electric guitar would also contradict the composer's later statement to the contrary, that an artist 'can only work in one genre to do good work'.⁹⁹ Lawrence's identifies downtown's 'radical pluralism' as a movement that departed from conceptions of refined and vernacular art – by eluding these previous classifications and combining aspects of these forms in distinctive and diverse ways – to challenge cultural constructs and societal structures:

The downtown pluralists didn't seek to broaden the terms and conditions of the compositional field via a generalizing embrace of all musical practices as somehow equal and equivalent. Instead they engaged with a broader range of sounds and practices in order to generate specific freedoms, and in so doing they challenged the institutional and commercial structures that supported the idea of discrete genres.¹⁰⁰

In Chatham's case, an individual's freedom of choice – evident in composing, performing, and listening – manifested in radical pluralist music that contested academic and mainstream convention.

⁹⁷ Chatham, in interview with the present author, 2013.

⁹⁸ For more, see Lawrence, 'Pluralism, Minor Deviations, and Radical Change', 2014, 63-85.

⁹⁹ Chatham, 'Composer's Notebook 1990: Toward a Musical Agenda for the Nineties', 1994.

¹⁰⁰ Lawrence, 'Pluralism, Minor Deviations, and Radical Change', 2014, 78.

This focus upon the subjective and the individual coincides with postmodernity in music, and culture more broadly, focusing upon difference and specificity. Chatham's approach had parallels with composers, Laurie Anderson, Peter Gordon, Blue 'Gene' Tyranny, and David Von Tieghem, whose music was coming out of an avant-garde classical tradition and crossing into popular music. Lawrence notes the significance of this musical pluralism:

The radical pluralists didn't accept that genres might be stable in the first place, so instead of proposing some kind of democratic equivalence within the broader cultural and economic status quo, they challenged the very idea of generic coherence and boundedness. As a result their interventions shouldn't be dismissed as amounting to little more than a "minor deviation" that ultimately propped up existing power interests but instead be seen as seeking to bring about a more radical transformation of the musical order.¹⁰¹

Lawrence suggests that Chatham's later, and temporary, disavowal of pluralist practices in the 1980s, 'failed to acknowledge the true radicalism of the moment, as well as the logic that underpinned his volte-face' as he was ultimately 'concerned with preserving his status as composer'.¹⁰²

This is supported by Ned Sublette's argument:

Rhys constantly lampooned the uptightness of music formalism but was at the same time very sincere about formulating composerly statements in a tone of high seriousness [...] but the pluralism of the time was an inspired response to the complexity of [...] existing society, a radical critique of the generic marketplace, and an assertion of freedom.¹⁰³

Certainly, Chatham was entitled to use the term composer as he wished, having trained and worked in the classical arts and downtown composition, a role that was a substantial formative influence on the development of his music for electric guitars. Equally so, he earned the privilege to apply, and extend his experiences as a rock musician in his own music for electric guitar, an assimilation, rather than an appropriation, of popular music. The resulting non-notated work was an idiosyncratic and radical form of musical composition that imploded musical constructs (minimalism and rock) and the boundedness of existing forms and styles of musical composition.

Chatham's musical development illustrates his pivotal role connecting developments from minimalism to post-minimalism. Although the composer

¹⁰¹ Ibid, 79.

¹⁰² Ibid.

¹⁰³ Sublette, in *ibid*.

identified his music with postmodernism, he loosely uses the term 'minimalist' to describe his activities on occasion, which establishes the origins of his musical identity as performer and composer in the downtown, post-Cagean arts. I propose that he was a performer and composer of early minimalism from 1969 to 1974, and, beginning with his exploration of popular music and continuing with his development of music for electric guitar, a post-minimalist from 1975 to the present.¹⁰⁴ Indeed, Tom Johnson reports on this 'generational gap' in downtown composition – broadly speaking between the early minimalists, and the post-minimalists – in his review of the 'New Music New York Festival', which was also curated by Chatham, in 1979:

The older group derived much from Cage and almost nothing from popular culture, while the younger group almost reverses these priorities. While the song form is almost never used by the older composers, it occurred several times in works by the younger ones. While the older group tends to play synthesizers, homemade electronic devices, piano, or other standard instruments, the younger group is more likely to be involved with electric guitars or with some of the performance art trend of the '70s. The influence of Eastern philosophy is far more apt to be felt in the older group, while loud volumes are somewhat more common among the younger.¹⁰⁵

Crucially, Chatham's work had many similarities with the first wave: Cage, Eastern philosophy, non-song structures, and also the second wave: electric guitars, loud volumes, and popular music.

Gendron indicates that Laurie Anderson, Glenn Branca, Chatham, Peter Gordon and so on, represented a second-generation of downtown composers ('post-no wave borderliners') coming after the earlier downtown scene of Robert Ashley, Philip Glass, Meredith Monk, Steve Reich, and Terry Riley.¹⁰⁶ He adds that they 'presented itself in a triangular opposition both to the old downtown and to no wave'.¹⁰⁷ Through his engagement with popular music, Chatham had also partly identified with the no wave scene, and thus, his radical pluralism can be located within this triangular network of relations.

From 1977, Chatham adopted a 'borderline aesthetic' between downtown composition and underground rock, and this continues up to the present

¹⁰⁴ For example, Chatham is listed as part of the original first wave of minimalists in Kyle Gann, Keith Potter, *Ashgate Research Companion to Minimalism and Postminimalism*, 2.

¹⁰⁵ Tom Johnson, 'New Music New York New Institution' (1979) in Johnson, *The Voice of New Music*, 1989, unpaginated.

¹⁰⁶ Gendron, *Between Montmartre and the Mudd Club*, 291.

¹⁰⁷ *Ibid.*

moment (2017). I locate his non-notated work for electric guitar in closest proximity to the second wave of downtown composers, and the SoHo contingent of the no wave, yet drawing upon connections with the first wave of minimalist composers and his classical training. I classify this body of work as an individual form of post-minimalism that synthesises downtown composition with significant elements of rock music.

Concluding Thoughts

I have outlined that these non-notated works for electric guitar synthesise downtown art and rock music elements in a two-way exchange. Analogously, Carl Jung stated of the alchemising process, ‘when two [...] combine, both are altered’, and appropriately, Chatham’s merging of musical elements altered the forms of art and rock in music for electric guitar.¹¹⁴ This radical pluralist music used minimalist techniques to reconfigure elements of rock (similar to minimalism, and compatible with it), and instrumental sounds and performance approaches from popular music to enliven the minimalist material; indeed, it was an individual form of post-minimalism, partly derived from, and located in the context of underground popular music. As well as the individual character of Chatham’s compositions, the music featured participatory modes of listening and performing that emphasised the individual.

Participation in contemporary art can be understood as operating in two distinct modes: the activation of the individual listener/viewer and the social dimension of participation. Claire Bishop identifies these two approaches in participatory art during the twentieth century: ‘an authored tradition that seeks to provoke participants, and a de-authored lineage that aims to embrace collective creativity; one is disruptive and interventionist, the other constructive and ameliorative’.¹¹⁵ Chatham’s work details both of these modes of participation. Firstly, by activating a participant’s subjectivity through the listening processes favoured by the music – that may also include entrainment, frisson, and perceptualization – and seeking to engage and reconfigure subjectivity through

¹¹⁴ Carl Gustav Jung, *The Psychology of the Transference*, London: Routledge, 2013, 16.

¹¹⁵ Claire Bishop, ‘Introduction/Viewers as Producers’ in Claire Bishop (editor), *Participation*. The MIT Press: Massachusetts, 2006, 11.

these experiences. Here, the music, and its physicality, privileges a listener's psychophysiological engagement. Secondly, individual musicians shape the music collectively using a variety of improvisatory techniques – informed by individual choice and difference – in these non-notated (and the subsequent notated) compositions. However, this collective element occurs in the context of a work chiefly authored by the artist. In both cases, when composing, performing, and listening become entwined in these ways, the distance between a participant and the music is reduced.

This aesthetic and practice is in keeping with Hal Foster's critique of '(post)modernist art', where 'any truly critical practice must transform rather than merely manipulate signification, [and] (re)construct rather than simply disperse structures of subjectivity'.¹¹⁶ Hereafter, Chatham's music for electric guitar became increasingly sophisticated as he refined this participatory approach in works for larger instrumental forces, applying an array of processes, strategies, and techniques from a composerly tradition. In the chapter to follow, I examine the first of these notated works for electric guitars to outline how they expanded upon, and refined, his earlier music for the instrument.

¹¹⁶ Hal Foster, *Recodings*, 1985, 6.

Part Three: 1984-2006

***Aesthetics and Practice in Chatham's
Notated Music for Electric Guitar***

Chapter Seven: *Die Donnergötter* (1984-1986)

In the course of this chapter I analyse Chatham's first major notated work for electric guitars *Die Donnergötter* (*The Thundergods*) (1984-1986). I examine the background to this work to investigate the transition between the composer's non-notated and notated periods in his music for electric guitar. I provide a critical analysis of the aesthetic and practical implications of the music, to determine how a scored compositional sensibility was wedded with rock energy and sounds. I foreground the role of composition in this analysis to outline its import for the composer's notated music in the context of his post-Cagean aesthetic.

7.1 *Die Donnergötter*

Notated music first appeared on Chatham's *Factor X* (1983) recording, namely, *For Brass* (1982) for four trumpets, three trombones, tuba, and percussion. This major work used drones and short, interlocking motifs between the instrumental parts, as the composition unfolded through multiple sections, over the course of approximately sixteen minutes. These features prefigured his notated music for electric guitar that would emerge subsequently.

Around 1983, Chatham's identity as an experimental rock musician ('not-not-rock') was temporarily discarded, and he reaffirmed his roots as a composer coming from an art music tradition. He proposes:

The classical avant-garde has long been concerned with expanding musical vocabulary and the definition of music. It has been discovered that the art composer, in addition to having the right to include such devices as serialism, dense timbre, tonality, indeterminacy, and even plain old noise in the sound palette, can also work with such things as world music, ethnic music, and popular music as well. Rather than seeking to continue expanding musical vocabulary, it is my belief that it is now time to take the myriad of sounds available to us, both familiar and unfamiliar, and do something new with them.²

The composer made this statement after several years of work with electric guitars – music that had expanded generic definitions of art and rock – through

² Chatham, liner notes for *Factor X*, 1983.

a musical vocabulary that incorporated many of these aforementioned devices. However, he now sought to create new works firmly in the context of post-Cagean art music, emphasising his identity as a composer by employing a number of idiomatic devices from classical composition.

By asserting the role of composer, Chatham acknowledged his roots in post-Cagean art music, and also affirmed his choice to compose in a way that represented his individual musical interests. Tim Rutherford-Johnson notes that Cage gave postmodernist composers who came after him “permission” to pursue their ideas without fear of ideology’, which ‘enabled many stylistic and technical possibilities, including the use of noise, silence, and a host of “unmusical” materials’.³ Additionally, he observes that, ‘in spite of his use of chance procedures, Cage still maintained the agency and will of the composer; the permission he granted was to composers to assert that agency without fear of reproach’.⁴ This post-Cagean component is explicitly evident in Chatham’s aesthetics and practice, and in his statements asserting his agency as a composer during this period.

Chatham resisted being labelled as a rock musician at this point, insisting, ‘it just wasn’t me’.⁵ This affirmed his formative musical identity as a classical musician, and coincided with him drawing upon that tradition for strategies and techniques to create notated works. Nevertheless, the composer’s post-Cagean position during this period remained on the borderline of art and rock – a liminal territory that he had explored for several years – albeit associated overtly with a new music tradition rather than underground rock.

After several years of exposure to loud sound, Chatham experienced hearing difficulties with tinnitus. This manifested on his 1983 tour of Europe when performing a programme consisting of *Drastic Classicism*, *Guitar Trio* and *Guitar Ring*. He comments, ‘I found out that everything they tell you about loud music is true [...] I couldn’t walk into a room where there was loud music without my ears hurting’.⁶ This condition required that he spend time in complete

³ Rutherford-Johnson, *Music After The Fall: Modern Composition and Culture Since 1989*, 53.

⁴ *Ibid*, 54.

⁵ Chatham, in Bergman and Horn, *Recombinant do re mi: Frontiers of the Rock Era*, 1985, 101.

⁶ Chatham, in Allan Kozinn, ‘The Multiple Epiphanies of a New Age Composer’, 1988, <http://www.nytimes.com/1988/07/28/arts/the-multiple-epiphanies-of-a-new-age-composer.html>. Accessed 18 August 2015.

silence away from loudly amplified music (including, clubs and parties) to remedy these hearing issues, a situation that would bring about a change of direction in his music.

Thereafter, he focused on playing trumpet and composing scored works for brass instruments for a period. He recalls how this led to his development of notated music for electric guitars:

I had noticed that while some music is only possible to arrive at through the use of non-notated music, other music simply must be notated. I therefore decided to write a series of fully notated pieces for brass ensemble. After performing these pieces a number of times, I realized that the next step for me would be to use the techniques of notated music I had garnered from working with brass in the compositional process of making a major work for the guitar band. The result was *Die Donnergötter*.⁷

By 1984, after a brief hiatus from the instrument, he returned to composing with the electric guitar, combining formal methods from a classical music tradition with rock playing techniques and sounds (*Figure 7.1*). From 1984 to 1986, Chatham worked with an eight-piece ensemble using performances – particularly, at the nightclub 8BC in New York’s East Village – and rehearsals to refine *Die Donnergötter*. A poster for one such occasion makes tongue-in-cheek rock references to the ensemble playing selections of Steppenwolf and Blue Oyster Cult material (*Figure 7.2*): at this point, the composer is attempting to play down the importance of the rock aspects of his music by associating it with mainstream hard rock in an ambiguous, humorous, and ironic way. Furthermore, by distancing the work from contemporary underground rock, Chatham reinforces his musical identity as a composer while (ironically) acknowledging the rock components of the composition.

⁷ Chatham, liner notes for *Die Donnergötter (The Thundergods)*, Homestead Records, HMS 120-1, 1987.



Figure 7.1: Chatham conducts his guitar ensemble at Tin Pan Alley Live, Minneapolis, Minnesota on 16 June 1984 (uncredited, courtesy of the composer).

As with his non-notated works, this notated music for electric guitar sextet, bass, and drums, explored dense timbres, sustained over extended durations. However, the increased structural complexity facilitated by the use of a larger ensemble and a score, was accompanied by an increasing melodic sensibility, with polymodal inflections and layered *ostinato* motifs.

It is noteworthy that the ensemble comprised of composers and rock artists also, an indication of the music's cross-genre appeal. For example, the group that made the studio recording featured: Bill Brovold (guitar), Chatham (conductor), Karen Haglof (guitar), Conrad Kinard (bass), Ben Neill (guitars), J.P. Patterson (drums), Robert Poss (guitar), Mitch Salmen (guitar), Tim Schellenbaum (guitar).⁸

⁸ Brovold and Neill were the downtown composers. Ernie Brooks (bass) and Tim Holmes (guitar) also figured as part of the ensemble during this era (see *Figure 7.2* above).

RHYS CHATHAM +
THE VERY MERRY BAND of MEN + WOMAN.

WITH:
 BILL BROVOLD
 RHYS CHATHAM
 KAREN HAGLOF
 TIM HOLMES
 BEN NEILL
 ROBERT POSS
 on guitars,
 ERNIE BROOKS
 on bass,
 J. P.
 on drums.



SPECIAL
 GUEST
 CHOREOGRAPHER:
 YVES
 MUSARD.
 PLUS:
 THE
 MOLTO FORTE
 BRASS & BATTERY
 ENSEMBLE
 of
 NEW YORK.

PERFORMING:
 ① THE FIRST CHORD FROM "BORN TO BE WILD"
 ② MIDDLE PERIOD BLUE OYSTER CULT ENCORE
 ③ SELECTIONS FROM DIE DONNERGÖTTER + OTHER WORKS.

AT
 8 B.C. SAT. 13 APRIL 1985

2 SHOWS
 337 E. 8 ST.
 254-4698

Figure 7.2: Poster for a performance by Chatham and his ensemble at 8BC in New York on 13 April 1985, featuring selections from the work-in-progress *Die Donnergötter* (courtesy of Robert Poss).

During the process of composing the work with this group of musicians, Chatham began to notate the music. Initially, a melody line was transcribed when guitarist Karen Haglof played a motif he had sung to her. In this way, the composer worked with the musicians to draft the score into its final form. This allowed the timbral concerns of his earlier non-notated work to merge with compositional techniques from patterned minimalism also. For instance, he notated *ostinato* riffs and repeating sequences of short melodic units within the context of sustained tonal centres.¹⁰ As a result, a composition of greater complexity, duration, and scope than his previous work emerged.

¹⁰ For example, patterned minimalism such as Philip Glass's *Music in Similar Motion* (1973), Steve Reich's *Piano Phase* (1967), and Terry Riley's *In C* (1964).

While *Die Donnergötter* was being developed, musicians in the downtown scene were freely combining elements of art, improvised music, jazz, rock, and world music. One contemporary account locates Chatham amidst New York composers and musicians who combine art and underground rock, including, Glenn Branca, Fred Frith, Arto Lindsay, Live Skull, Mars, Rat-At-Rat-R, Elliott Sharp, Sonic Youth, and Swans, using the guitar in unorthodox ways to experiment and innovate:¹¹

Their stock in trade is microtonality, tone clusters, half-step intervals and tritones[,] paint-blistering volume, angular phrasing, and an ongoing love affair with feedback and overtones [...] their songs don't exactly swing, rather, they lurch and twitch to an epileptic tempo somewhere between dumpster funk and Black & Decker classical.¹²

The reference here to 'Black & Decker classical' is suggestive of Chatham's work for guitars, an allusion to the use of abrasive and noisy sounds generated by electrical means – hence, the allusion to power tools – in music coming from a classical tradition. In the analysis to follow, I determine how Chatham developed his earlier non-notated style into a notated form that synthesised approaches from a classical tradition: conducting, musical form, organisation of guitars into distinct registers using the tuning system, and scored notation, with a visceral rock instrumental sound.

Die Donnergötter is fully scored in musical notation – comprising individual instrumental parts – for six justly-tuned electric guitars, bass guitar, and drum kit, with Chatham conducting. It is structured into three seamless movements: Introduction, Allegro, and Adagio, lasting around twenty-one minutes in duration. Although its performance energy is informed by rock, the improvisatory performance approaches of his previous work for electric guitars are restricted to the drum part; this comprises improvised cymbal splashes and drumrolls during the opening movement and, thereafter, extemporising patterns within the framework of the given time signatures, while maintaining a steady beat.

This work focuses upon acoustics and perception of minimal musical material, deploying multiple tuning for larger forces of guitarists to perform post-minimal music organised by conducting and scores, yet integrating idiomatic elements

¹¹ Dery, 'The Downtown Sound: New York Guitar '86 (Part 1), The Solo Artist/Composers', 1986, 28.

¹² Ibid.

from popular music. The set-up of a performance differed from the non-notated work between 1977 and 1982: here, Chatham conducts with his back to the audience; three guitarists are on his left (guitars 1-3), another three on his right (guitars 4-6), with the drummer and the bassist placed in the middle of the two groups of guitarists; the stage contains music stands as well so that the performers can read from the scores (*Figure 7.3*).



Figure 7.3: Chatham and his ensemble perform *Die Donnergötter* in Hamburg, Germany on 25 September 1987 (Moni Kellerman).

Die Donnergötter uses a justly-tuned system as follows:

- Guitars 1 to 3: tuned to E, in two octaves,
- Guitars 4 and 5: two A-strings tuned to B, and four E high strings,
- Guitar 6: tuned to E, in two octaves.

This tuning system for guitar ensemble encompasses four distinct registers: approximately, soprano, alto, tenor, and bass (SATB). While the composer did not refer to these groupings in this work, I have identified them as such. In fact, they are a prototype for his subsequent development and use of SATB tuning groups on an orchestral scale in later major works for electric guitar orchestra. Here, motifs are primarily fretted on the strings tuned to the highest of the two pitches to create three distinct ranges, in addition to the bass: guitars 1-3 are

sopranos, with strings tuned to E3 and E4; guitars 4 and 5 are altos (and partly, tenors) with strings tuned to B3 and E4; guitar 6 is a tenor, with strings tuned to E2 and E3. The bass guitar covers the bass range, with E1 as its lowest fundamental pitch.

These tunings build upon Chatham's earlier use of an 'overtone canon' tuning for guitar – essentially, with all strings tuned to a single pitch, for example, E, in multiple octaves to produce prominent overtone content – and apply it to multiple tunings; although, there is a slight exception for guitars 4 and 5, which use a two-pitch tuning, a B3 and E4 tuning that reinforces the overtones of the primary tonal centre E. This sustains the tonality throughout, via prominent use of open-string playing by all guitars.

Early interpretations of *Guitar Trio* had featured an octave tuning with all the strings of the instrument tuned to E in octaves. A historical precedent for this kind of tuning was set by Lou Reed in 1964 when he developed the 'ostrich tuning', where all strings are tuned to one note for the recording of The Primitives, 'The Ostrich' (1964).¹⁴ Reed later used this tuning on The Velvet Underground's 'Venus In Furs' (1967) and 'All Tomorrow's Parties' (1967), along with John Cale's drones on viola.¹⁵

The impulse that led to this work differed from the composer's previous non-notated music. Chatham states that, 'in addition to careful attention being paid to the overall sonority of the composite waveform of the guitars, a primary interest in the making of *Die Donnergötter* was the special emphasis and importance on its melodic content'.¹⁶ Accordingly, guitarists play melodic motifs that use the notes provided by the guitar's equal-tempered frets, and sound open-string justly-tuned drones, concurrently.¹⁷ The resulting music layers chromatic and diatonic tones to add polymodal inflections to the dense timbre emanating from the harmonic-series modality sustained by the tuning system (there are not changes of 'tonality' as such in this work). This approach to pitch organisation characterises this composition and Chatham's notated music, and serves to structure his music, in combination with repetition.

¹⁴ The Primitives 'The Ostrich', *Pickwick Records*, PC-9001, 1964.

¹⁵ The Velvet Underground, *The Velvet Underground*, Verve Records, VLP 9184, 1967.

¹⁶ Chatham, liner notes to *Die Donnergötter (The Thundergods)*, 1987.

¹⁷ For example, guitars 1-3 play their open E-strings and fret the F# pitch in *Figure 7.4* below (bars 10-11).

The modal melodic motifs incorporated into this composition fuse with the dense timbre generated by concurrent open-string playing, to explore modal music reminiscent of the sounds of downtown music (Indian ragas and minimalism) and rock. Notwithstanding this, the music is idiosyncratic and does not fit into either of these categories per se; this is a result of the process whereby the composer alchemised these components.

7.1.1 Introduction

For the opening section of the Introduction, the guitars are deployed to build up the range and volume of sustained notes, while the drummer improvises cymbal washes and drum fills.¹⁸ Initially, guitars 4 and 5 perform an open-string *tremolando* on E4 pitches and B4 respectively, with the drum using cymbals only (bars 1-4). After four bars, guitar 6 and the bass enter with an open-string *tremolando* on E3 and E1 pitches respectively, with the drums entering on full kit (bars 5-8) (*Figure 7.4*).

This massed, *tremolando* playing of the E power chord material (E3, B4, E4) synthesises a rock guitar sound (for example, AC/DC, Black Sabbath, or the Ramones) and improvisation in the drum part, with the drones, overtones, and pure tunings of early minimalism. Unlike Chatham's previous non-notated music for electric guitar, this movement is fully scored, using a set number of bars with specific dynamic markings, and with short melodic fragments on guitar. These elements are amalgamated to infuse the resounding energy and sound of the guitars and drums (especially, evident in the energetic and rapid drumrolls) with a measured, sustained intensity in the orchestrated guitars and bass part.

Despite the prevalence of short interlocking melodic fragments throughout the score, these sound are embedded in the structures of iterated justly-tuned drones – that defines the harmonic organisation of the work – and repetitive rhythmic devices. Additionally, the massed similar voices of the six electric guitars and bass cohere to foreground texture in an ensemble sound distributed

¹⁸ This movement is approximately three minutes in length on the official studio recording of *Die Donnergötter* (1987).

across different registers. Thus, the music is thus characterised by rhythm, texture, and timbre.

At bar 9, guitars 1-3 (soprano) enter, and then exit on Chatham's cue; initially, with a three-bar *tremolando* phrase of E and F# (on the second fret of guitar) on their high strings, followed by a bar where the group remains silent, repeated twice (bars 9-16) (*Figure 7.4*).¹⁹ The extension of this alternating E and F# figure includes a D \natural (bars 17-20), before falling back to E and F# (bars 21-23). The section thereafter turns out to be a melodic extension that incorporates D \natural and C# (bars 25-36) in a slowly, rising figure, before the final eight bars of this section (bars 37-44) repeat the earlier E and F# figure.

A sustained fundamental tonal identity interwoven with iterated modal melodic fragments is characteristic of Chatham's non-notated work, a shared feature with the music of two other of Pran Nath's students Christer Hennix and Henry Flynt. Here, the use of short, repeated melodic motifs from an E Mixolydian scale (E, F#, C#, D \natural , E), played *tremolando*, increases the complexity of the timbre and texture by inflecting the sustained E power chord *tremolando*, held by the other guitarists, and acting as the primary tonal centre (*Figure 7.4*). Each of these melodic fragments in the guitars sound open-string drones concurrently to reinforce the pitch E as the fundamental tonal identity facilitated by the tuning of the guitars and established by the repetition of the tone. This slowly unfolding and iterated melodic line echoes the sonorous, stately sound of Pran Nath's singing; for example, on *21 VIII 76 Raga Malkauns* (1976).²⁰

¹⁹ The fretted notes are played upon the first and second strings in guitars 1-3.

²⁰ See Pandit Pran Nath, *21 VIII 76 Raga Malkauns* (1976), 2011, <https://www.youtube.com/watch?v=esuia43tJUI>. Accessed 23 September 2014. For example, from 0'00" to 1'36" has a similar modal sound, with a limited set of notes comprising the melodic content and a sustained tambura drone.

Die Donnergötter

Rhys Chatham

♩ = 110.72

- INTRO -

Guitar 1-3

4

5

6

el. bass

drums

(tremolo)

f

(cymbals only)

f

enter on full kit

G. 1-3

4

5

6

bass

drums

Figure 7.4: Die Donnergötter, Introduction, bars 1-44 (bars 1-16).

Handwritten musical score for the Introduction of *Die Donnergötter*, covering bars 1-44 (specifically bars 17-32). The score is arranged in two systems, each with six staves. The staves are labeled as follows:

- 1-3: Violin I
- 4: Violin II
- 5: Viola
- 6: Cello
- bass: Double Bass
- drums: Drums

The key signature is three sharps (F#, C#, G#). The score includes various musical notations such as slurs, accents, and dynamic markings. A handwritten '2.' is centered below the second system.

Figure 7.4 (continued): *Die Donnergötter*, Introduction, bars 1-44 (bars 17-32).

Figure 7.4 (continued): *Die Donnergötter*, Introduction, bars 1-44 (bars 33-44).

The voluminous music of *Die Donnergötter* incorporates repeated, patterned figures that augment the music's affective timbral power with an equal-tempered sound. By continuous sounding of E and B pitches in octaves – and their overtones – the guitars' justly-tuned open strings are inflected and, at times, reinforced, by the modal fretted motifs in equal temperament. This produces a plethora of microtonal variations within the ensemble's sound.

This opening section harnesses an amplified sound of formidable density, intensity, and volume that refines the earlier non-notated work, with a notated melodic and modal sensibility. It details how Chatham divides the ensemble into subgroups to interweave short melodic fragments – either two or three notes – with the resonant textural and timbral sounds of open-string playing. The use of slowly unfurling melodic tremolo figures and a sustained tonal centre creates a sense of anticipation and ascendant movement through these sweeping musical gestures. This method of composition reappears in a more complex form in the composer's subsequent notated music, and prefigures a similar approach to instrumentation and orchestration in his large-scale works for guitar orchestra.

To develop a new approach in *Die Donnergötter*, Chatham combined a modal approach distilled from his study of Pran Nath's emotive ragas – designed to provoke feelings of awe through music via sustained tambura sounds and melodic lines – and synthesised it with minimalist and rock components. However, his modal approach does not include the improvised movement between notes characteristic of Pran Nath, nor does it use the modes of Hindustani classical music.²³ The resulting sound is a fundamental tonality sustained of harmonic series tones, enabled by the tuning system, within which modal melodic lines are interwoven into a composite sound wave. The composer's understanding, and application, of minimalism, as a means to reduce music to its essential components, characterises this amalgam of musical forms associated with the use of modalities.

Correspondingly, the music of avant-garde composers, Henry Flynt and Christer Hennix, specifically, 'their hallucinogenic/ecstatic sound environment' (HESE) work, provides a historical parallel with this music for electric guitar. The HESE compositions were Hennix's *The Electric Harpsichord #1* (1976) and *Stereo Piano #1* (1978), Flynt's *Glissando #1* (1979), and *Celestial Power* (1979). These works also used 'modal scales and sensuously appealing timbres which fill the audio spectrum':

The audio programs [musical works] consist of semi-regular processes, but they are multi-layered and micro-irregular, producing variable diffraction effects. The listener's attention is monopolized; the physical vibration is physically felt; the uniformity of texture produces a sense that time is suspended. [...] Not only are the HESE's sensually appealing, they utilize aural illusions which produce logically impossible or unnameable perceptions. The aim is a state of being with no foundation.²⁴

Both of these forms of music are created with the intention that a listener may experience the 'natural highs' of altered consciousness.²⁵ Notably, Chatham and these two downtown composers were all students of Pandit Pran Nath and associates of La Monte Young. Here, it is possible to see a broader tendency in downtown composition to create a physically appealing and participatory music that engages and reconfigures subjectivity.

²³ Chatham's improvised voice on flute and trumpet would use a modal sound with improvised playing akin to Pran Nath's intuitive and improvised extemporization of notes around a sustained tonal centre.

²⁴ The Kitchen Center for Video and Music. 'Press release: Henry Flynt and Christer Hennix concert', 7 February 1979.

²⁵ Ibid.

In Chatham's music for electric guitar, this timbral sound with a noted physicality and affective potential, using modal rather than tonal sounds, is derived from the harmonic series sounds calibrated by the tuning system, not from the major or minor keys, and in the notated guitar works augmented by modality or polymodality (this significant feature of the composer's language will be discussed in greater detail in the chapters to follow). The musical texture of electric guitars is also foreground in all of his works for the instrument by using massed similar voices generating notable acoustic and psychoacoustic phenomena (see earlier discussion of 'pleroma music' too).

His musical language is distinct from these compositions by Flynt and Hennix by virtue of their rock-influenced performance style and sound, steady pulses, and use of compositional techniques (layering, polymetres, etc.). A further distinction is in the form, which is more complex and composed in his notated music; this is distinguished from the simpler forms of his non-notated work – for electric guitars and the earlier work for electronics and gongs – and the HESE music of Flynt and Hennix.

In this way, it is possible to see how structural concerns manifested in increasingly sophisticated compositional form in Chatham's work from his early non-notated minimalist work of the 1970s, through his work with *Guitar Trio* using more complex harmonic structures and compositional forms, up to *Drastic Classicism* and *Guitar Ring*. These developments concur with the composer's view of his own role as a composer-performer. While I find that he increasingly determines the parameters of these compositions for electric guitars, I will nonetheless outline in the coming chapters how, by asserting the role of composer, he used exponentially larger numbers of musicians to perform the subsequent works, and interpret them through improvisation, on a grand, orchestrated scale, in the context of the notated scores.

7.1.2 Allegro

After the Introduction, the work continues directly to the Allegro movement. This movement is in a binary form, containing several sections apiece, with corresponding cues marked in the score as follows: A, A2, B, C, D, D2, E, F, G,

H, I, and I2. The ensemble plays from cues A through G, with H as a first-time repeat. Then, they play cues A2 through G, omitting cue H, and playing the second-time repeats I, and I2.²⁶

Cue A opens with a thirty-two bar *accelerando*, from approximately 72bpm to 144bpm, as the guitars hammer out a loud open-string chord using E and B pitches in multiple octaves, underpinned by bass drum and cymbals (*Figure 7.5*). This massed power chord sound is driven using bass, drums, and guitars to gradually build momentum, and propel the movement forward.

The image shows a handwritten musical score for Cue A of *Die Donnergötter*, *Allegro*. The score is for six guitars and bass. It features a 32-bar *accelerando* section starting at 72 bpm and reaching 144 bpm. The music consists of sustained open-string chords in E and B across multiple octaves. The bass line is marked '8va down'. Handwritten notes indicate 'drums: same rhythm on bass drum, snare & cymbals.'

Figure 7.5: *Die Donnergötter*, *Allegro*, cue A.

This is immediately followed by cue A2, where the drums introduce a steady 4/4 backbeat. From here, the interlocking guitars in eighth-note and half-note rhythms hold sustained pitches, inflecting the E power chord spread across the guitars with the addition of an E/F# dyad, or two-note figure (*Figure 7.6*). In this way, guitars 1-3 (sopranos) are deployed to intertwine and overlay individual harmonic and melodic patterns, combined with open-string playing.

²⁶ For ease of comprehension, I refer to cues (e.g.: cue A) in relation to these sections, rather than bar numbers.

A2 (drums play a backbeat)

The image shows a handwritten musical score for six staves. At the top, there is a boxed label 'A2' followed by the instruction '(drums play a backbeat)'. The score is written in a key signature of three sharps (F#, C#, G#) and a 2/4 time signature. Staves 1, 2, and 3 contain eighth-note patterns, each starting with a forte (f) dynamic marking. Staves 4, 5, and 6 contain quarter-note pulses, each starting with a mezzo-forte (mf) dynamic marking. The bass staff (labeled '6 + bass') also contains quarter-note pulses with an 'mf?' dynamic marking. The score is divided into four measures by vertical bar lines.

Figure 7.6: *Die Donnergötter*, Allegro, cue A2.

At cue B, the tonality is inflected with the addition of the pitch A, along with the notes E and B; concurrently, there is an increase in the interwoven complexity of the fretted melodic content by using guitars 1-3, to repeat three eighth-note dyads apiece. These *ostinato* figures are played over eight bars with the bass and remaining guitars holding down a steady quarter-note pulse around the harmonic structure established by the tuning system (*Figure 7.7*).

Figure 7.7: Die Donnergötter, Allegro, cue B.

Cues C and D divide the music across the guitar parts, encompassing a scored solo in the context of a 3:4 polymetre (Figure 7.8). Here, guitar 1 plays a scored melody, using B, C#, and D \sharp in 4/4, guitar 2 plays a quarter-note, one-bar *ostinato* in 3/4, and the remainder of the ensemble maintain a quarter-note pulse using E. These motifs continue into cue D, where a sustained E *tremolando* in guitar 6 strengthens the tonal centre, thereafter, joined by more *tremolando* playing from guitars 4 and 5, in cue D2 that reinforce it further, and generate resonant timbral sounds. While the guitar solo continues, a jump of a perfect fourth to A in the bass inflects the work with a subdominant tonality suddenly; this creates a dramatic shift from the bass guitar holding the E note predominantly throughout, before it returns back to playing its lowest note again.

C (Guitar 1 Solo)

1

2

3

4

5

6 + bass

1

2

3

4

5

6 + bass

repeat to letter

keep repeating through section C

Figure 7.8: Die Donnergötter, Allegro, cue C.

These arrangements facilitated by the score give dynamic interest to the melodic, polymodal, and polymetric elements initiated at the outset of cue C. In addition, the amplified sounds generate resonant overtone content around the

tonal centre that blend, and interact, with the modal melodic lines. The clean, elegant modal figures in this passage are indicative of the stylistic evolution in Chatham's scored music for electric guitars. This sound is composed in a more sophisticated and structured way – by virtue of layering pitches in distinct registers of the guitars facilitated by the tuning, and the resulting microtonal nuances – than in any of Chatham's preceding music. This grouping of the players into specific ranges of the frequency spectrum allows for intricate interlocking parts using open strings that work with the tonal centre, made possible by notating the dynamic, harmonic, melodic, and rhythmic changes in the score.

Cue E is a sixteen-bar break that features an alternating octave leap between the bass and guitar 6 (this is reminiscent of the interlocking rhythms of *The Out of Tune Guitar*, albeit in a regimented, notated form). This offbeat rhythmic interplay occurs after a staccato chord comprised of E, A, B pitches is sounded on the first beat of the first and eight bars by the rest of the guitars in the ensemble (*Figure 7.9*).

Figure 7.9: *Die Donnergötter*, Allegro, cue E.

This section creates a short rest for the guitarists in the ensemble while the rhythmic pulse is maintained, and varied. As such, it is possible to see how the steady pulse is used to structure the harmonic and melodic material created by the tuning system (with chromatic and diatonic additions), keep up the rhythmic intensity, and provide continuity in the movement. This insistent and steady pulse sets up the polymetric section that follows.

At cue F, three guitar parts interweave together using staccato open-string playing to spread an implied, gradually ascending figure across guitars 2, 4, and 5 for sixteen bars. The first eight bars are in a 3/8 time signature, with each guitar assigned a beat to strum the staccato pitch material: guitar 5 on the first beat, guitar 4 on the second beat, and guitar 2 on the third beat (*Figure 7.10*).

The image shows a handwritten musical score for three guitar parts, labeled 2, 3, 4, and 5. The music is in 3/8 time and features staccato open-string playing. Guitar 2 plays a sequence of chords on the third beat of each bar. Guitar 4 plays a sequence of chords on the second beat of each bar. Guitar 5 plays a sequence of chords on the first beat of each bar. Guitar 3 has rests throughout the section. The key signature has three sharps (F#, C#, G#). The score is written on four staves, with the first three staves corresponding to guitars 2, 3, and 4, and the fourth staff to guitar 5.

Figure 7.10: *Die Donnergötter*, Allegro, cue F, interlocking guitar parts in 3/8.

Thereafter, the time signature shifts to 2/4 time, with guitars 5 and 4 still playing, on the first and second beat respectively, and with guitar 2 sounding on the second beat of the bar using quarter and eighth notes (*Figure 7.11*). This

passage outlines how the score assists a performance, especially, of tightly interwoven minimalist derived pitch and rhythmic material.²⁸

The repetitious rhythmic complexity is augmented by polymetres to raise the intensity of the material overlaid upon the steady pulse. Cue G repeats the material from cue C (see *Figure 7.8* given previously) but introduces an interlocking 3/8 metre using E and B pitches, in guitars 4 and 5, respectively, against the steady 4/4 pulse. The rhythmic vitality of this movement depends upon the ensemble 'locking in' together, to play off the pounding backbeat, and one another. The notated material – typically, short melodic units or sustained chords – is imbued with a rock energy by the improvised fills of the drummer, and the sound of the guitars and bass playing at a fast tempo and a high volume.

Figure 7.11: *Die Donnergötter*, Allegro, cue F, interlocking guitar parts in 2/4.

Chatham's extension, intensification, and modification of the rock climax are evident in the new material of cue H (*Figure 7.12* indicates the resulting texture).

²⁸ *The Out of Tune Guitar and Drastic Classicism* used similar interlocking guitar parts, although those were looser, improvisatory rhythms in the context of the non-notated works.

This cue shifts the texture to unmeasured *tremolando* playing on all electric guitars, a dynamic, morphologically complex, and resonant timbral sound that is sustained over twenty-four bars.

Around the open-string E tonal centre, guitars 1, 2, and 3 use the E Mixolydian mode: E, F#, B, C#, D \flat , E, while guitars 4-6 contribute open-string drones, along with fretted notes corresponding to the Mixolydian material played by guitars 1, 2, and 3. This practice places greater emphasis upon equal-tempered inflections within the structure of the fundamental tonality in music that surges at a lightning pace.

Following cue H, the score instructs the performers to play through cue A2 through G again, a repeat that doubles the length of the Allegro movement to approximately ten minutes in total. The repeat of cue A2 through G emphasises the use of a minimalist technique of repetition used in the composition on a large scale; it structures the pitch and rhythmic material on smaller, bar-to-bar basis also.

After the repeat of cue G, the ensemble moves to cue I where massed, *tremolando* ascend steadily in pitch. This intense sound, suggestive of ascension, is a characteristic of the movement, and Chatham's notated music for electric guitar. This passage is similar in texture to cue H, yet, the tonal centre expands to encompass chromatic notes: G \flat , A#, and D around the E tonal centre (*Figure 7.12*).

Figure 7.12: *Die Donnergötter*, Allegro, cue I.

After a brief passage where the bass and guitar 6 change to A (see the second repeat of the final four bars, *Figure 7.13*), and what seems a significant tonal shift in the context of the work, the final repeat returns to the E tonality at cue I2. After the implied shift in modality caused by the subdominant shift, a sixteen-bar passage of massed *tremolando* figures concludes the Allegro. In this final cue, three rising motifs in guitars 1-3 generate a sense of intensification in contrast with the static chords of guitars 4, 5, and 6, before a resounding E and B open-stringed power chord rings out (*Figure 7.13*).²⁹

²⁹ This movement occurs from around 3'09" to 13'44" on the official studio recording of *Die Donnergötter* (1987).

Figure 7.13: *Die Donnergötter*, Allegro, cue I2.

Guitarist Robert Poss recalls ‘transcendent moments’ performing *Die Donnergötter* with Chatham in Austria, Germany, and Holland in 1987:

At a certain high volume, the overtones of the massed open-tuned electric guitars seemed massively symphonic and the individual parts melded into some sort of molten mass of overtones and moving harmonies. One could leave the awareness of what one was playing - the individual performer’s part - and feel immersed in a whole far greater than the sum of the parts. I find these moments to be magical, almost spiritual.³⁰

³⁰ Poss, interview with the author, 2014 (see Appendices).

This account affirms that the affective and immersive potential of high-volume sound, and its timbral quality can evoke sublime states of consciousness. Although Poss is discussing his experience as a performer, there is a cross over into listening: these massed *tremolando* sections generate loud resonant timbres – comprised of drones, shifting polymodalities, and overtones – that activate perceptualization impulses and, potentially, entrainment and frisson.

Similarly, a critic's account of this music connects the overtones, repetition, steady pulses, and volume of this music, with a potential to move a listener profoundly:³¹

Amidst the often cacophonous din of a Rhys Chatham performance the harmonic overtones come to the fore and stay there. They assert themselves with a driving beat, gaining in nuance with each upward notch of the amplifier. If his works are repetitious, they are also incantory, pieces such as *Die Donnergötter* weave a magic spell comparable to the verse of Whitman or Ginsberg. Like a freak show, his music of annihilation attracts as powerfully as it repels; it is grotesquely beautiful and delightfully obscene.³²

The listening experience is connected with a ritualistic power ('incantory'), a facet of this music that I propose is associated with activating autonomic nervous system. This aesthetic is concerned with the affective (and poetic) quality of music and its capacity to evoke an intensity of emotion; as noted previously, 'the uncharted territory of musical experience [...] how music feels'.³³

Correspondingly, the composer states of his intent with this body of work for electric guitars:

What I attempt to determine in these pieces is how to best use the new sounds and forms available to us in a way [...] that directly engages their source in a way which transcends original musical meaning while at the same time imploding it, to such a degree that meaning is no longer possible or even desirable, but rather exactly the reverse: to initiate a rite of decimation of musical meaning and thought in order to partake of the fascination which results from daring such a thing.³⁴

³¹ For example, Professor Ted Coons identified this as a key factor in the Electric Ear's success (Chapter Two). See William S. Burroughs' identification of rock's evocative consciousness-altering potency in live performance through identical means hereafter also (Chapter Eight).

³² Julia Szabo, 'Rhys Chatham: Rhys' Pieces', *EAR Magazine*, Volume 13, Number 10, February 1989, 36.

³³ DeChaine, 'Affect and Embodied Understanding in Musical Experience', 2002, p. 84.

³⁴ Chatham in Anon., 'Dead Angel shouts to be heard over the guitars: blabbing with Rhys', 1996, http://www.rhyschatham.net/nintiesRCwebsite/Recent_Interview.html. Accessed 1 August 2015.

His practice explicitly draws upon the capacity for music to privilege sentience over pure reason, opening up a liminal space between experience and language; these sublime dimensions of music are evoked by calibration of an amplified and resonant composite sound wave of great density and volume, sustained over extended durations, in *Die Donnergötter*.

Significantly, Kiene Brillenburg Wurth establishes that the musically sublime is, 'very strictly speaking, not a feeling or an emotion but precisely an *affect* that hovers in an undecidable, in-between space'.³⁵ This immanent evocation is of perception itself, the source of a listener's ability to perceive, foregrounded through the experience of the music. It is in this sense that Seigworth states, 'more than consciousness and more than emotion, it is affect that gives us our "sense of being" or, even better our sense of "being alive"'.³⁶ Similarly, Shouse contends that,

Music provides perhaps the clearest example of how the intensity of the impingement of sensations on the body can "mean" more to people than meaning itself. [...] The pleasure that individuals derive from music has less to do with the communication of meaning, and far more to do with the way that a particular piece of music "moves" them.³⁷

This experiential knowing – that evokes individual, personal responses – is a key aesthetic in Chatham's body of work for electric guitars.

I relate this evocation of sentience to the analogous concept of an animating principle, psyche, or soul. In this way, *Die Donnergötter* has the potential to create strong individual listening experiences in the context of a live performance. Maya Deren affirms the capacity of art to actualise these ritual engagements:

The ritualistic form treats the human being not as the source of the dramatic action, but as a somewhat depersonalized element in a dramatic whole. The intent of such depersonalization is not the deconstruction of the individual; on the contrary, it enlarges him beyond the personal dimension and frees him from the specializations and confines of personality. He becomes part of a dynamic whole which, like all such creative relationships, in turn, endow its parts with a measure of its larger meaning.⁴²

³⁵ Kiene Brillenburg Wurth, *Musically Sublime: Indeterminacy, Infinity, Irresolvability* (New York: Fordham University Press), 175.

³⁶ Gregory J. Seigworth, 'Sound Affects', *13 Magazine*, December 1995, 22.

³⁷ Shouse, 'Feeling, Emotion, Affect', 2005.

⁴² Maya Deren, *An Anagram of Ideas on Art, Form, and Film* (New York: The Alicat Book Shop Press, 1946), 20.

In Chatham's work, the ritual aspect is part of an evocation of the postmodern, immanent sublime. It draws subjectivity into an experience best delineated by the question: '*Is it happening?*'; here, there is no overarching metanarrative, instead, a multiplicity of meanings and differences are evoked, yet none are final, or total.⁴³

7.1.3 Adagio

The whimsical designation of Adagio as the title of this movement highlights Chatham's willingness to play with expectations of established (in this case, classical) forms and style. As the last chord of the Allegro rings out, a two-bar drum pattern in 4/4 (around $\text{♩} = 128$) segues into the final movement, and sets its lively tempo. Although the music is played at a fast tempo, pitches move at a much slower pace in guitars 1-4 (i.e.: the soprano and alto ranges), and are sustained over bar lines frequently (see *Figure 7.15*).⁴⁴ This section is approximately seven-and-a-half minutes in length, comprising non-repeating sections (the analysis to follow uses bar numbers).⁴⁵ The music is, again, structured using the tonality of the just-tuning system and repetition, with a rock backbeat featuring prominently in this movement as the means to energise and organise the layers of sound around a steady rhythmic framework.

A 3:4 polyrhythm is immediately established at the outset in an E Mixolydian mode, with a staccato bass part and guitar 4 both playing an implied triple metre – iterated dotted quarter-note rhythms – with the bass drum (*Figure 7.14*). Following this, guitar 5 enters from bar 16, syncing with the 4/4 pulse maintained by the drummer's hi-hat.

⁴³ Jean-François Lyotard, 'The Sublime and the Avant-Garde' (1984), Jean-François Lyotard, *The Inhuman* (translated by Geoffrey Bennington and Rachel Bowlby) (California: Stanford University Press, 1991), 99.

⁴⁴ Chatham titled another lively movement in *An Angel Moves Too Fast to See* (1989) as an Adagio, because of the tempo of the melodic line (see analysis of Movement 4 in the next chapter of this thesis).

⁴⁵ This movement occurs from 13'45" until 21'48" on the studio recording of *Die Donnergötter* (1987).

♩ = 128

El. Gtr. 1-3

El. Gtr. 4

El. Gtr. 5

El. Gtr. 6

El. Bass

Drums

mf Guitar 4 & bass count it! the bass drum.

(Play staccato throughout)

mf 3 against 4 rhythm with high hat.

Figure 7.14: *Die Donnergötter*, Adagio, bars 1-6.

The melodic line of guitar 5 changes notes at a faster pace than the instruments that have established the 3:4 rhythm, and injects the movement with an urgency; a sense of movement is created by the use of disjunct motion in this guitar part (see *Figure 7.15*). Thereafter, guitars 1-3 enter together with an ascending *tremolando* figure, using all open strings in guitar 6 (bars 32-40). Following this, Chatham assigns individual parts to guitarists or subgroupings of guitarists, a contrast with the impact of the forceful *tutti* playing that the ensemble reverts to on occasion. In this manner, Chatham weaves *tremolando* lines of alternately descending and ascending figures in an E Mixolydian mode using a grouping of guitars 1, 2, 3, and 5 against the 3:4 polyrhythms in guitar 4 and the bass, underpinned by the static *tremolando* of guitar 6. For instance this occurs in bars 41-51 (shown in *Figure 7.15*).

Musical score for bars 41-48 of *Die Donnergötter, Adagio*. The score is arranged for six electric guitars (E.Gtr. 1-3, 4, 5, 6), electric bass (E.B.), and drums (Dms.). The key signature is three sharps (F#, C#, G#) and the time signature is 4/4. The score is marked with a double bar line at the beginning and end of the section.

The notation includes:

- E.Gtr. 1-3:** Treble clef, playing sustained chords with a long note value (likely a whole note or half note).
- E.Gtr. 4:** Treble clef, playing a melodic line with eighth and quarter notes.
- E.Gtr. 5:** Treble clef, playing a rhythmic pattern of eighth notes.
- E.Gtr. 6:** Treble clef, playing a rhythmic pattern of eighth notes.
- E.B.:** Bass clef, playing a melodic line with eighth and quarter notes.
- Dms.:** Drum set notation, showing a consistent rhythmic pattern of eighth notes.

Musical score for bars 45-52 of *Die Donnergötter, Adagio*. The score is arranged for six electric guitars (E.Gtr. 1-3, 4, 5, 6), electric bass (E.B.), and drums (Dms.). The key signature is three sharps (F#, C#, G#) and the time signature is 4/4. The score is marked with a double bar line at the beginning and end of the section.

The notation includes:

- E.Gtr. 1-3:** Treble clef, playing sustained chords with a long note value (likely a whole note or half note).
- E.Gtr. 4:** Treble clef, playing a melodic line with eighth and quarter notes.
- E.Gtr. 5:** Treble clef, playing a rhythmic pattern of eighth notes.
- E.Gtr. 6:** Treble clef, playing a rhythmic pattern of eighth notes.
- E.B.:** Bass clef, playing a melodic line with eighth and quarter notes.
- Dms.:** Drum set notation, showing a consistent rhythmic pattern of eighth notes.

Figure 7.15: *Die Donnergötter, Adagio*, bars 41-52 (bars 41-48).

The image shows a musical score for six instruments: E.Gtr. 1-3, E.Gtr. 4, E.Gtr. 5, E.Gtr. 6, E.B., and Drms. The score is in 3/4 time and features a key signature of three sharps (F#, C#, G#). The piece is titled 'Die Donnergötter, Adagio'. The score covers bars 49-52. E.Gtr. 1-3 has a tremolando line starting in bar 49. E.Gtr. 4 plays a melodic line with slurs. E.Gtr. 5 plays a staccato melodic line. E.Gtr. 6 has a tremolando line. E.B. plays a bass line with slurs. Drms. play a backbeat pattern with hi-hat marks.

Figure 7.15 (continued): *Die Donnergötter*, Adagio, bars 41-52 (bars 49-52).

The tonality shifts toward A again in guitar 6 and bass, for twelve bars, only to return to playing E pitches for three bars and signal the conclusion of the first section of the Adagio (bars 67-80). As the first section of the movement ends, a repeat of this section begins (bars 81-165).

Once more, repetition is used to structure the harmonic material on both a large scale (sectional), and smaller (phrases, bar to bar, within bars) through iterations of pitch and rhythmic content around the harmonic-series-derived tonal centre. As previously, guitar 4 and bass hold the 3:4 rhythm with the hi-hat part, and the drums maintain the backbeat (see *Figure 7.14* previously), before guitar 5 enters with an iteration of the staccato melodic line again (see *Figure 7.15*); following this, guitars 1-3 and 6 re-enter with sweeping *tremolando* lines, dropping in and out, as directed in the score and cued by Chatham. This repeats the gradual layering of metres and implied modal inflections around the E (with B) tonal identity to build the density of sound, rhythmic interactions, and volume.

The sound produced by the equal-tempered fretted notes and justly-tuned open-string tunings in these initial parts of the movement, and the preceding movement build chromaticism and dissonance around the fundamental tonality through the use of equal-tempered intervals and polymodal inflections. This is distinct from his earlier non-notated music that primarily focused upon just tunings and open-string playing. Chatham continued to develop these approaches in his scored works for multiple electric guitars, using increasingly massive musical forces to explore resonant justly-tuned sounds blended with modal motifs encompassing equal-tempered pitches. For example, the polyrhythmic 3:4 of this Adagio movement featured again in the Allegro of his next work, *An Angel Moves Too Fast to See* (1989) using a larger and more complex configuration and orchestration. His role as a conductor in performances of his own music would develop hereafter also, to include the use of a form of organisation that consisted of groups of players led by a number of sub-conductors.

Despite the presence of melodic fragments, it is rhythm, texture, and timbre that characterises the sound of this work. Indeed, a pounding 6/4 rhythm signals the beginning of a new section (from bars 166-202). Six quarter notes in the bass drum are framed against four dotted quarter notes played by the snare drum to create a 2:3 polyrhythm (*Figure 7.16*). Following the lead of the drum's steady pulse, the guitars and bass emphasise these polyrhythms. Guitars 1, 2, 3, 6, and the bass accent the bass drum figure, and guitars 4 and 5 accent the snare pattern (see footnote to *Figure 7.16*). This arrangement combines *tremolando* strumming in guitars 1, 2, 3, and 6, and short *ostinato* figures in guitars 4 and 5. Then, all guitars play *tremolando* to produce an energetic and sustained overtone-laden textural and timbral sound (bars 191-202) of great intensity, before an open-string E power chord rings out to conclude the '2 against 3' section of the Allegro.⁴⁶ This section is played with a driving rock sound in the bass, drums, and guitars, and again, the loudly amplified composite waveform merges modal sounds with an evocative timbre, generating prominent upper partial activity.

⁴⁶ Here, the texture is the same as the Allegro, cues I and I2 (see *Figure 7.12* and *7.13*).

2 against 3 section.,
follow bass drum now.

166

E.Gtr. 1-3

E.Gtr. 4

E.Gtr. 5

E.Gtr. 6

E.B.

Drms.

new quarter note = former dotted quarter

half note = dotted quarter
play with snare drum

new quarter note = former dotted quarter
play with bass drum

166

Change to 2 against 3 rhythm
with bass drum tempo remaining the same as before.
No high hat.

170

E.Gtr. 1-3

E.Gtr. 4

E.Gtr. 5

E.Gtr. 6

E.B.

Drms.

170

Figure 7.16: *Die Donnergötter*, Adagio, bars 166-173.⁴⁷

⁴⁷ Note: there is an error in the score from bars 166 to 202 for Guitar 4. During this '2 against 3 section' the parts are written in 4/4 instead of the given 6/4 time signature. Guitar 4 continues the triple metre figure from the previous section (bars 1-165). See *Figure 7.16* above, from bar 166 onwards.

By building sequences of polyrhythmic patterns around the steady pulse of the drummer, using a limited palette of repetitive pitch frequencies, the resulting music gains complexity, and subtlety from the interaction of these elements. A reiteration of the opening section of the Adagio follows (bars 203-275), before introducing unmeasured *tremolandi* in guitars 1, 2, 3, and 6 (from bar 234) to build up the layers and rhythmic intensity of the music. Thereafter, the movement, and work concludes when the ensemble discharges a resounding E major 9 chord.

I have shown in this analysis how Chatham forged a post-minimalist composition that brought together specific elements from his experiences in minimalism, modal music, rock, and tuning studies. The combination of minimalist compositional devices and popular music instrumental techniques and sound used a decidedly postmodern approach; this reconfigures material from popular culture through an artistic sensibility informed by a Western art music tradition. This is mirrored in the practice of Robert Longo, who created works from popular culture material using his artistic training; this is also evident Longo's *Kill All You Zombies* sculpture pictured on the record sleeve for *Die Donnergötter* (Figure 7.17). As discussed in relation to *Guitar Trio*, there were parallels between Chatham and Longo's work, and also similarities between this aesthetic synthesising 'low' and 'high' culture in Karole Armitage's dance and Michael Zwack's slides, two of Chatham's other collaborators. Peter Cherches thus records that Chatham's 'relentless sonic assault' of guitars, bass, and drums, with 'straddled the worlds of rock and art music'.⁴⁹

Kyle Gann finds this borderline aesthetic in Chatham and composer-performer John Zorn, finding that they are 'on the fence' between musical paradigms, using materials from one musical genre to solve problems in another.⁵⁰ In the context of a classical tradition, this work with electric guitars prefigured a generation of conservatory-trained composers embracing rock; for example, Michael Gordon, David Lang, Mikel Rouse, and Julia Wolfe. Gann observes that, 'more than anyone else it was Rhys Chatham who opened the floodgates

⁴⁹ Peter Cherches, 'Downtown Music III: Downtown Rock After Punk: No Wave and Beyond, 1978-87', 2007, <http://www.nyu.edu/library/bobst/research/fales/DowntownMusic/cherches6.html>. Accessed 17 May 2015.

⁵⁰ Gann, 'Paradigms Lost: Rhys Chatham/John Zorn' (1989), 112.

that allowed rock aesthetics and practices to flow into the “classical” new music world’.⁵¹



Figure 7.17: Rhys Chatham, *Die Donnergötter* (1987) LP.

While it should be noted that rock musicians did not take up conducting and scoring their works as a result of *Die Donnergötter*, nevertheless, the aesthetic, and above all, the sound of Chatham’s music was influential.⁵⁵ Robert Poss states, ‘Rhys Chatham graciously showed me the way back to the essential, to grabbing the guitar by its roots in order to worship at the altar of its overtones’.⁵⁶ Consequently, Poss and his group, Band of Susans recontextualised Chatham’s guitar ensemble sounds in their experimental song-structures, and recording his

⁵¹ Gann, *American Music in the Twentieth Century*, 1997, 298.

⁵⁵ As I detailed in Part Two of this thesis, Sonic Youth admired Chatham’s music and found inspiration for their own music in his work. See discussion of Chatham’s influence on the ‘noise rock’ movement also.

⁵⁶ Robert Poss, liner notes to Robert Poss, *Distortion is Truth*, Trace Elements Records, TE-1022002CD1, 2002.

Guitar Trio.⁵⁷ For example, 'Following my Heart' on the *Now* (1993) album, uses alternate chiming riffs and thunderous clangour to closely approximate the sound of *Die Donnergötter*.

From the mid-1980s, members of rock groups and solo artists: Akron/Family, Band of Susans, Bear in Heaven, David Daniell, Elastica, Flipper, Foals, Godspeed! You Black Emperor, Steve Gunn, Hüsker Dü, Sarah Lipstate, Moloko, Oneida, Sonic Youth, Spacemen 3, Swans, and Tortoise would participate in performances of Chatham's music for electric guitars. His work continues to attract musicians operating in classical, electronica, jazz, and rock contexts. A rock critic affirms the appeal of *Die Donnergötter*:

[A] heroic attempt to get music that appeals to the mind to fuse with music that appeals to the body. [...] This is the real deal; music that rocks out, and proves that the [rock] form can withstand serious analysis and fusion with intellectual ideas without losing its visceral, head-banging nature.⁵⁸

The composer's success in achieving this is noted by contemporary new music organisation Other Minds, who observe that his 'work successfully widens the definition of serious music by gaining the appreciation of a typically divided music community that pits the academic against non-academic'.⁵⁹ Indeed, *Die Donnergötter* displays an aesthetic and practice apart from the concerns of mainstream categories of classical and rock, and their conventions and forms. Thus, John Rockwell also records that Chatham's contribution to music as 'a leader in the fusion of classical experimentation and art-rock that has been so important a part of the vanguard music in the last 15 years'.⁶⁰

Concluding Thoughts

As show in this chapter, Chatham created an individual form of music for electric guitars rock in *Die Donnergötter* by combining elements of post-Cagean downtown composition with underground rock. This music evaded homogeneous categorisations that might confine him to the doctrines of one

⁵⁷ The group released a cover of *Guitar Trio* on *The Word and The Flesh* (1991) album.

⁵⁸ Lord Lucan, 'Unsung: Reviews, Rhys Chatham, *Die Donnergötter*', 2001, <https://www.headheritage.co.uk/unsung/review/396/> Accessed 16 September 2015.

⁵⁹ Other Minds preview of Chatham's *A Secret Rose* concert in 2013, <http://www.otherminds.org/shtml/Sp-Ev-G100.shtml>. Accessed 13 November 2015.

⁶⁰ Rockwell, 'Composer Firmly on the Side of All Genres', 1990.

particular genre, including previous constructions of avant-garde classical composition; moreover, he deviated from pre-established artistic practices to renew artistic practice, one of the main characteristics of avant-gardism. This concurs with his belief in expanding upon his training in an individual manner, 'I didn't reject my classical training: I added on to it [...] building upon Cage's vocabulary, taking it a step further in a postmodernist way'.⁶¹ Geoff Smith identifies that this post-Cagean field is 'one open to any and every approach', and consequently that 'Chatham feels free to combine aspects of experimental [post-Cagean] music and rock music'.⁶² Chatham's post-Cagean and postmodern approach addresses concerns with freedom of choice and individualism, a turn toward the subjective evident in his music: compositions that evidence individual musical taste and aesthetic sensibility, performances that draw upon a performer's subjectivity through improvisation to enrich an interpretation of the work, and listening modalities that actively engage a participant's subjectivity.

The distillation and synthesis of Chatham's aesthetic and practice concur with Rutherford-Johnson's identification of postmodernism's primary impulse to 'select and combine':

Postmodernism's turn toward the subject was encouraged not only by politics but also by the increasing importance of consumer choice (and of choice as a means of identity construction) that arose through the logic of neoliberal economics. Modernism was defined by an active utopianism, often demanding a high cost along the way. Its primary impulse was to create and move forward. Postmodernism encouraged different – perhaps more passive – modes of consumption. Its primary impulse was to select and combine. [...] The guiding ethic is choice rather than innovation. No longer tasked with forging, in modernist fashion, a path toward a shared future, musicians are free to choose from the available possibilities, what best expresses their subjective tastes and desires, or perhaps what they believe best communicates their ideas to an audience.⁶³

To a lesser degree, a modernist desire to 'innovate', to make things anew (informed by a sublime aesthetic) is evident in Chatham's music – building upon the permissions granted to composers after Cage – to expand the boundaries of musical composition and create profound immanent experiences of listening. This is not unexpected, as postmodernism is, after all, an extension of, and

⁶¹ Chatham, in Golden, 'Conversations at the Crack o' Dawn: Rhys Chatham', 1985.

⁶² Smith, *Composing After Cage*, PhD thesis for University of Huddersfield, 1996, 29.

⁶³ Rutherford-Johnson, *Music After The Fall: Modern Composition and Culture Since 1989*, 54-55.

divergence from, the principles of modernism. For Chatham, the autonomy granted by postmodernism resulted in liberation from academicism and convention in musical composition.

However, this breakthrough led to a dilemma of choice for Chatham: 'now that we are liberated from the academy and from asking whether what we do is art or not, what are we going to do with this freedom?'.⁶⁴ Rutherford-Johnson proposes the composer's quandary expresses 'the political and ethical complexities that come with embracing liberation' [...] both the language of rebellion ("liberated from the academy") and that of market-led economic orthodoxy (choice and "freedom").⁶⁵ He also identifies how this duality of rebellion and market-led economic orthodoxy 'has led to opportunities for crossover and intermixing between musical styles and genres.'⁶⁶ The composer's response to the postmodern dilemma of choice was to explore this individual freedom in musical works of increasing complexity, diversity, and scale, informed by an immanent sublime aesthetic (to engage and alter subjectivity). This would include his most audacious work yet, music synthesising his knowledge as an avant-garde composer, and a rock musician, into a massive, concert-length work for hundreds of electric guitars. In the chapter to follow, I will examine how the composer crossed into wider public awareness by foregrounding subjectivity and participation in bold and distinct music.

⁶⁴ Chatham, 'Composer's Notebook', 1994.

⁶⁵ Rutherford-Johnson, *Music After The Fall: Modern Composition and Culture Since 1989*, 55.

⁶⁶ *Ibid.*

Chapter Eight: *An Angel Moves Too Fast to See* (1989)/ *A Secret Rose* (2006)

Chatham's desire to create expansive music for electric guitar would be realised after he relocated to France, in 1987, and secured a commission for *An Angel Moves Too Fast to See* (1989). This work – and its rewrite as *A Secret Rose* (2006) – are analysed and interpreted in this chapter to determine how they addressed the question of what to do with the freedoms created by an avant-garde art music tradition liberated from academicism and convention. I will provide a detailed critical reading of the music – and how it unfolds in performance – to determine how the composer might have achieved this, and what the import of this project might be.

8.1 *An Angel Moves Too Fast to See*

In this section, I outline the main features of *Angel Moves Too Fast to See* (*An Angel*, henceforth) and discuss the composer's aesthetic position thereafter. *An Angel* was Chatham's first large-scale work for one hundred electric guitars, bass, and drums, using a six-movement form in a seventy-minute composition. This was the first composition written for one hundred electric guitars, a work that received its world premiere in Lille, France on 23 November 1989. Kyle Gann records that with this endeavour, 'Rhys Chatham initiated the 100-guitar tradition'.¹

The composer recalls the conception of the project, suggesting that he waited for several years after devising it first in the early 1980s:

I didn't want the piece to rely purely on the visual and visceral impact of massing so many guitars in one place; I felt that I had some more exploring to do. I wanted to make a piece that would truly exploit the compositional possibilities of such a gathering – a literal wall of electric guitars on one stage!

¹ Kyle Gann, 'Metametrics as an Illiteracy Solution' 2006, http://www.artsjournal.com/postclassic/2006/03/metametrics_as_an_illiteracy_s.html. Accessed 14 October 2013.

[...] Rather than relying on a single idea or musical process (as I might have done in the 70's or early '80s), I drew entirely on my musical voice and raw gut to come up with *An Angel Moves Too Fast to See*, which owes as much to my roots as a NY post-minimalist as it does to serious hard rock.²

The large orchestral force is organised through a notated score and conducting, using a number of musical devices: improvised, minimalist, modal, and rhythmic, in combination with a just tuning system, that produces a sonority of amplified and densely layered, resonant frequencies. This use of musical notation determines the fundamental aspects of the musical parameters in this work: amplitude, duration, morphology, pitch frequencies, and structure.

In *An Angel*, the guitar orchestra is divided into four tuning groups to perform its six movements. The three electric guitar tuning groups were divided into six sections using six sub-conductors (sections leaders), with the more difficult material assigned to groups who could read music. These guitar groups are created by restringing the instruments in multiple justly-tuned octaves:

Soprano: all strings tuned to E in two octaves: two D-strings tuned up to E and four high-E strings.

Alto: all strings tuned to A in two octaves: two regular A-strings and four G-strings tuned to A.

Tenor: all strings tuned to E in two octaves: two low E-strings and four-D strings tuned to E.

Bass: E, A, G, D: standard tuning.

This justly-tuned system comprises multiple octave tunings to reinforce the harmonic series, creating a composite waveform of resonant drones and their overtones that informs the harmonic structures in this work, aside from the fourth atonal movement. The bass guitar primarily uses its open E and A strings (sounding E1 and A1 pitches) to underpin the fundamental tonal identity of the guitars.

Chatham's rationale for this tuning system indicates how he sought to synthesise his musical concerns with acoustic phenomena (and attendant listening and perceptual engagement), anti-virtuosity, modal sounds, rock, and sustained timbres:

One is to increase the overtone content 'cause I like to work a lot with the overtones and drones and modal music. Secondly, it puts all the guitars on an equal playing field because most people don't use tunings like this and so everyone is learning a new fingering. It's not a complex fingering but it's

² Chatham, liner notes to *An Angel Moves Too Fast to See: Selected Works: 1971-1989*, 2003.

something new to learn all the same and it sort of makes it more egalitarian. Thirdly, because of the nature of my music I use these tunings because it's very modal, modal in the sense of coming out of North Indian Classical music and modal in the sense of modal rock.⁵

The modal approach, first used in *Die Donnergötter* is evident here also in expanded form, consisting of short interlocking modal melodies, sustained dyads and chords, and rhythmic patterns on multiple guitars. Guitarists in the orchestra play these open-string drones while playing fretted notes on their instruments too, sounding equal-tempered frequencies that interact with justly-tuned drones emanating. This adds chromaticism and dissonance to the harmonic-series-derived timbres at times, and it is deployed in conjunction with improvised procedures to colour passages, and movements, to notable effect. Repetition also structures the pitch and rhythmic material, and other minimalist techniques of composition (stasis, etc.) feature also.

The composer performed *An Angel* in many major cities between 1989 and 1996, followed by a return performance in Nantes, France in 2004. He created two further pieces for one hundred guitars, *Warehouse of Saints - Songs for Spies* (1991) and *Tauromaquia* (1993), in between touring *An Angel* around the world.

By 1993, the composer began to explore improvised trumpet playing that incorporated electronica, as music for electric guitars combining elements of classical and rock was no longer interesting for him. He observes that by this time, 'it had become almost standard practice for composers coming out of a classical context to use rock and other vernacular elements in their music'.⁶ His music for trumpet and electronics from 1993 to 2002 declared a freedom from any one genre of music and affirmed a pluralist approach. Chatham related this pluralist aesthetic position to his understanding of Jean-François Lyotard's *The Postmodern Condition*, where no one form of musical discourse predominated as he moved across avant-garde, electronica, jazz, and rock music. This is outlined in a discussion of his collaborative work with musician, Martin Wheeler:

While we have nothing against music that falls neatly into a specific category, we do not think that one category of music is privileged over another and we

⁵ Chatham, in Noble, 'Rhys Chatham on 100 Guitars'.

⁶ Chatham, 'Academic Discussion of Why Rhys Switched To Trumpet', 1998, <http://www.rhyschatham.net/nintiesRCwebsite/trpt.html>. Accessed 28 August 2013.

certainly don't start out our composing with the intention of our music falling into one style or another, but rather follow our noses and interests in such a way that the rules and conditions of the musical discourse between ourselves and our listeners are not established in advance, but rather emerge in the unfolding of the music itself.⁹

Thereafter, Chatham refused to be categorised as a classical composer or musician per se, stating that 'I've spent the majority of my working life as a musician playing in rock or jazz clubs.'¹⁰ Additionally, he noted how contextual questions were no longer important for him, as they were in the 1970s: 'these days, I'm more interested in simply making music which expresses as fully as possible my wide range of interests'.¹¹ This statement acknowledges the heterogeneity of his musical aesthetic and practice – informed by choice – evident in the radical pluralism of his work for electric guitars also.

After fifteen years of well-received performances of *An Angel* around the world (1989-2004), the preparation time and the production cost involved began to become an obstacle to mounting concert performances. Chatham states, 'I didn't want to lose *Angel* entirely', and consequently, he revised and rewrote *An Angel* as *A Secret Rose* in 2006.¹² In the analysis that follows, I examine performances, recordings, and scores of *A Secret Rose* while making reference to the critical writing, historical accounts, and recordings of *An Angel*.¹³ As well as having access to the scores of *A Secret Rose* to draw upon in this reading, I incorporate my insights from rehearsing and performing this work with Chatham and his collaborators at Town Hall, Birmingham (UK) on 7 June 2014.

8.2 *A Secret Rose*

A Secret Rose is a rewritten and expanded update of *An Angel* for one hundred electric guitars, bass, and drums. It was premiered at the Auditorium Parco della Musica in Rome, Italy on 17 February 2009. The work uses guitars in standard equal-tempered tuning, three section leaders, and a performance can be

⁹ Ibid.

¹⁰ Chatham, in Young, "Rhys Chatham", 1999.

¹¹ Ibid.

¹² Chatham, in interview with the author, 2013.

¹³ Chatham provided the scores for *A Secret Rose*; however, the scores for *An Angel Moves Too Fast to See* are not digitized and thus, were unavailable for the purposes of this research.

prepared with two days of full rehearsals, and a dress rehearsal on the day of concert. It has five movements, and contains newly written material, most evidently in Movement 3. I have created a comparative table below to outline how the general structures of both align with one another (*Figure 8.1*).

Movement ¹⁴	<i>An Angel Moves Too Fast to See</i> (1989)	<i>A Secret Rose</i> (2006)
1.	Prelude	Movement 1
2.	Introduction	Movement 2
3.	Allegro	Movement 3
4.	No Trees Left: Every Blade of Grass Is Screaming	Movement 3: Coda
5.	Adagio ¹⁵	Movement 4
6.	Guitar Cetet ¹⁶	Movement 5

Figure 8.1: Table of comparison for *An Angel Moves Too Fast to See* and *A Secret Rose*.

In *A Secret Rose*, the soprano, alto, and tenor parts from *An Angel* are arranged across three sections of guitarists in equal-tempered tunings, each assigned a section leader: section 1, section 2, and section 3 (*Figure 8.2*). In the analysis that follows, ‘section’ is used only to refer to groups of guitars, and not ‘sections’ of musical structure.

¹⁴ This column shows the original number of movements in *An Angel* for comparative purposes.

¹⁵ Although the 4/4 pulse is played at $\text{♩} = 132$, the melodies created by the interacting cycles of polyrhythmic chords are suggestive of an adagio tempo.

¹⁶ This is the title given to an excerpt of this music on Rhys Chatham, *A Rhys Chatham Compendium*, Table of the Elements, TOE-CD-56, 2002.



Figure 8.2: A colour-coded set-up for *A Secret Rose* live performance: section 1 on stage-left (yellow), section 2 on stage-right (blue), section 3 at the back on stage-left and stage-right (red), and conductor (Chatham), bassist and drummer (green) (still taken by the author from Ed McKeon's footage, 2013 <http://bit.ly/24ChbrF>. Accessed 2 September 2015).¹⁷

A Secret Rose rewrites the melodic motifs of *An Angel* – that combined multiple open-string playing facilitated by the octave tuning on any one instrument – by exploiting the open E- and A-strings in equal-tempered tuning. As a consequence of this rewrite, the sound of *A Secret Rose* is audibly different in comparison to *An Angel*. While the former work uses open-string drones as much as possible, the octave tuning system of the latter has a more resonant sound, due to multiple open-string drones. Nonetheless, *A Secret Rose* merges equal-tempered fretted sounds into a tonal centre of massed octaves and fourths in soprano, alto, and tenor ranges.

Chatham's orchestration of the one hundred guitarists reconfigures the resonant sonorities into an imposing musical form. These sounds are subjected to amplification, extended techniques (nodal playing, sustained *tremolando*), improvisation (including duration, pitch, rhythm and overtone structure of the music), minimal techniques of repetition and stasis, polymetres, and polyrhythms. The notable use of atonal, chromatic, and modal sounds in this work delineate it from his earlier non-notated music for the instrument, and to a

¹⁷ Note: the conductor and section leaders' positions are marked with ovals, the latter are coloured corresponding to their respective sections.

degree, from *Die Donnergötter*, notable for its use of modal sounds but with less chromaticism, and no improvisation.

Musicians are shown lettered or numbered cues by their section leader relating to a corresponding numbered section of the score. The score is augmented with chord diagrams for guitarists to indicate where the notes are played (for example, see *Figure 8.7* below). This allows rock guitarists who may have difficulty reading musical notation to learn and perform the piece more fluently. Movement 3 supplements the score with guitar tablature to facilitate playing a passage, as it employs relatively intricate fretted motifs. As musical notation can prove unwieldy on guitar – where one pitch can be played in several places along the neck – these complementary methods are useful.

In the analysis to follow, I contextualise Chatham's work alongside other artists, including contemporary rock musicians. The bass and drum parts of *A Secret Rose* draw upon rock performance and sound also. This impetus provided by the rhythm section is a crucial component that bassist Ernie Brooks (Modern Lovers) and drummer Jonathan Kane (Swans) also brought to their playing on the earlier *An Angel*. Chatham outlines his method of incorporating rock rhythms through the bass and drum parts:

My work method with any drummer for my rock-influenced pieces has always been to give them a score of the form of the piece and ask them to work within it, in effect composing their own drum parts [...] My approach is the same with bass players: if I like the way they play, I generally ask them to make up their own parts.¹⁸

As these parts are not notated, their preparation consists of working with recordings, and then with the composer, before playing with the ensemble in advance of a performance. These non-notated parts allow the performers to bring their own playing style to the composition, and implement improvisatory rock techniques in relating to accents, dynamics, interplay, and phrasing (something that fully notating these parts would restrict).

Since *An Angel* in 1989, Chatham's method of assembling concert-specific orchestras for performances of his non-notated work for electric guitar has been to use musicians from the locality, and from farther afield, for each concert, in

¹⁸ Chatham, liner notes for *An Angel Moves Too Fast to See: Selected Works 1971-1989*, 2002, 43.

conjunction with a team of his collaborators.¹⁹ In recent years, he prepares musicians for these performances by giving musicians access to an online website containing scores, recordings, and general performance information. In conjunction with this advance preparation, a well-developed rehearsal process facilitated by the local organisers, his manager, section leaders, and technical crew allows a group of one hundred musicians to learn the music in three rehearsals before a concert performance.

For the UK premiere of *A Secret Rose*, the musicians learned their parts firstly, with their section and section leader in one of three groups of around thirty-three people, and then, the next day with the ensemble as a whole; thereafter, there was one full dress rehearsal on the day of the concert. Thus, the revised work simplifies the logistics of *An Angel*, which required six section leaders for six sections of guitarists and five days of rehearsals. This prepares an orchestra, who have never played together, to perform a concert of six movements (with an encore), approximately seventy-five minutes of music. I will now analyse *A Secret Rose* to determine how the composition is realised in performance, and to distinguish if a synthesis of musical elements is evident in its aesthetic and practice.

8.2.1 Movement 1

Movement 1 uses a static tonal centre initially to establish the harmonic-series-derived tonal identity (cues A-D). Thereafter, improvised pitch selections chromatically inflect the music using section leader' and individual's choices (cues E-G). This creates a dense and loud composite waveform, comprised of one hundred individual parts.

The movement opens with a hundred staggered guitar entries using an E2 *tremolando* at cue A. Each of the three section leaders cues an individual from their sections to enter, one guitarist at a time, to build the layers of sound gradually (*Figure 8.3*).

¹⁹ The concert organisers are responsible for recruiting the musicians to form these concert-specific groupings of musicians.

Guitars enter one by one.

Ring, then damp
on conductor's cue.

Section 1

Section 2

Section 3

El. Bass

mf

mf

mf

mf

Figure 8.3: A Secret Rose, Movement 1, cue A.

After cue A has faded into silence, each of the sections is brought in individually as three groups to interweave an E2 *tremolando* for cue B. Section 1 enters and begins a *crescendo* and *decrescendo* (from quiet to loud to quiet); then, section 3 enters with an identical *crescendo* as section 1 *decrescendos*, before section 2 enters with a *crescendo* and section 3 *decrescendos* (Figure 8.4). Cue C then repeats the interwoven *tremolandi* of cue B, with the sections now entering in reverse order (Figure 8.5).

At cue D, the entire orchestra follows Chatham's cue to come in together to perform a double *crescendo* and *decrescendo* to very loud (Figure 8.6). After this unmetred opening, coloured with cymbal washes, the drummer's steady pulse ($\downarrow = 112$) enters at cue E, approximately six minutes into the movement, to provide a solid rhythmic framework for the musical activity to follow.

Ring, SL's damp on drummer's high hat cue.

Entire orchestra follows conductor's cue.

D

Sec.1

Sec.2

Sec.3

El.B.

p *f* *p* *ff*

p *f* *p* *ff*

p *f* *p* *ff*

p *f* *p* *ff*

Figure 8.6: A Secret Rose, Movement 1, cue D.²⁰

From cue E onwards, the sound of rock music is evoked, namely, guitars playing power chords, underpinned by bass, and an energetic drum beat. However, these sounds are reshaped through improvisation and scored strategies that harness the sonic potential of the orchestral configuration, to recontextualise the rock elements in a post-minimalist composition.

At cue E, *tremolando* power chords – E3, B3, and E4 pitches – are layered in section 3, for eight bars initially, joined thereafter by sections 1 and 2 for another sixteen bars (see *Figure 8.7*, chord box for pitch selection '1.'). Then, each section leader cues their choice of pitch selection by using a large card that corresponds to the numbered chords in the score, and guitarists play a *tremolando* chord that corresponds to this number (see *Figure 8.7*).

²⁰ Note: S.L. refers to the section leader in this score.

E On conductor's cue, leaders cue their players from pitch selection: (32 bars total duration)

E1.3

mf

Figure 8.7: A Secret Rose, Movement 1, cue E.1.3 (pitch selections for section leaders) and cues E1.4. and F (pitch selections for individual musicians).

At this point, the orchestra splits into three, for thirty-two bars, with each section playing a chord chosen at random from the pitch selection made by the section leaders. Section leaders cue musicians using numbered cards to indicate where to play the moveable chord shape; for example, a card with '1' means that the section play an E power chord.

This results in the music being inflected by a shift into any three of the eight chords based upon an E Dorian scale, played with an energetic *tremolando* technique, accompanied by a driving rock beat and droning E1 bass pulse. When cued, the entire orchestra then plays any of the previous pitch selections, with a driving rock rhythm in eighth- and sixteenth-notes for thirty-two bars, at cue E1.4. Finally, at cue F, a card marked "*" card is used to indicate that players select chords to play *tremolando* from the pitch selections given in cue E1.3 (Figure 8.7, above) for multiples of four beats to create a chromatic inflection, in combination with the open-string B and E notes played by all guitars.

From cue E, the opening E drones are developed to gradually encompass chromaticism, modality, and power chords. The additional pitches stacked atop the iterated justly-tuned tones gradually become more chromatic as the improvisations of pitch material play out; firstly, between sections, and secondly, between each of the one hundred guitarists in the orchestra. This characteristic *tremolandi* recontextualises a climactic rock gesture, which typically concludes a song, and sustains the intensity and physicality of those high volume, timbral sounds.

One critic reports his impressions of this passage in live performance as ‘all-encompassing, awe-inspiring and utterly terrifying’:

The single huge beast [orchestra] breaks into three, each of which begin clashing, competing and harmonising as they follow their leaders' cryptic instructions [cue cards]. This section seemingly hangs by a thread throughout, with the players never breaking gaze with their section leader, and the crisscrossing chords from each section travelling in all possible musical directions all at once as they collide, harmonise and disharmonise. It's harrowing, beautiful, dissonant and - at times - uplifting.²¹

Another critic noted that this method of improvising ‘set major and minor chords grinding upon each other across the sections, all the more unsettling at a heightened volume’.²² Guitarist, James Barry, describes his experience of performing *A Secret Rose* in Birmingham, United Kingdom (2014) during these improvised cues, ‘we hit upon chord changes that almost took my breath away. At the very least they spread a huge smile across my face’.²³ It is possible to understand how the music generates strong subjective responses through densely layered timbres, with shifting chromatic inflections, played with great intensity and volume.

This kaleidoscopic modal sound is expanded upon with additional chromaticism in the penultimate two-part cue, G. At cue G1, section leaders signal the individual guitarists to choose a chord, as with the previous cue. However, the pitch selections now use an expanded E Dorian scale with chromatic notes, in a fourteen-chord set, diversifying the pitch frequencies generated by the one hundred guitarists (*Figure 8.8*). Again, this section of the composition allows a choice of chord selection, and thus, facilitates a structured improvisation by the ensemble in the performance. This improvisation sees section leaders and players shape the spectrum of pitch frequencies, and the duration of the pitches also, through improvisation. It reaffirmed the role of the individual's persona in shaping the sound, on a massive scale, by creating an indeterminacy of performance that expanded upon the scored orchestration of the musical forces.

²¹ Tristan Bath, ‘Live Report: Rhys Chatham’, 2014, <http://thequietus.com/articles/15549-live-report-rhys-chathams-a-secret-rose>. Accessed 3 September 2015.

²² Sidney Chen, ‘100 Guitars Rock West Coast Premiere of Rhys Chatham’s *A Secret Rose*’, 2013, <http://www.newmusicbox.org/articles/100-guitars-rock-west-coast-premiere-of-rhys-chathams-a-secret-rose/>. Accessed 4 September 2015.

²³ James Barry, interview with the author, 2014 (see Appendices).

E On Section Leaders's cue, individual choice of chord - multiples of 8 beats. (Total Duration G1 32 bars)

Guitarists play pitches from System 2 of Letter G in addition to System 1 pitches.

Chromatic chord choices
(individual players add these pitches in addition to Letter G pitches.)

(System 2 of G1)

Figure 8.8: A Secret Rose, Movement 1, cue G1.

Here, a musician chooses to play notes that may clash with or complement those played by the other musicians. The composition allows for choice and musical difference without the tensions becoming too chaotic because the fundamental tonality of E is sustained through the chord voicings and open-string playing. Regarding the improvisatory element of its performance, section leader, Daniell, states that this selection of pitch material 'is very much about listening', so that a guitarist is aware of whether the players around them are moving around or holding the same chord.²⁴ Thereafter, at cue G2, the ensemble makes a gradual eight-bar *crescendo* from loud to very, very loud, before an emphatic chordal conglomeration rings out after nearly a dozen minutes of unrelenting sound.

At Cue H, an F# minor blues riff serves as a tagline to conclude Movement 1 of *A Secret Rose* (it does not feature in *An Angel*). This motif is replete with glissando and hammer-ons (trills), and a prominent tritone interval from F# to C in bars 1 and 2, characteristic of hard rock and metal (*Figure 8.9*). Players are instructed not to extemporise its rhythm or phrasing. This loud and resonant figure is played by all guitars in unison, and an octave below in the bass, and provides a unified rhythmic and melodic thrust to end the movement. In this way, Chatham combines a rock-influenced phrase into the context of a notated orchestral set-up.

²⁴ David Daniell, in rehearsal at Birmingham Conservatoire on 5 June 2014, ahead of *A Secret Rose* performance on June 7, 2014.

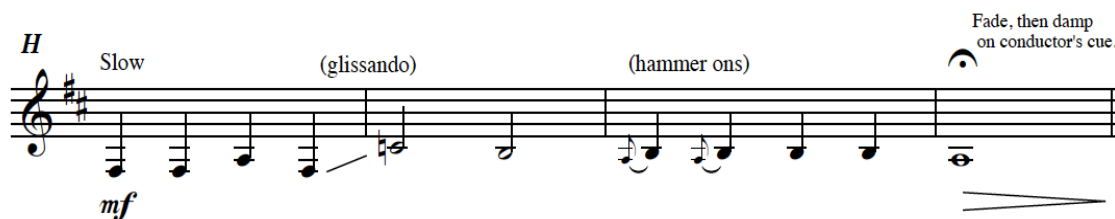


Figure 8.9: A Secret Rose, Movement 1, Cue H.

The style, tempo, and range of this motif is reminiscent of Tommy Iommi's guitar playing with Black Sabbath, particularly on the track 'Black Sabbath' (1970).²⁵ Both of these riffs are characterised by a loud amplified sound, played at a slow pace in the guitar's lowest range, with an emphasis on the tension created by the use of a tritone interval (*Figure 8.10*). However, *A Secret Rose* uses a clean guitar sound. This riff also acknowledges the sound of drone metal groups Sleep and Sunn O))) – both heavily influenced by Black Sabbath's resonant amplified guitar sounds – who Chatham was enthused with when he wrote *A Secret Rose* in 2006. He identified connections between his own minimalist-derived music for multiple electric guitars and their use of extended duration, repetition, sustained guitar sounds, and volume.²⁷

The music of Nadja, the contemporary underground drone-metal duo of Aidan Baker and Leah Buckareff active from 2003 to present (2017), shares musical characteristics with Chatham's musical language also. Guitarist Aidan Baker detuned guitar sound – for example, low-to-high strings: C-G-C-G-G-D – is similar to Chatham's tuning systems for multiple guitars that emphasise just intervals, corresponding to perfect fifths and octaves in equal temperament.²⁸ Baker, and Nadja's style is also characterised by a harmonic language derived from 'natural resonance', realised in intuitive performances characterised by 'flow' through immersion in, and listening to, amplified sound.²⁹ Chatham's work for electric guitars has shared aesthetics with this drone metal music, particularly, the affectivity of amplified resonant guitar sounds emphasising texture and timbre (see discussion below, and next chapter also).

²⁵ Black Sabbath, 'Black Sabbath' on *Black Sabbath*, Vertigo, VO 6, 847 903 VTY, 1970.

²⁷ See discussion of Chatham's harmonic language in relation to rock tonal systems – including drone metal – in the next chapter.

²⁸ Nadja combine this detuned guitar sound with electronics, sluggish tempos, and distant vocals (similar to the noise-rock-derived 'shoegaze' of My Bloody Valentine).

²⁹ Aidan Baker, in liner notes to Various Artists, *QRD: The Guitarists*, Silber Records, MP3s and .pdf files, Silber 154, 2014.

A Intro **A** Intro

Slow Rock ♩ = 67 G5

1. 2.

Thunder, rain and tolling bell
Gtr I *fff*

tr *tr* *tr*

T
A
B

5 4(5) 5 5 4 4

3 3 3 3 3 3

sl. *sl.*

§
G5

7

mf

T
A
B

5 4 5 4

3 3 3 3

Figure 8.10: Black Sabbath, 'Black Sabbath', bars 1-8, prominent use of (descending) tritone intervals from G to C# (courtesy of Essex Music International Inc., New York).

At the time this movement was rewritten, critical awareness of Chatham's pioneering works for electric guitars emerged in connection with contemporary experimental rock groups. One critic states that Earth, Sleep, and Sunn O))) created loudly amplified minimalism that developed the 'squalling massed-guitar orchestrations of Rhys Chatham' using a formula of 'Black Sabbath via Terry Riley, Reich, Young, and so on'.³⁰ Another critic observes how the sound and aesthetic of 'drone metal' music played by 'experimental heavy-metal bands now in vogue [...] echo [Chatham's] innovations'.³¹ The composer replied in kind by setting out with his own drone-based heavy-metal group called The Essentialist in 2006, performing interpretations of *Guitar Trio* and other voluminous guitar-based compositions to audiences across America.

Notwithstanding the occasional turbulent passages in Chatham's body of work for electric guitar, his music has ecstatic and meditative tendencies, in this contrast with the more gloomy catharses of Sleep or Sunn O))). Composer and musician, Bill Brovold, observes this in the composer's drone-metal-inspired

³⁰ Jan Tumlir, 'Primal Dirge' in *Artforum International*, Vol. 44, No. 8, April 2006, 95.

³¹ Steve Smith, 'Where Classic Avant-Garde Gets a Hint of Heavy Metal', 2006, http://www.nytimes.com/2006/09/13/arts/music/13rhys.html?_r=0. Accessed 21 September 2013.

The Essentialist project – featuring members of underground rock outfits Bear in Heaven and San Agustin – by comparing it with the aforementioned groups, noting how Chatham tends to ‘remove much of the inherent darkness [to] instead focus on the liberating quality of sound stripped bare’.³² Another writer notes of a live performance by Chatham’s group in 2006:

Even when Chatham’s music is at its most martial and intimidating, something about the way he leads an ensemble makes it sound ridiculously joyful. No matter how punishing the volume or how strictly mapped the tones, the music is always crowned with a sort of playful shimmering. The overtones seemed to giggle, as I think I might have myself when the silver-threaded gnat notes started floating out of the noise and dancing in my skull—I looked at the three guitarists to see whose hands were moving, and of course no one’s were.³³

Indeed, drone metal recalls his earlier non-notated music – including the high volume effect of dense timbral sounds delivered via intersubjective and improvisatory ensemble playing. These essential components are present in *A Secret Rose* also, albeit in a larger, more complex musical form.

As a guitarist, I derived an intellectual and visceral satisfaction from the energetic timbral music in this movement. A sense of collective endeavour is encouraged by the composition, through weaving together simple individual parts and the use of improvisation; the resulting complexity, density, and volume of sound creates a powerful opening to the work, to bring together the amplified, anti-virtuosic aesthetics and practices shared by downtown minimalism and punk.

8.2.2 Movement 2

Movement 2 combines gigantic chordal motifs, vigorous rock-inspired rhythms, orchestral sweeps of tremolo lines, and improvised passages. The bass and guitars cover specific ranges, using eight- and sixteen-bar phrases to structure

³² Bill Brovold, ‘Middle-age riot’, *Metro Times*, 2006, <https://www.metrotimes.com/detroit/middle-age-riot/Content?oid=2185445>. Accessed 26 June 2016.

³³ Monika Kendrick, ‘Just Three’, *Chicago Reader*, 2006 <http://m.chicagoreader.com/chicago/just-three/Content?oid=923287>. Accessed 20 March 2017.

this relatively brief movement, which is approximately five minutes in length.³⁴ The movement features an irregular rhythm that alternates between playing on the beat and syncopation, and a precisely notated approach that synchronises chords derived from the roots of an A Mixolydian scale, layered with additional chromatic and diatonic notes using the multiple guitars. I outline how the music is realised in performance and examine the role of improvisation from guitarists in this work also.

Repeated guitar chords are accented throughout the movement by the bassist and drummer, with improvised drum fills used also (for instance, at bar 8, *Figure 8.11*). Section 2 play inverted Am chords, changing to a Dadd9 on occasion; section 3A play Am9 chords, alternated with an Asus4(add9); section 3B play single A2 pitches, switching occasionally to E2, and the bass playing this pattern an octave below, giving an E Dorian inflection (see *Figure 8.11*).³⁵ Section 1 play unmeasured tremolos intermittently; the first passage uses Dsus4, Dadd4, and Cadd9 (inversion) chords to inflect the A Mixolydian modality with a D Ionian sound, from bars 17 to 33 (*Figure 8.11*).³⁶ These chords voicings played by guitarists in section 1, 2, and 3A use chromaticism, inversions, and suspensions to create an extremely dense sound in performance, given structure by the syncopated and synchronised rhythms.

Rather than using standard progressions, the composer iterates the limited set of pitch material in massed voicings, lent nuance by variations in rhythm. For example, section 1 introduces modal inflections by interweaving sustained *tremolando* over the repeated material (see bars 1-16, *Figure 8.11*). These guitar parts employ open-string voicings throughout, sounding A- and D-strings along with slow moving 'melodic' *tremolando* lines, and repetitive chords using rhythmic variation. The resulting textural and timbral sound reinforces, and reconfigures the A Mixolydian modality, driven by the hard-hitting, irregular rhythmic impetus of bass, drums, and guitars.

³⁴ Note: section 3 is subdivided into subsections 3A and 3B (notated '3' and '3b' in the excerpts of the score in this analysis).

³⁵ Section 3A play an E/C# dyad at bar 55.

³⁶ Note: bars 1 to 3 show the full chords in sections 2 and 3A; however, the excerpts given afterwards show the root note only to identify which of the two chords is to be played.

♩ = 96

Section 1

Section 2

Section 3

Section 3b

Bass Guitar

(Section 1 plays unmeasured tremolo throughout Part 2)

9

Sec. 1

Sec. 2

Sec. 3

Sec. 3b

Bass

Figure 8.11: *A Secret Rose*, Movement 2, bars 1-32 (bars 1-16).

17

(tremolo)

f

Sec. 1

Sec. 2

Sec. 3

Sec. 3b

Bass

25

Sec. 1

Sec. 2

Sec. 3

Sec. 3b

Bass

Figure 8.11 (continued): *A Secret Rose*, Movement 2, bars 1-32 (bars 17-32).

From bars 41-56, section 1 guitarists introduce a second *tremolando* passage – using A7 (omit 3rd), Esus7, and Dsus4 (inversion) chords – to imply D Ionian and E Dorian modes within the A Mixolydian modality (*Figure 8.12*). This use of layered chromaticism and further implied modalities – via pandiatonicism – in the chordal voicings are evidence of a departure from rigorous adherence to justly-tuned intervals and structures based wholly upon the harmonic series. The use of a Mixolydian modality in these passages brings rock instruments and rhythms together with a sustained tonal centre and modal sounds, and minimalist techniques of repetition.

Thereafter, Section 1 then repeats the first *tremolando* passage, at bars 65 to 80 (see *Figure 8.11* given previously). By repeating sections of the movement, and iterating pitch and rhythmic material throughout, the composer uses repetition as a structural device. This creates contrast by juxtaposing variations in tremolo pitch material, from section 1 guitarists, with syncopated rhythmic framework in the remaining instruments. Chatham describes his method of composing using a steady 4/4 pulse as a framework, ‘although I write with a backbeat, my concerns are those a classical composer addresses, and my method is comparatively formal: I begin by establishing the meter, and put the melody on top of it later’.³⁷ By giving guitarists in each section a limited number of chords or notes to repeat, it also ensures that the musicians who do not frequently play from musical notation can perform the work with relative ease.

An increasing number of electric guitars are massed in these works and an increasingly sophisticated use of compositional devices in the notated works signalled a refinement of the composer’s approach. For example, *Die Donnergötter* had layered fragmented melodies with six guitars accompanied by a bass and rock backbeat on drumkit; however, it lacked the personal inflections provided by individual musicians through rock improvisatory approaches to rhythm, and the improvisation of morphologies, evident in the earlier non-notated guitar works. In *A Secret Rose*, improvised approaches are used to expand upon the fundamental tonal identity established by the tuning, while scored rhythms from guitarists – playing huge chordal conglomerations – reinforce the hard-hitting rock rhythms of the bassist and drummer.

³⁷ Chatham, in Kozinn, ‘The Multiple Epiphanies of a New Age Composer’.

41

Sec. 1

Sec. 2

Sec. 3

Sec. 3b

Bass

4

A Secret Rose - Movement 2

49

Sec. 1

Sec. 2

Sec. 3

Sec. 3b

Bass

Figure 8.12: A Secret Rose, Movement 2, bars 41-56.

Hereafter, an improvised passage is created by the selection of pitch material from section 1 guitarists (bars 81-104). These players choose from six chordal configurations based on two moveable shapes, played *tremolando* using three fret positions (Figure 8.13). These chords – including, Dsus, Am(add4) (inversion), and D major – combine open D- and G-string notes with chromatic pitch selections: D, E, F, G#, A, A#, B, C, C#. This creates a dissonant clash with the iterated A tonality of the orchestra over sixteen bars, a textural and timbral sound of significant density, rhythmic intensity, and volume.

The figure shows a musical score for six parts: Sec. 1 (Guitar), Sec. 2, Sec. 3, Sec. 3b, and Bass. The key signature is one sharp (F#). Above the Sec. 1 staff, two guitar fingering diagrams are shown, each labeled '5fr.'. The first diagram shows a chord with notes on frets 5, 6, 7, 8, 9, and 10. The second diagram shows a similar chord with notes on frets 6, 7, 8, 9, 10, and 11. A note states: 'Either fingering pattern can start on frets V, VI, or VII. Change pattern and/or frets in multiples of 8. Avoid glissandos.' The Sec. 1 staff shows a tremolo pattern of chords starting at bar 81, with diagonal lines indicating the tremolo effect. The other sections (Sec. 2, 3, 3b, Bass) show rhythmic accompaniment with various note values and rests.

Figure 8.13: A Secret Rose, Movement 2, bars 81-88.

After this chromaticism and dissonance, the second sequence of tremolo chords is repeated again to return to an A Mixolydian tonality, including D Ionian and E Dorian inflections (bars 105-121). The movement concludes with a composite chord: an Am9 chord with a Dsus4 added in the higher range, indicative of the composer's tactic of combining modalities concurrently to create highly dense chords.

This movement brings together a compositional sensibility with energy, instrumentation, and a rhythmic impetus strongly reminiscent of rock to create a forceful exhilarating sound. The noisy and syncopated sounds of Chatham's earlier non-notated work – such as *Drastic Classicism* and *The Out of Tune*

Guitar – are evoked here, albeit, scored for larger musical forces, using improvisation, minimal techniques, and modal inflections. At times, the fundamental tonal identity is rendered ambiguous, and shifting chromatic and modal inflections combine with dense layering of resonant pitches, repetition, and volume; a potent combination for an enlivening listening experience. Thus, one critic observed this movement is ‘at times downright tuneful, a series of giant-scale rock instrumentals; at other points, it presented a great vibrating wall of sound that you could feel on the skin’.³⁹

There are assumptions that these large-scale works by Chatham are ‘an expression of machismo’.⁴⁰ However, I dispute these are shows of excessive or aggressive masculinity, and rather, they are egalitarian forms that allows guitarists, regardless of gender or virtuosity on the instrument, to participate. Chatham’s musical language, including his large-scale work, is enriched by the diversity of musical personas, and informed by a degree of choice through improvisation. While he does use very loud volume in a forceful manner at times (less so, post-2000), and early performances of the guitar works were certainly unrestrained, his music foregrounds a participant’s subjectivity – as listener, performer, or both – alongside his own ebullient persona. Glenn Branca’s musical persona as *enfant terrible*, and his explicit assertion of the will of the composer to control his guitar symphonies, in a manner akin to classical symphonists (Anton Bruckner, Gustav Mahler, Richard Wagner, etc.), embodies this kind of machismo more explicitly, and notably, omits improvisation and indeterminacy for performers.

It could be argued that the forces used by Chatham in this, and subsequent orchestral works for electric guitars are Mahlerian; yet, the manner in which the musicians are deployed draws upon downtown music and rock, this includes the use of improvisation whereby a performer’s playing shapes an interpretation of the music. Indeed, this reflects Chatham belief that ‘the point is not to reject Cage and go back to Mahler, but to *build* on Cage’, a reference to Branca’s aforementioned guitar symphonies, and his departure from Cagean principles of indeterminacy and performer participation in his work.⁴¹ In regards the intended

³⁹ Chen, ‘100 Guitars Rock West Coast Premiere of Rhys Chatham’s *A Secret Rose*’, 2013.

⁴⁰ Rutherford-Johnson, *Music After The Fall: Modern Composition and Culture Since 1989*, 194.

⁴¹ Chatham, ‘Composer’s Notebook 1990: Toward a Musical Agenda for the Nineties’, 1994.

overall effect however, both Branca and Chatham seek to elicit ecstatic experiences through amplified harmonic series sounds played by multiple guitars over long durations. However, the compositional and performances approaches by which they evoke this differs according to the degree of their extension of (Chatham) and divergence from (Branca) a Cagean avant-garde tradition of composition.

8.2.3 Movement 3

Movement 3 also has a modal sound using a chordal palette alternating an A Mixolydian mode and an A7 chord with suspensions, with passages using the E Dorian mode also. The composer states his intention was to create 'happy, joyful' music and that, 'there are moments [...] that I wanted to be massive cascades of sound.'⁴² I examine the post-minimalist and rock components of this movement, with the latter explicitly evident in passages dedicated to the Ramones.

This fast-paced movement ($\downarrow = 132$) opens with a sustained major second dyad (A2 and B2 pitches), maintaining a steady eighth-note pulse in section 3 of the orchestra; this pattern is then played intermittently an octave above in section 2 (A3 and B3 pitches) (*Figure 8.14*).⁴³ This movement's pulsed, rhythmic drones recall *Guitar Trio*'s fusion of minimalism and punk; however, this scored music in Movement 3 has a regimented sound that omits the improvisatory rhythms of this earlier work. Nonetheless, this buoyant, precise, and relentless rock backbeat features prominently throughout the movement and serves as a foundation upon which polyrhythms, and later, improvised parts (including drum fills) are layered to intensify the rhythmic and harmonic content of this movement.

⁴² Chatham, in Noble, 'Rhys Chatham on 100 Guitars', 1996.

⁴³ The term 'dyad' in the analysis of this work refers to a two-note set that implies a chord.

♩ = 132

Section 1

Section 2

Section 3

Bass Gtr.

mf

5

Sec. 1

Sec. 2

Sec. 3

Bass

5

Sec. 1

Sec. 2

Sec. 3

Bass

5

Figure 8.14: *A Secret Rose*, Movement 3, bars 1-12.

In Movement 3, the sound is gradually layered over the metronomic drumbeat in 4/4, supported by a droning dyad in section 3 and bass guitar, which creates a base for the polymodal and polyrhythmic variations using the remaining instruments. Kyle Gann identifies Chatham's approach in this work as deploying a strategy that he terms 'totalism',

Generally characterized as having a steady, articulated beat, often favoured by rock or world music. That beat becomes a background grid for polyrhythms of great complexity. Elliot Carter and Milton Babbitt employ complex rhythms too, but without a grid to hear them against; for totalist composers, being able to hear and calculate the complexity is essential.⁴⁴

This definition is useful to clarify how Chatham's approach had commonalities with other composers' work during this period characterised by the use of the overtone series, polymetres, and a steady pulse, in compositions incorporating rock and world music, and using rhythm as a structural principle.⁴⁵ This post-minimal 'totalist' character is most apparent in Movement 4 of *A Secret Rose*, where a steady backbeat is overlaid with a half-dozen time signatures (discussed later in this chapter).

Thereafter, section 1 enters with an implied triple-time figure, using E2 to create a 3:4 polyrhythm, and altering the A Mixolydian tonality also (bars 17-29); section 2 enters concurrently with a minimal melodic pattern using two-notes (A3 and B3 pitches), while section 3 maintains the sustained eighth-note pulse (*Figure 8.15*). This melodic fragment in section 2 changes focus, from the steady rhythm and textural sound of the opening droning pulse, to create a patterned, polyrhythmic music.

This passage amalgamates minimalist techniques with propulsive rock rhythms and sounds. The minimalist techniques are evident in the 'static passages, characterised by consonance and built from repeated patterns and pulses'.⁴⁶ This rock material is reconfigured by these minimalist techniques, and the rock elements – the energy and sound of the driving bass, drums, and guitars – reconfigure the minimalist elements.

⁴⁴ Gann, *American Music in the Twentieth Century*, 355.

⁴⁵ For example: Michael Gordon (1956), Ben Neill (b. 1957), Larry Polansky (b. 1954), and Mikel Rouse (b. 1957). For more, see Kyle Gann, 'Downtown Beats for the 1990s: Rhys Chatham, Mikel Rouse, Michael Gordon, Larry Polansky, Ben Neill', *Contemporary Music Review*, Vol. 10, No. 1, 1994, 33-49.

⁴⁶ Johnson, 'Minimalism: Aesthetic, Style, or Technique?', 1994, 750.

E

17

Sec. 1

mf

Sec. 2

f

Sec. 3

Bass

21

Sec. 1

Sec. 2

Sec. 3

Bass

(fill)

25

Sec. 1

Sec. 2

Sec. 3

Bass

Figure 8.15: A Secret Rose, Movement 3, bars 17-29.

In this movement, repetition of material around a steady pulse frames the pitch content using *ostinato* and drones, with iterated chord sequences also generating a resonant and voluminous music, with shifting modal inflections. For example, there is a motion to the dominant chord of the A Mixolydian from bar 41. Section 1 introduces dyad sequences, repeated twice, using tonal centres of E, A, B, and D. Firstly, a sequence of E, A, E, A is played in section 1 (from bars 41-52); this also suggests an E Dorian inflection within the context of the prevalent A Mixolydian modality sustained by section 2 and 3 (*Figure 8.16*).

This sequence of E7, B, E7, B played in section 1 (from bars 53-76) while section 2 and 3 and the bass hold rhythmic drones using a single E pitch over three octaves (E1, E2, and E3) (*Figure 8.17* shows these chords). The rhythmic intensity pulls back from bars 53-89, with section 3 switching from the eighth-note pulse on the iterated dyad to play quarter-note pulses (with occasional eighth-notes) using single E2 pitches. Thereafter, the modality shifts subtly again and is enhanced. Firstly, a dyad sequence of E, E7, E, E7, E is played twice in section 1 (from bars 77-89). Meanwhile, sections 2, 3, and the bass hold a rhythmic drone in A. This emphasis on the dominant of A Mixolydian (evocative of E Dorian) is made more complex by the bass switching to sustained D pitches, suggestive of an D Ionian mode during these bars.

This is followed by a repeat of the earlier sequence of E, A, E, A in section 1, played twice (from bars 90-101), to recall the earlier A Mixolydian and E Dorian sound (from bars 41-52). Afterwards, there is a firm return to the A Mixolydian mode (from bars 102-116), with E Dorian only briefly implied in the bass (at bar 112). This sound is comprised of modal melodic fragments played with open-string drones in section 1, and pulses provided by iterated sustained notes in section 2 and 3. These latter two sections are accented and underpinned by the bass line, playing a two-note pattern an octave below.

A dynamic, shifting music is produced by the blending and clashing of pitch frequencies and rhythmic layers here by interweaving implied modalities, rhythms, and textures. The textural and timbral focus of this music is akin to the earlier 'meditative' quality of minimalist music, yet altered and enlivened by the amalgamation of rock performance energy and sounds; for example, by encompassing a drum fill every twelve bars throughout (beginning at bar 16).

The image displays a musical score for 'A Secret Rose, Movement 3, bars 41-52'. The score is organized into three systems, each containing four staves: Sec. 1 (Violin I), Sec. 2 (Violin II), Sec. 3 (Viola), and Bass (Cello/Double Bass). The key signature is A major (two sharps) and the time signature is 4/4.

- System 1 (Bars 41-44):** Sec. 1 features a melodic line with slurs and accents, accompanied by guitar chord diagrams for A (octave), E (octave), and A (octave) with a '(fill)' instruction. Sec. 2 has a rhythmic accompaniment of eighth notes. Sec. 3 has a rhythmic accompaniment of quarter notes. The Bass line has a simple rhythmic pattern.
- System 2 (Bars 45-48):** Sec. 1 continues with a melodic line, marked *mf*. It includes guitar chord diagrams for E (octave), B (octave), and E (octave). Sec. 2 has a rhythmic accompaniment of eighth notes. Sec. 3 has a rhythmic accompaniment of quarter notes. The Bass line has a simple rhythmic pattern.
- System 3 (Bars 49-52):** Sec. 1 features a melodic line with slurs and accents, accompanied by guitar chord diagrams for A (octave), E (octave), and A (octave) with a '(fill)' instruction. Sec. 2 has a rhythmic accompaniment of eighth notes. Sec. 3 has a rhythmic accompaniment of quarter notes. The Bass line has a simple rhythmic pattern.


Figure 8.16: *A Secret Rose*, Movement 3, bars 41-52.

Figure 8.17: A Secret Rose, Movement 3, bars 53-60.


Following this (bar 117-119), there is an improvised cue card – an asterisk – to signal an improvised passage. Guitarists from section 1 and 2 are cued, one-by-one, to select a dyad to play from the selection given in the score, as section 3 holds down its iterated A/B dyad (*Figure 8.18*). The manner in which two-thirds of the orchestra’s one hundred guitarists are used in this passage is notable: these bars destabilise the A Mixolydian tonal centre gradually, with the introduction of each guitarist playing improvised material. This expansion and intensification of sound happens via the inclusion of a multitude of improvised pitches – including all available chromatic notes – played *tremolando* over the course of twenty-four bars. As these dyads do not use open-string drones, the sound centring on the A Mixolydian tonal centre becomes increasingly dense and dissonant.

Section 1 & 2 leaders cue players in one-by-one to play other +2 dyads between frets 1-12 on the G & B strings, (players choice of dyad). Choose any dyad between the root 1st and 12th fret:

C



B



(24 bars)




Figure 8.18: A Secret Rose, Movement 3, bars 117-119.

These slowly unfurling *tremolando* passages create a sustained intensity through the amplified resonant music from bar 120.⁴⁷ During *An Angel*, this movement (Allegro) is punctuated by guitarists shouting ‘Hey!’ jubilantly on the last beat of the bar of these passages. This is most likely a homage to the Ramones, whose own music was interspersed with chants of ‘Hey!’. For example, their song ‘Pinhead’ repeats the refrain ‘gabba, gabba, hey!’, with ‘hey!’ punctuating the last beat of the bar also.⁴⁸

A Secret Rose has two extra passages of music to conclude Movement 3, both overtly rock-influenced, and one of them dedicated to the Ramones.⁴⁹ The passage dedicated to the Ramones uses barre-chord riffs on the guitar, and features chiming melodic lead-lines in octaves that extend over eight-bar durations (*Figure 8.19*). This passage is interspersed with massed one-string *Guitar Trio* rhythmic motifs in A (bars 135-142), and D (bars 143-150).

⁴⁷ This develops the massed *tremolando* sounds explored in *Die Donnergötter* (for example, cues I and I2 of the Allegro) for guitar orchestra in this movement (see previous chapter of this thesis).

⁴⁸ Ramones, *Leave Home*, California: Rhino Records, R2 74307, 1977.

⁴⁹ These were not previously part of *An Angel*.

The image shows a musical score for 'A Secret Rose, Movement 3, bars 129-136'. It is divided into two systems. The first system (bars 129-132) features four staves: Sec. 1 (Guitar 1), Sec. 2 (Guitar 2), Sec. 3 (Guitar 3), and Bass. Sec. 1 and Sec. 2 play barre chords for A, D, C, and G, with 'Repeat once.' markings. Sec. 3 plays a melodic line with 'Half of Section 3 plays upper octave.' and 'Repeat once.' markings. The Bass staff plays a rhythmic pattern with 'Repeat once.' markings. The second system (bars 133-136) features the same four staves. Sec. 1 and Sec. 2 play barre chords for A, D, G, and C, with 'x4' markings. Sec. 3 plays a melodic line with 'x4' markings. The Bass staff plays a rhythmic pattern with 'x4' markings.

Figure 8.19: A Secret Rose, Movement 3, bars 129-136, barre chords, melodic lines, and *Guitar Trio* motif in A in section 3 guitars.

Fittingly, Chatham pays homage to these four musicians – who are an important influence upon his development of works for electric guitars – in a fast-paced, rock-influenced movement characterised by double-strummed guitar patterns, pulsed one-note and two-note bass figures, and a rock backbeat. Moreover, the music in these newly-added passages sound akin to an orchestrated punk song, using repeated barre-chord sequences en masse in standard voicings, interspersed with drone-based riffs using the *Guitar Trio* rhythmic motif. The

sound, structure, and style of the music is the nearest the composer's body of work for guitar comes to approximating a rock instrumental.

Another rock-influenced section follows after a gradual *ritardando*, and cut off. This final 6/8 passage generates a dense overtone-laden sound akin to Chatham's earlier non-notated music for electric guitars, and the shimmering textural and timbral sounds of noise-rock groups such as Sonic Youth. This lively section features guitarists rapidly strumming two similar, dense chords with many open strings: an E major/minor chord: E, G#, G, B, E, and a Esus4 chord: E, A, B, B, E. As a performer, I noted prominent overtone content during this part of the movement from the massed and vigorous open-string playing. In addition, I found it easier to listen to the timbre of the music, without having to worry about complex chord changes, cues, or time changes. After another *ritardando*, this dense, droning composite wave sound ends Movement 3 to conclude ten minutes of music that presents a listener with a continuous sequence of immersive loudly amplified sounds, driven by a steady pulse and featuring improvisation.

The manipulation of powerful stimuli to activate the autonomic nervous system – in this case, via repetitious and voluminous amplified sounds, and involving improvisatory techniques – is evident in Chatham's work here, and across his body of music for electric guitar. This aesthetic is also a feature of his collaboration with experimental rock group Oneida, which emphasised his pluralist endeavours across downtown composition and underground rock, and which led to their writing and recording an album combining his multi-instrumental solo style with the group's sound drawing upon electronica, improvisation, krautrock, minimalism, noise rock, and psychedelia.⁵⁰ Their musical collaboration succeeds through a shared musical language characterised by dense textures, drones, improvisation, repetition, and volume. Notably, a crossover between 'high' and 'low' art is evident in their music, originating from a shared musical language seeking to manipulate powerful stimuli to engage an audience and to create an intense experience of immanence, of being in the world, through music.

⁵⁰ Oneida and Rhys Chatham, *What's Your Sign?* Northern Spy Records, NS080, 2016.

Indeed, one rock critic notes that the music of Chatham and Oneida a 'generates a be-here-now flash of present-tense psychedelia, hallucinations by way of overtones and volume'.⁵¹ Another foregrounds the consciousness-altering component of a performance where 'the bulk of the crowd was transfixed' by their music ('Bad Habit') welding the 'psychedelia of early Pink Floyd to a writhing punk-funk beat' and that 'ended with what sounded like a time-stretched amen chord, the effect was undeniably ecstatic'.⁵² The use of repetition and volume connects the composer's work with rock more generally, and coincide with the key components of archetypal hard rock group's Led Zeppelin's captivating music identified by William Burroughs (see discussion in final section of this chapter), and their performances that engage an audience through listening to evoke profound changes of consciousness.

8.2.4 Movement 3: Coda

Movement 3 cues each of the one hundred guitarists in one-by-one, for an unmetred improvisation of eight to ten minutes duration. The music assimilates a conceptualism from downtown composition to structure an improvisation for guitar orchestra, one that liberates the performer from reliance on notation, and the listener from dramatic structure. Each individual guitarist selects one random tone to sustain at a time from any one of the twelve equal-tempered notes (at any pitch) so that, uncharacteristically for Chatham's music for electric guitars, atonality (via total chromaticism), rather than just intonation principles, characterises the harmonic structures.

To begin, every player makes an entry with a random *fermata* pitch, choosing from any note on the fretboard of the guitar, attempting to sound the note when the rest of the ensemble is not playing. However, as the movement progresses and all the members of the ensemble have made their entries, it becomes increasingly difficult to enter on a silence when none exists. After a quarter of

⁵¹ Jesse Jarnow, 'Oneida / Rhys Chatham: What's Your Sign? Album Review', 2016, <http://pitchfork.com/reviews/albums/22531-oneida-rhys-chatham-whats-your-sign/>. Accessed 3 April 2017.

⁵² Steve Smith, 'The Electric-Guitar and a Brooklyn Rock Quintet in Full Sonic Bloom', The New York Times, 20 March 2012, <http://www.nytimes.com/2012/03/21/arts/music/ecstatic-music-festival-rhys-chatham-and-oneida.html>. Accessed 20 March 2017.

the ensemble have entered, the drummer begins to play washes on the cymbals at approximately the same volume as the guitarists, and when all guitarists have entered, the bassist joins with random *fermata* pitches. This measure of individual choice within collective endeavour enriches the composer's work through an increase in musical dynamics facilitated by improvisation. There is an attendant social dynamic evident in the joint effort that realises this music in performance by bringing together musicians to create a volunteer orchestra to interpret the large-scale work.

The ensemble plays quietly at first, gradually increasing volume as directed by the section leaders until it reaches loud, over the course of a minute or so, creating a dense sound comprised of a plethora of improvised pitches and note-durations (rhythms). At the height of the musical intensity, the section leaders are cued by Chatham to improvise as a trio amongst themselves using steel slides to create glissandi sounds for around one minute. Thereafter, the ensemble decreases volume gradually from loud to soft, and the section leaders gradually cue the guitarists out until no one is playing.

As I have shown in this thesis thus far, listening to music of timbral density – particularly when these sounds are played in a continuum of unmetred, extended durations – can slow down or still thought (see discussion of Éliane Radigue's music in Chapter Two in particular). Indeed, these musical elements are foregrounded in this unmetred movement, by the undulating sound of one hundred guitars improvising pitch choices, which for the author as a performer and listener, privileges an expansive and open-ended listening modality.

I found this music privileges modes of listening that reduce the dominant regulatory power of self-consciousness – and realise states of consciousness that correspond with spiritual, or sublime experiences – to allow a person to directly conceive the *now*. This method is in keeping with Hodgkinson's proposal that 'spiritual music' draws upon and induces these experiences where 'the revolt of the psyche against the language-narrated self'.⁵³

⁵³ Tim Hodgkinson, 'Holy Ghost' (2010), Zorn, *Arcana V*, 2010, 209.

Jean-François Lyotard proposes that for an experience of *now* to happen, 'that which we call thought must be disarmed'.⁵⁴ He states that this *now* is a temporal ecstasy, 'a feeling that it alludes to something that can't be shown, or presented', a sublime experience that he delineates as follows:

It is what dismantles consciousness, what deposes consciousness, it is what consciousness cannot formulate, and even what consciousness forgets in order to constitute itself. What we do not manage to formulate is that something happens.⁵⁵

This sublime is also an experience of immanence, analogous to Deleuze's aforementioned conceptions of music evoking 'pure sensation' or 'non-sonorous forces', a realisation of profound sentient states through music. The immanent experience of the 'moment', the *now*, is of central importance here, and more generally, in Chatham's aesthetic and practice in his music for electric guitar.

8.2.5 Movement 4

Movement 4 builds short repeating cycles of chords in multiple time signatures on top of the drummer's 4/4 pulse to generate a sonorous, melodic and polymetric music. The movement is structured into parts 1-3, centring on an E polymodality. There are also two bridges, using unmeasured tremolos in the guitars, inserted in between the three parts, and based upon an A Ionian mode. The movement is just under fifteen minutes in duration. Chatham indicates that the approach he used to generate rhythmic harmonic and melodic variations with a sequencer in his earlier work with modular synthesizers at NYU was a point of departure:

Morton [Subotnick] had three sequencers: one might be set to [8/8], one to [9/8], and the other to [10/8] and you get these nice boop, boop, boop [Buchla sounds] [...] So I said what if I did something like this with guitars – because remember a lot of people that played in these groups were amateurs so I couldn't write something that was too hard – I thought this would be an ideal thing in the sense, it's not too hard to play technically, but it ends up making these beautiful melodies that sound complex because of the polymetres.⁵⁶

⁵⁴ Lyotard, 'The Sublime and the Avant-garde' (1984), 90.

⁵⁵ Ibid.

⁵⁶ Chatham, in interview with present author, 2013.

The players are grouped into six subsections: 1A and 1B (sopranos), 2A and 2B (altos), 3A and 3B (tenors). During the three main parts of the movement, each of these groups is assigned a different metre (*Figure 8.20*).

Subsection:	1A	1B	2A	2B	3A	3B
Time signature:	7/4	8/4	9/4	5/4	11/4	10/4

Figure 8.20: A Secret Rose, Movement 4, time signatures used in each of the six subsections of guitarists, for parts 1, 2 and 3 of the movement (created by the author).

This movement opens with a four-bar introduction from bass and drums, before polymetres commence using octave dyads in an E Mixolydian modality. The steady pulse on drums and bass provides a platform from which to build more rhythmically complex material. Each of the six subsections is given a different time signature, and these sections of guitarists loop a chord, or sequence of chords, to create interacting cycles (*Figure 8.21*).

The image shows six staves of musical notation for guitar subsections 1A through 3B. Each staff begins with a treble clef and a key signature of two sharps (F# and C#). The time signatures for each subsection are: 1A (7/4), 1B (8/4), 2A (9/4), 2B (5/4), 3A (11/4), and 3B (10/4). The notation includes various rhythmic figures, including dotted rhythms, eighth notes, and sixteenth notes, often grouped with slurs. Some staves feature rests for several measures before entering the main rhythmic pattern.

Figure 8.21: A Secret Rose, Movement 4, beat cycles, pitches, and time signatures for parts 1, 2 and 3, used in each the six subsections of guitars (from top to bottom): sections 1A, 1B, 2A, 2B, 3A, and 3B (excerpt from Gann, *American Music in the Twentieth Century*, 1997, p. 300).⁵⁷

⁵⁷ Note: subgroup 2A play in 10/8, counted as two bars of 5/4; 3A play in 11/4, counted as alternate bars of 4/4 and 7/4 (see *Figure 8.21*).

Polymetres using different time signatures are spread across the six subsections of the orchestra to weave a lengthy melodic pattern (*Figure 8.22*). The set-up of the orchestra exploits the one hundred guitarists – and their amplifiers – positioned across the performance space, musically and spatially. Between the three section leaders and a designated musician within each subgroup, the various time signatures are maintained through the use of physical gestures to mark the cycles of beats accordingly. For example, raising the neck of the guitar, eye contact and ‘mouthing the count’, and emphatically nodding the head.

These short phrases are notated with repeat marks, with a cue then given to switch to the next cycle by Chatham via the section leaders. Kyle Gann observes that ‘the perceived result is a quasi-endless melody [...], one that would repeat itself after 55,440 beats’.⁵⁸ I use Gann’s composite transcription of the first forty-eight bars of these melodic patterns to give an indication of the patterns created by the polymetres (rather than several pages from the score). The extension of this beautiful and complex ‘melodic’ line over extended durations creates a sense of expansiveness.



Figure 8.22: A Secret Rose, Movement 4, composite melody (transcribed by Gann, *American Music in the Twentieth Century*, 1997, p. 300).

Thereafter, using the aforementioned polymetric cycles, subsections 1A, 1B, 2A, 2B, and 3A, repeat one dyad respectively: B, G#, A, F#, and E/F#, and subsection 3B alternates two octave dyads: E and A (*Figures 8.21 and 8.22*). After a two-bar drum break, the subsections make staggered entries, in order

⁵⁸ Gann, ‘Downtown Beats for the 1990s: Rhys Chatham, Mikel Rouse, Michael Gordon, Larry Polansky, Ben Neill’, 1994, 35.

from subsections 1A through 3B, to layer a sextuplet of three-bar sequences, using the already established polymetres with a suggested E Dorian modality.

Here, subsections 1A and 1B play independent three-bar cycles using ascending octave chord dyads in A, B, and C#; subsections 2A and 2B play three-bar cycles using descending octave chord dyads in B, G \flat , and D. Finally, subsection 3A repeats a four-bar sequence of E, F#, E, and G \flat octave dyads, while 3B maintains an E dyad. After another drum break, part 1 is repeated, and then followed by a ringing chord that signals that bridge 1 is approaching.

During these bridge sections, Chatham uses all the subsections of guitarists to play unmeasured tremolos in 4/4 time, regrouped into section 1, 2, and 3, and underpinned by the bass and drum pulse. Bridge 1 is characterised by the exclusive use of sustained *tremolando* technique to interweave and layer the guitars, increasing overtone content, rhythmic intensity, and volume to generate a palpable physicality to the sound. The tonal centre for this bridge is based around an A Ionian scale deploying an A, D, E, and B chordal conglomeration.

This first bridge also contains three cues or 'regions', with the final two improvised regions generating significant pitch variations. Firstly with each section sounding dyad octave chords chosen from a selection given in the score, and then, at the third region, players choosing one from another selection given in the score, including chromatic dyad voicings. The interweaving of musical material across various groups is a prominent feature here with *tremolando* entries from the various sections providing a *sforzando* effect by emphasising different offbeats and adding layers of melodic *tremolando* lines. This contrasts with the rest of the composition by virtue of the shift in texture, tonal centre, and the chromatic inflection of the orchestra's sound.

Part 2 sees the subsections return to their allotted polymetric cycles around an E Dorian mode using E, A, D, B, and C#. Here, the musicians play a variation on part 1, but playing only one or two dyads throughout. This is followed by bridge 2, which again deploys multiple *tremolando* lines in the E Dorian mode, including chiming dyads; however, this bridge does not include improvised passages. Part 3 then repeats the material of part 1, including the improvisation of pitch material (*Figures 8.21 and 8.22*).

The concluding section of the movement subdivides the guitarists again. Here, the intensity is raised by a rising eight-bar *tremolando* figure using an E major scale, played in octaves between subsections 3A and 3B (Figure 8.23). This shift to a consonant major modality playing an energetic ascending figure – albeit, in the context of justly-tuned harmonic structures sustained by open-string drones – is suggestive of a resolution after the preceding alterations and combinations of modalities in this movement, and the work as a whole.

The image contains two musical staves, both in treble clef and 4/4 time, with a key signature of two sharps (F# and C#). Both staves begin with a box containing the number '396' and the text '(Big fill into diatonic scale)'. The first staff includes a guitar fretboard diagram for the 2nd fret and a dynamic marking 'f (downbeat)'. The notes on the first staff are: 2fr., 4fr., 6fr., 7fr., 9fr., 11fr., 13fr., and 14fr., with a repeat sign and 'x2' at the end. The second staff includes a dynamic marking 'f' and notes for: 2fr., 4fr., 5fr., 7fr., 9fr., 11fr., and 12 fr., also with a repeat sign and 'x2' at the end.

Figure 8.23: A Secret Rose, Movement 4, ascending diatonic scale played by section 3A and section 3B.

Thereafter, all guitarists play a motif, initiated by section 3, to layer a loud *tremolando* melody in separate octaves, using G, A, and F# – a false-ending, created by an abrupt cut-off confounds expectations – before the orchestra descend from a G \sharp to a massed E octave dyad (Figure 8.24). This final motif surprises by temporarily moving away from the E major tonality, played *tutti* by section 2B, 3A, and 3B, and played an octave lower in section 1A, 1B, and 2A (from bars 413-420). A return to a final E octave dyad, with all guitarists in unison, is sustained over four bars before affirmatively ringing out into silence (bars 421-424).

Figure 8.24: *A Secret Rose*, Movement 4, bars 413-424.

Almost a quarter-of-an-hour after the movement began, the final massed E drone in octaves ends Movement 4 emphatically, and prefigures the tonality of the final movement. The totalist character of Movement 4 contrasts with the preceding atonal and unmetred Movement 3: Coda, and the following drone-based exploration of tonal spectrality in Movement 5, indicative of the variety of compositional approaches used in *A Secret Rose* by the composer.

8.2.6 Movement 5

Movement 5 is a fully-scored version of *Guitar Trio* using the orchestra's one hundred electric guitars, bass, and drums. The tonal identity, as with *Guitar Trio*, is based upon the overtones of an E pitch, as is the structure of the work (see Chapter Five). This arrangement uses cue cards to direct each of the three sections of the orchestra to play a scored rhythm selected by their section leaders, and to signal transitions into the one-, three-, and six-string sections (*Figure 8.25*).⁶⁰ In *A Secret Rose*, the interplay of the three guitars in *Guitar Trio* is arranged for the three subsections of the orchestra. This notated orchestral version of *Guitar Trio* for one hundred guitars, bass, and drums was first

⁶⁰ Note: here, 'sections' refers to a part of the composition characterised by the number of strings used to sustain the drones (see Chapter Five).

performed as a stand-alone composition entitled *G100* (2008) in Williamsport, Pennsylvania on 23 May 2008.

The notated approach provides a more unified rhythmic sensibility by cueing a different rhythmic motif (in stick notation) to each subsection of the orchestra. This is in contrast with the earlier, more improvised guitar orchestra interpretations where the material was not scored; for example, as 'Guitar Cetet' in *An Angel*. The notation is used to provide a basic rhythmic framework and any inadvertent rhythmic deviation, from an individual player or players, is barely noticed in the context of cross-rhythms generated by each of the three sections of guitars playing set patterns. Moreover, the score gives specific directions for strumming over certain frets (node points) to generate overtone content related to each point. This gives an orchestrated, defined overtone structure and rhythmic impetus to the music.



Figure 8.25: *A Secret Rose*, Movement 5, David Daniell holds a numbered cue during a performance at Town Hall, Birmingham, UK on 7 June 2014 (Maria Parsons).

The dense and voluminous timbre the orchestra produces in this movement has a noted capacity to engage a person through perceptualization impulses, resulting in accounts of copious psychoacoustic phenomena.⁶³ For example,

⁶³ See details of similar occurrences listeners had in relation to *Guitar Trio*, in Chapter Five of this thesis.

one critic perceived, 'a broad range of aural images emerge hallucinogenically in the air through the overtones: people chanting and yelling, swarms of insects, giant revving motors, dog whistles, and an airplane all made cameos in my mind's ear'.⁶⁴ A performer notes the psychophysiological import that he experienced:

The overtones [...] created by 100 guitars make for a rich sonic blend. At times it sounded like violins, organs, horns, church bells, voices, trucks, etc. The depth and force of the sound was really intense and the swirling harmonics all around me felt like an auditory mandala [...] it tickled the nerve endings.⁶⁵

Another performer records the potential for 'ghost melodies' to emerge:

I felt I could hear a distinct melody within the extremely dense rhythms and overtones of the orchestra. While there was some direction in the score that could have led the orchestra to produce the melody, I felt it very unlikely that the melody I perceived was a direct result of the written music, but rather more likely an emergent phenomenon.⁶⁶

Indeed, the musical engagement between composer, performers, and listeners is apparent during performances of this movement.

This is most notable when Chatham plays his guitar, leading from the front of centre stage, revelling in the sound. A critic records his ecstatic gesturing, toward the conclusion of the six-string section: 'Chatham himself took up his guitar and turned to the audience, faced up to the skies and fell to his knees, providing that moment of punk rock catharsis that we all had been waiting for'.⁶⁷

The composer acknowledges this evocation of libidinal energy – characteristic of rock – in live renditions of his music for electric guitars:

The musicians [...] feed off the energy of the audience. The more energy the audience has and gives to us, the musicians, the better the music sounds! It's really a give and take between the musicians playing the piece and the energy that the audience reflects back at us.⁶⁸

This Dionysiac aspect imbues the composition with an ecstatic, ritualistic aspect through its performance, manifesting in a shared experience between audience and musicians.

⁶⁴ Chen, '100 Guitars Rock West Coast Premiere of Rhys Chatham's *A Secret Rose*', 2013.

⁶⁵ Wood, 'A Secret Rose', 2013.

⁶⁶ Andrew Burnes, interview with the present author, 2014 (see Appendices).

⁶⁷ Chen, '100 Guitars Rock West Coast Premiere of Rhys Chatham's *A Secret Rose*', 2013.

⁶⁸ Chatham, 'G3: Tilburg', 2007, <http://www.rhyschatham.net/tilburg/G3tilburg.htm>. Accessed 17 May 2012.

Correspondingly, the author William Burroughs, a proponent of reflecting and altering consciousness through art, observed this ritual component as essential in rock music, in the context of a live performance by Led Zeppelin:

The essential ingredient for any successful rock group is energy – the ability to give out energy, to receive energy from the audience and to give it back to the audience. A rock concert is in fact a rite involving the evocation and transmutation of energy. [...] It is to be remembered that the origin of all the arts – music, painting and writing – is magical and evocative; and that magic is always used to obtain some definite result.⁶⁹

Burroughs identifies repetition and volume as key factors in actualising this occurrence in the live performance, comparable with the music of Moroccan master musicians of Joujouka, whose trance music is used to evoke and control 'the real magical forces that sweep away the spurious'.⁷⁰

Indeed, this thesis has established how repetition, timbre, and loud volume are crucial trance-inducing components in Chatham's work for electric guitars also, and how the resulting entrainment, frisson, and perceptualization may serve to activate trance processes and evoke expansive states of consciousness; manifesting a stimulating potency to alter subjectivity on an individual and collective level. A rock critic proposed how the composer's music functions in live performance:

Despite the music theory and the technical background, Chatham seems to revel in sound as a kind of sublime and communal experience, which is fundamentally about the performance itself and can't be laid down in notation.⁷¹

I have outlined how Chatham's music manifested a sublime of music, which could disarm semantics by eluding the grasp of the intellect's powers of representation, and in the process, a space – an intense, immanent experience of the *now* – opens up. In this way, *A Secret Rose* fulfils Curtis White's proposition that art plays a crucial role in stimulating the imagination's basic

⁶⁹ William Burroughs, 'Rock Magic: Jimmy Page, Led Zeppelin, and a search for the Elusive Stairway to Heaven', *Crawdaddy Magazine*, June 1975, reproduced in Jon Bream, *Whole lotta Led Zeppelin: the illustrated history of the heaviest band of all time* (Minneapolis: Voyager Press, 2008), 166-167.

⁷⁰ *Ibid.*

⁷¹ David Moats, 'Beautiful Noise: Rhys Chatham Interviewed', 2014, <http://thequietus.com/articles/14764-rhys-chatham-interview>. Accessed 30 September 2014.

social functions through sublime experience, in order 'to critique and to imagine alternatives to the social status quo'.⁷²

Rock critic Tristan Bath observes the egalitarian aspect of *A Secret Rose* performance in 2014, emphasising the manner in which the individual and the collective engage espouses 'a democratic [...] and social holism':

Chatham's message is clear: together, we can do great things, much greater than we can do apart. [...] [It is] a multifaceted, and often symbolically complex tribute to "the concerns of the many", and a musical microcosm for a troubled and chaotic society. Chatham's grandiose statement is however not [...] blatantly metaphorical or linearly narrative. It's the music of the city, and the physicalisation of a million internalised narratives clashing all at once – and as such it's not only a portrait of all things man made, but is also the churning, chaotic noise of a million lives squeezed together. Like a modern city though, it's not all noise. It's a tremendous, overpowering, man-made miracle – and only by coming together could we make it happen.⁷³

As detailed previously, the improvised choices made by section leaders and guitarists shape the collective sound, and draw upon active participation as an essential component of the performance. Here, the social dynamic of *A Secret Rose* coincides with Curtis White's proposition:

*The problem that art helps us face, and great art helps us face best, is the problem of creating social stability without creating a state of administered conformity. In other, words, art helps us to think what it would mean to live together as a whole and yet be fully human as individuals.*⁷⁴

Indeed, this egalitarian and non-virtuosic music is built upon an interconnectedness facilitated by the electric guitar, a symbol of popular culture.

A Secret Rose is made possible by the coming together of a multitude of simple instrumental parts, to create a whole that is greater than the sum of its parts. Nevertheless, Chatham's role as a composer and a rock musician led to the realisation of this monumental composition, then carried out with the participation of the musicians. Pascal Bence, the long-time technical director of the composer's orchestral performances for electric guitar, foregrounds the importance of the volunteer performers, whose participation makes these performances possible, a collective endeavour that highlights the 'humanity' that

⁷² Curtis White, *The Middle Mind: Why Consumer Culture Is Turning Us Into The Living Dead* (London: Penguin, 2005), 161.

⁷³ Bath, 'Live Report: Rhys Chatham', 2014.

⁷⁴ White, *The Middle Mind: Why Consumer Culture Is Turning Us Into The Living Dead*, 2005, 86.

is essential to, and characterises, the music.⁷⁶ Moreover, this collective effort allows the work to be performed, while simultaneously, it differentiates the composition through the performers' personae. Thus, through these massed guitars, Chatham deploys a physically involving instrumental body to transcend the limitations of the human bodies that play it.

Concluding Thoughts

Chatham's music for electric guitar evolved to encompass increasingly varied and sophisticated compositional practices that engaged and enlarged the personal and social dimensions of musical experience in *An Angel* and *A Secret Rose*. These were significant developments that presented bold new forms of composition on a vast scale, evident of a postmodern, post-minimalist aesthetic and practice. Composer Ben Neill notes the 'diversity of style, genre, and technique associated with postmodernism' in Chatham's works including *An Angel*, and that of his peers, Glenn Branca and Michael Gordon, which demonstrated

A greater concern with the synthesis and integration of [...] disparate elements than do their predecessors. Taking the repetitive structures of minimalism as a starting point, they seek to create new forms with timeless qualities which transcend any of the particular references they may be using, resulting in new music which is beyond style.⁷⁷

I understand 'beyond style' to signify the last identifiable style of modernism, minimalism, a refusal to conform to pre-existing generic styles, and instead, to select and combine elements based upon one's individual preferences. In Chatham's music, the creation of new forms through distillation and synthesis coincides with an aesthetic of the sublime, evident in work that eludes 'the solace of good forms [and] the consensus of taste' in order to 'impart a stronger sense of the unrepresentable'. This is a postmodern immanent sublime of music – one that can be conceived, but not represented, evoked, but not captured – that reconfigures subjectivity.⁷⁸ In this way, his work would directly address the

⁷⁶ Pascal Bence, in conversation with the author, Birmingham Town Hall, 7 June 2014.

⁷⁷ Ben Neill, liner notes for Various Artists, *Century XXI: USA 2 - Electric/Acoustic*, New Tone Records, NT 6731, 1994.

⁷⁸ Jean-François Lyotard, 'Answering the Question: What is Postmodernism?' (1983), Lyotard, *The Postmodern Condition*, 1984, 81.

question of what to do with the freedom of choice created by an avant-garde tradition, liberated from academicism and convention.

These orchestral compositions require, and are enriched by, a mass of volunteer performers, either serious amateurs or professionals. Rutherford-Johnson records that composers such as Branca and David Lang followed after this model of composition in *An Angel* requiring large numbers of volunteer participants – respectively, with *Hallucination City* (2001) for one hundred electric guitars, and *crowd out* (2010) for one thousand voices, in music distinguished by principles of ‘density, multiplication, and sheer weight of numbers’.⁷⁹ He adds that this populist component may bring the work to greater public attention:

Music made in such a mass form—echoing the giant Victorian-era performances of Handel’s *Messiah*, for example—is accessible to the amateur performer. Indeed, it requires them: even if it were possible to book one hundred professional electric guitarists on the same night to perform [...], it would be prohibitively expensive to do so. So it is therefore necessary to include amateurs in the performance. Composing for such large-scale event formats can thus help bring the music out of the traditional new music sphere and into the public eye.⁸⁰

Certainly, Chatham’s orchestral works for electric guitars reached a wider audience through grand concerts that included listeners and musicians beyond new music or underground rock. Indeed, many of the composer’s recent large-scale events featured free admission for the public, making them more readily accessible; for example, in performances at international art and music festivals in Paris (2005), New York (2009), and Liverpool in (2012), which will be discussed in the chapter to follow.

Nonetheless, in the early twenty-first century, Chatham continued to generate a multi-faceted musical output using improvised, non-notated, and notated practices (sometimes concurrently in one work), operating in a variety of musical contexts, without being beholden to any one genre or style. I will next examine how he synthesised these practices in an antiphonal scored work for four hundred electric guitars, in order to outline the musical language therein.

⁷⁹ Tim Rutherford-Johnson, *Music After The Fall: Modern Composition and Culture Since 1989*, 2017, 195.

⁸⁰ Ibid.

Chapter Nine: *A Crimson Grail* (2005)

In this final chapter, I determine Chatham's heterogeneous aesthetic and practice in *A Crimson Grail* and the significance of these developments in the composer's musical language. After his music for electric guitars came to public attention again – firstly, with the release of *An Angel Moves Too Fast to See: Selected Recordings: 1971-1989* in 2003; and thereafter, with a performance of *An Angel Moves Too Fast to See* in Nantes, France in 2004 – he returned to writing music for guitars, culminating in a commission from the city of Paris, France for a new scored work.¹ I outline the background of this composition, *A Crimson Grail*, and contextualise the music's development between 2005 and 2012 to provide a framework to analyse and interpret the work.

9.1 *A Crimson Grail*

A Crimson Grail focuses upon antiphony, resonance, and timbre to explore the sublime dimensions of musical experience. These compositional concerns addressed the fifteen-second-reverberation time of the Sacré-Cœur basilica in Paris, the venue where the work – scored for four hundred electric guitars – received its world premiere as part of the Nuit Blanche festival on 1 and 2 October 2005.² Thereafter, a revised version of *A Crimson Grail* was premiered at an outdoor concert performance using 216 musicians at the Lincoln Centre Out of Doors festival, New York on 8 August 2009.³ This work was performed on a third occasion at Liverpool's Anglican Cathedral, using one hundred guitarists, eight bass, and hi-hat as part of the city's Biennial contemporary art festival on 14 September 2012 (*Figure 9.1*), when I participated as a guitarist.

The number of guitarists and bassists used in each of these performances depends upon the requirement that the musicians are positioned around the

¹ Chatham, *An Angel Moves Too Fast to See: Selected Works 1971-1989*.

² However, an orchestra of one hundred twenty-six guitarists performed the work on this occasion.

³ A previous performance of *A Crimson Grail* at the outdoor venue had been prepared, but it was cancelled on the evening of the concert due to torrential rain on 15 August 2008.

audience in a site-specific context. For example, Chatham used sixteen bassists for the New York performance, and eight bassists for the Liverpool performance. In the analysis to follow, I examine scores of the revised version of *A Crimson Grail* used in the New York and Liverpool performances. *A Crimson Grail* uses the harmonic series, and repetition of this material as a structural basis, an approach that is combined with chromaticism and improvisation at times.



Figure 9.1: *A Crimson Grail*, UK Premiere, Liverpool, 2012: Chatham, four section leaders, and one hundred and eight musicians perform at the Anglican Cathedral (Peter Guy).

In between writing *A Crimson Grail* for its premiere in 2005, and the subsequent performances of the revised version in 2009 and 2012, he continued to develop his partly-improvised performance solo style (electric guitar, flutes, trumpet, and voice) as featured on solo recordings and collaborations with other artists – while he also undertook tours of his earlier non-notated music for electric guitars. Notable collaborations included performances and recordings with rock group Oneida, and duo sets and recordings with Charlemagne Palestine (discussed in Chapter Eight and Three, respectively).

A Crimson Grail is divided into three movements: Part 1, Part 2A, and Part 2B. These parts are of approximately thirty, ten, and twenty minute durations respectively. The commercially-released recording of *A Crimson Grail* from New York (2009) lists these three parts as: Part 1, Part 2, Part 3; corresponding respectively to Part 1, Part 2A, and Part 2B of the revised score of the work

from the 2009 and 2012 performances.⁴ This revised score is used in the analysis to follow. An earlier recording of *A Crimson Grail* from Paris (2005) does not follow the order of the aforementioned revised version, or analysis to follow.⁵

The work is decidedly anti-virtuosic, with no individual instrument or tuning group given a dominant role over another. Chatham outlines the music as follows:

As a minimalist composition, *A Crimson Grail* focuses more on the grandiose sonic effects of such a large quantity of instruments and musicians rather than on complexity within any of the individual parts. The music is about the result of putting together 216 [or 108] small, simple parts to make something that is greater than the sum of those parts. Although each individual musician's contribution is technically simple to play for a professional or serious amateur guitarist, the challenge and the beauty of *A Crimson Grail* comes with understanding and hearing the complex interactions between the many components of the whole.⁶

The musicians are organised according to a system comprised of four tuning groups: soprano, alto, and tenor guitars in octave tunings, and bass guitars in standard tuning. This is identical to the system in *An Angel Moves Too Fast To See* (using multiple perfect unison, fifth, and octave notes): soprano: all strings tuned to E in two octaves; alto: all strings tuned to A in two octaves; tenor: all strings tuned to E in two octaves, and bass in standard concert tuning: E, A, D, G (*Figure 9.2*). The given pitches are sounded in multiple unisons on each electric guitar as follows (bass open strings are notated in full):

⁴ Rhys Chatham, *A Crimson Grail*, Nonesuch/Wordless, 7559-79793-0, 2010.

⁵ Rhys Chatham, *A Crimson Grail*, Table of The Elements, TOE-CD-106, 2006. This recording switches the order of the movements, with Part 1 and Part 2B shortened by approximately half their length also. This recording corresponds to the revised version of *A Crimson Grail* as follows: track 1 is Part 2A (from 00:00 to 10:38) and a shortened version of Part 2B (from 10:38 to 20:43); track 2 is a shortened version of Part 1; track 3 does not correspond with the scores used in this analysis or in the later performances. This last piece of music uses the tuning system to sustain a harmonic-series derived modality (massed A and E pitches) and adds harmonically-related pitches using the approaches and techniques described in the analysis of Part 1 to follow (improvised sections, layering of sounds using sections of the guitar orchestra playing resonant timbres, *tremolando*, and so on).

⁶ Chatham, liner notes to *A Crimson Grail*, Nonesuch Records, Nonesuch Records 524138-2, 2010.

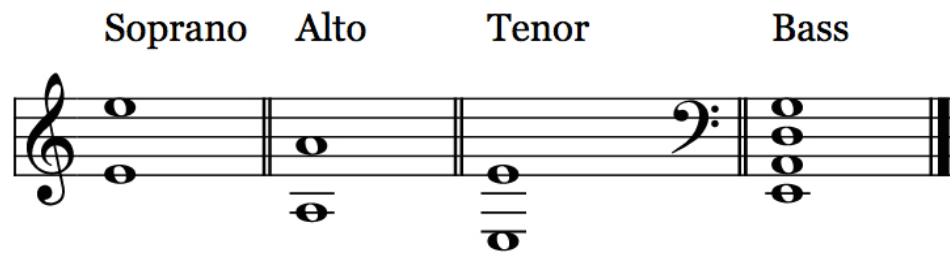


Figure 9.2: The guitar tuning groups in *A Crimson Grail* showing the pitch range of the open-strings in musical notation (created by the author).

The tuning system establishes a fundamental tonal identity to facilitate the creation of a harmonic series modality derived from it. This tuning iterates massed, just intervals – drawing upon the tonal palette of early minimalism – and augments these sounds with chromaticism and pandiatonicism. The majority of instruments – sopranos, tenors, and basses – sound E pitches on open strings frequently during the composition, with the altos sounding A pitches (bass also switches to A on occasion), a foregrounding through repetition that remains largely constant for the duration of the work.

Using musical notation to represent Chatham’s music has limitations. Firstly, it cannot adequately convey the sonority and density of the multiple justly-tuned open-string intervals and their overtones, which are reinforced by the tuning system: corresponding to multiple perfect unisons, fifths and octaves in equal temperament. Secondly, it cannot represent the resulting acoustic or psychoacoustic phenomena that differentiates and enriches the music through a listener’s subjective auditory experience. Thus, I include first-hand experience performing the music and those of other listeners and performers, along with examples from the musical score to illustrate the techniques used to expand upon this method of composition.

The composite sound is greater than the sum of the individual parts, a resonant holism of sonorous sound – pleroma music – derived from the interaction of massed E and A pitches played across multiple octaves with chromatic and diatonic layering, and plentiful acoustic and psychoacoustic phenomena. His earlier non-notated work for electric guitar details the origins of this method of composition; however, these did not feature chromaticism, or the layering of musical elements to the degree present in the notated work.

The uniformity of texture from massed electric guitars, as with the previous work notated works, foregrounds texture and acoustic patterns. Thus, this justly-tuned system for massive forces of electric guitars enhances the acoustic phenomena, resonance, and timbre of the music and characterises its harmonic language greatly. Here, the composer states: ‘this tuning gives an ethereal, transparent sonority, reinforcing the overtones of the guitar to such an extent that the harmonics that are generated become an important component of the melodic content of the piece’.⁷

In the close reading of *A Crimson Grail* to follow, I use Walter Everett’s work on rock’s tonal systems, and Stephen Graham’s extension of Everett’s ideas to drone-metal, to analyse aspects of Chatham’s pitch organisation.⁸ Chatham’s approach to tonality may be summarised as deploying diatonic modal systems that may also be inflected by chromaticism. In this rethinking of tonal/modal practice, common-practice harmonic, and voice-leading behaviours are not always emphasised at surface levels, and can often simply be rendered irrelevant, even at deeper levels. High-volume amplification of justly-tuned drones and overtones pervade the composite soundwave to render a dense, sonorous harmonic-series-derived music.

Chatham’s approach to pitch organisation might best be understood as coming under the third of Jonathan Bernard’s four basic stages of minimalist tonality: as that in which the music sounds ‘more explicitly “harmonic”, that is, chordally orientated, though not [...] necessarily tonal in any sense’.⁹ This harmonic organisation in Chatham’s non-notated music for electric guitar is established through the tuning system and it predominantly avoids common-practice harmonic and voice-leading behaviours; the larger, more complex scored forms incorporate varying degrees of tonal motion – most frequently implied rather than being substantial – in the context of these foundational justly-tuned sounds. Thus, the just intervals of the tuning determine the harmonic structures rather than common-practice chord progressions or voice leading.

⁷ Chatham, liner notes for *Harmonie du soir*, 2013.

⁸ Stephen Graham, *Notes From The Underground: A Cultural, Political, and Aesthetic Mapping of Underground Music*, 2012.

⁹ Jonathan Bernard, ‘Minimalism, Postminimalism, and the Resurgence of Tonality in Recent American Music’, *American Music*, Vol. 21, No. 1, 114.

Drone metal provides an analogous set of musical aesthetics and practices to Chatham's.¹⁰ For example, Sunn O))) draw upon drone-minimalism in their own ritualistic musical performances – particularly, work invoking experiential states through listening to amplified sustained timbres over long durations by Chatham (as well as Conrad, Radigue, and Young) – and the sluggish, detuned riffs of metal-pioneers Black Sabbath. Correspondingly, Graham extends Everett's explication of rock's tonal systems to drone metal to develop two categories that have a bearing upon the analysis of Chatham's work for electric guitar orchestra. He defines these as: 7a, 'tonally liminal, to move in and out of stability and clear tonal identity', and 7b as 'total chromaticism defined by noise, feedback, and high gain'.¹¹ These tonal categories transcend the limits of equal-temperament by foregrounding the acoustic phenomena – overtones in particular – of the highly amplified sound, and attendant psychoacoustics for a listener. As the analysis will detail, this is evident in Chatham's music for electric guitar, including *A Crimson Grail*.

Chatham conducts the guitar orchestra with assistance from four section leaders, who conduct a section each, with the musicians from the four tuning groups spread equally across these four sections (*Figure 9.3*). These four tuning groups are subdivided into two or three subgroups at times; for example, when the alto is divided into two groups to provide extra musical resources. Each section contains an approximately equal amount of soprano, alto, tenor, and bass players, lined in one or two rows, depending on the performance space and ensemble size.

A percussionist plays a hi-hat, seated to the conductor's right; a part that was added in 2009 after the original version was rewritten (see *Figure 9.1* above). This steady pulse anchors the multiple guitars – a compositional approach first used in *Guitar Trio* and developed subsequently for larger forces of electric guitars and more complex arrays of musical devices – and provides a repetitive, rhythmic framework for the justly-tuned music in *A Crimson Grail*.

¹⁰ For example see Graham, *Notes From the Underground*, pp. 321-338; John Wray, 'Heady Metal', *The New York Times*, 28 May 2006, online; Jan Tumlrir, 'Primal Dirge', *Artforum International Magazine*, 2006.

¹¹ Graham, *Notes From The Underground*, 2012, 324-326.

I have modified an image below to show the single-row set-up for the ensemble using one hundred and eight musicians for the Liverpool concert, the performance, and score discussed in the analysis that follows (*Figure 9.3*). I also include the set-up for the New York performance, with two hundred guitars, to indicate how Chatham sets up the musicians within each section; in this case, using two rows of guitarists (*Figure 9.4*).



Figure 9.3: A *Crimson Grail* concert performance at Liverpool Cathedral in 2012 with section leaders (inside ovals) and their sections (with lines): section 1 (blue), section 2 (red), section 3 (orange), and section 4 (yellow) (created by the author using Peter Guy's photograph).

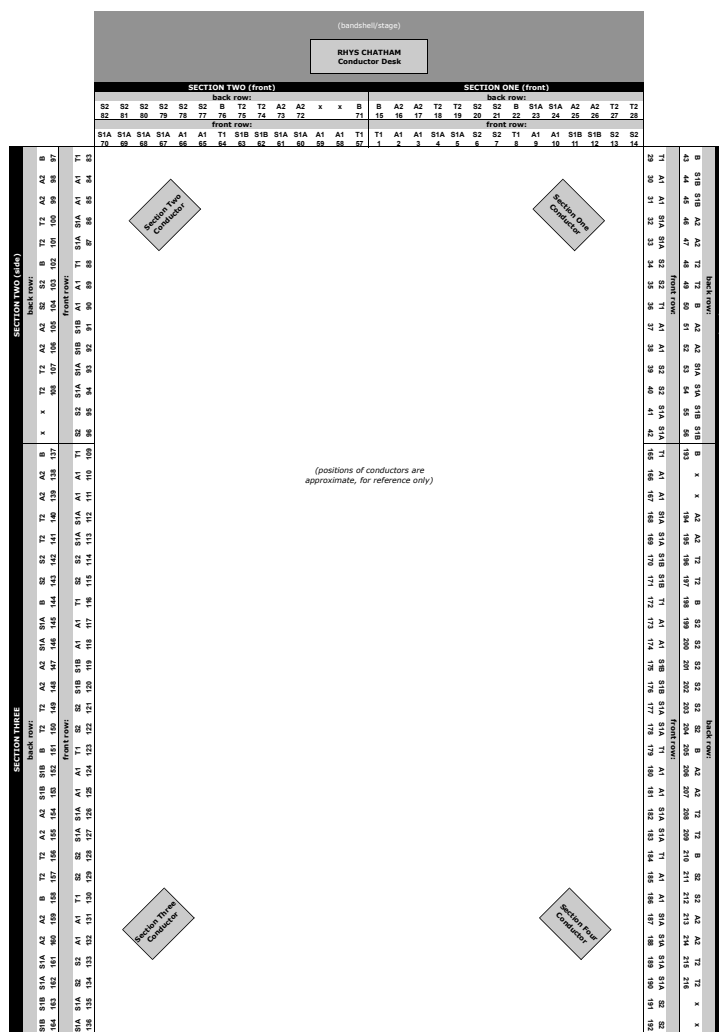


Figure 9.4: A *Crimson Grail*, stage plan, with conductor (percussionist is beside him), section leaders positions, and musicians in specific tunings within the sections for New York performance in 2009 (courtesy of the composer).¹²

In advance of three days of rehearsals leading to a performance, as with *A Secret Rose* concerts, musicians prepare by accessing a website that contains details of the tuning system, exercises for extended guitar techniques, general information, and musical scores. Chatham scores the work using a combination of standard musical notation, performance directions, and chord diagrams (for

¹² Note: ‘S’ is soprano, ‘A’ is alto, ‘T’ is tenor, and ‘B’ is bass. The numbers added to this letters refer to subgroupings of these parts; for example, T1 is the tenor 1 subgroup.

instance, *Figure 9.7* in the analysis below), and employs musical cues, rather than bar numbers, aside from the aforementioned Part 2A of the composition.¹³

A Crimson Grail differs from the earlier non-notated music, and the scored *Die Donnergötter*, in that, it uses improvisation and orchestration of these larger forces to create passages of partial chromaticism (not always improvised), and, to a lesser extent, or of total chromaticism as well. In both cases, partial or total chromaticism moves the focus away from a tonally-centered sound to different degrees: this contrasts with the ‘pure’, or just tunings that underpin the music, a post-minimal language that assimilates equal-tempered notes into clusters of sound. This approach was also evident in *A Secret Rose*.

Partial chromaticism, to varying degrees and densities, relies less on just intonation or justly-tuned principles, instead stacking notes to imply modalities or create pandiatonicism around the harmonic series structures sustained by the tuning system. This occurs mainly through playing open-strings and equal-tempered pitches concurrently.

Total chromaticism is where any one of twelve equal-tempered tones are chosen at random and sustained, and the durations are improvised also, to create an atonal music. Pitch organisation and control, which are elsewhere determined in the context of just tunings, are not so here. Instead, the chromaticism recalls atonality, a divergence from Chatham’s compositional approach using a foundational tonal identity derived from a tuning system exploiting the harmonic series. This deviation from the composer’s primary method of structuring his works for electric guitars – and indeed, his earlier non-notated works for other instruments – occurs throughout Movement 3: Coda of *A Secret Rose*, and at the last cue of Part 2B of *A Crimson Grail*, with just the alto group playing. However, this is uncharacteristic of Chatham’s general compositional approach for electric guitars.

This move away from early minimalism per se, and its new tonality, to find his own compositional voice, began with *Guitar Trio* and its synthesis with rock instrumentation and performance approaches. While the post-minimalist tonality

¹³ These chord diagrams that provide visual instruction specifying where to play figures on the retuned guitars, including the playing of multiple unison pitches at any one time.

in the non-notated works may not be as obvious for a listener, these works incorporated a degree of equal-tempered intervals into music largely comprised of justly-tuned drones and overtones.

After initial performances of *Guitar Trio*, the composer used equal-tempered intervals, while also exploiting the microtonal differences, created by the guitars' tuning slippage, against the fundamental tonal identity. The deviation from just intervals is notable in *The Out of Tune Guitar* where an indeterminate tuning was used but, which, nonetheless, explored iterated amplified frequencies and resonance. The realisation that just intonation tunings were unstable on a guitar, following initial performances of *Drastic Classicism*, led the composer to perform the work using some equal-tempered intervals. In turn, he developed music built around amplified and iterated justly-tuned tones within which equal-tempered sounds were then embedded – in his notated work for electric guitars.

This augments a minimalist tonal palette with chromaticism, modality, and pandiatonicism to create a distinct post-minimalist language that largely foregoes common practice harmonic progressions and voice-leading behaviours. Instead, it is structured upon the workings of harmonic series to create pleromas of sound, harmonically resonant composites of tones and overtones comprised of massed similar voices, with noted acoustic and psychoacoustic potency. In the notated works for electric guitars, the resonant justly-tuned sound assimilates the equal-tempered tones into the predominant harmonic series structures.

The exceptions to this harmonic-series-derived musical language are infrequent in Chatham's works for electric guitar, and for his works for other instruments. These include: total chromaticism, when the guitar orchestra improvises atonally; barre-chord sections in Movement 3 of *A Secret Rose* only, which features passages of equal-tempered chordal sounds; melodic taglines, in the notated guitar orchestra works, including *A Crimson Grail*.

9.1.1 Part 1

Part 1 is approximately structured into a broad tripartite form, with each section concluding with a melodic tagline. Firstly, the harmonic series modality created by the tuning system forms harmonic structures upon which diatonic and chromatic tones are gradually layered – sometimes using improvised pitch selections and rhythms – to respectively affirm, and obscure the fundamental tonal identity (cues 1 to 10). Secondly, harmonic series drones are placed in the context of steady quarter-note pulse, which is used to spatialize the music and create antiphony, and serves as a grid upon which polymetres are overlaid (cues 11 to 24). This second phase affirms the tonal identity, which is inflected momentarily with only one chromatic pitch introduced ($D\flat$) at cue 19. Finally, the harmonic structures sustained by the guitars' just tunings are subjected to improvisations of pitch and phrase length, both unmetred and over a steady pulse, that augment the spectrum of frequencies embedded in the composite sound, morphing back and forth between a clear tonal identity, and ambiguity (bars 25 to 36).

The harmonic structure established by the tuning expands and contracts throughout the movement with resultant implied harmonic shifts. Layering of additional tones via chromaticism and pandiatonicism occurs in the context of the harmonic-series-derived modality sustained by the just-tuning. Below, is a graphic representation to show the layering in *A Crimson Grail*, as well as the expansion, alteration, and direction of the harmonic structures (*Figure 9.5*):

The image displays musical notation for cues 1 to 36 of 'A Crimson Grail, Part 1'. It is organized into four systems. The first system (cues 1-14) features a treble staff with sparse notes and a bass staff with sustained notes. The second system (cues 15-26) shows a treble staff with more notes and a bass staff with sustained notes. The third system (cues 27-35) shows a treble staff with dense, complex chords and a bass staff with sustained notes. The fourth system (cues 36) shows a treble staff with a single chord and a bass staff with a single note.

Figure 9.5: *A Crimson Grail*, Part 1, cues 1 to 36: musical notation outlining augmentation of harmonic structures throughout the movement (created by the author).

The opening cues of Part 1 establish the harmonic series structures via unmetred drones extemporising rhythmic patterns and tempos. This layers and sustains a resonant waveform using non-synchronous open-string strumming with multiple implied tempi. This develops the approach used to begin *Guitar Trio*, *Die Donnergötter*, and *An Angel Moves Too Fast to See* where a steady pulse was used to synchronise the massed drones. In *A Crimson Grail*, tenors use E pitches in octaves, at cue 1, joined by A pitches in octaves from altos, at cue 2, and single notes in A by basses, at cue 3. This stacking of resonant diatonic tones occurs throughout the work and underpins it; this shares a common harmonic language with the pure tunings of early minimalism, and the

tonal systems of rock (including the power chord, characteristic of drone metal, hard rock, and punk).

During these opening cues, each individual musician is instructed to play at any tempo, but not in time with the surrounding musicians, when executing one of three phrases (*Figure 9.6*). These non-synchronous devices sustain iterated drones and overtones in a composition where repetitive rhythmic and harmonic structures are foregrounded. At cues 4 and 5, respectively, the tenors and altos sound these pitches *tremolando* to increase the proliferation of overtones generated. This reinforces the harmonic structures created by the guitars' tuning; simultaneously, E and A pitches are layered in octaves from cue 2, joined by bass playing A at cue 3 introducing resonant upper partials that are clearly audible. This aligns with Graham's explication of drone metal's modus operandi characterised by 'sustained tones' and 'emphasis on tonal spectrality'.¹⁴

At the Liverpool performance, the cathedral space accentuated the acoustic phenomena, resonance, and sympathetic vibration inherent in these amplified sounds, and emphasised the multifaceted rhythmic and timbral character of the composite sound wave. Here, massed open-string playing of just intervals and partly improvised-rhythms echo Chatham's earlier non-notated work for electric guitar such as *Guitar Trio*. Similarly to that early work, *A Crimson Grail* grants performers a good deal of freedom from the score, as the work unfolds gradually and intuitively using cues, rather than sections comprised of specific numbers of bars. The increasing use of sixteenth-note rhythms and sustained tremolo figures serves to increase the rhythmic intensity from the outset also, while expanding upon the underlying tonality, a rhythmic and timbral focus that recalls his non-notated music for guitar. However, *A Crimson Grail* is arranged for a large musical force in the context of vast spatial (performance sites) and temporal (duration) framework.

¹⁴ Graham, *Notes From The Underground: A Cultural, Political, and Aesthetic Mapping of Underground Music*, 328.

1 Tenors select from three choices, play at

Enter softly and gradually get louder at section leader's cue. (*p* \curvearrowright *mf*)

2 Altos select from three choices, play at any speed, from slow to fast, on all 6 strings.

Enter softly and gradually get louder at section leader's cue. (*p* \curvearrowright *mf*)

3 Bass selects from three choices, play at any speed, from slow to fast.

Enter softly and gradually get louder at section leader's cue. (*p* \curvearrowright *mf*)

Figure 9.6: *A Crimson Grail*, Part 1, cues 1-3.¹⁵

At cue 6, the structure maintained by the tenor drones is gently destabilised when basses introduce an F_{\sharp} (a chromatic note, suggestive of an E Phrygian mode), and foregrounded when they play drones in E. This recalls the subtly shifting timbres of the drone-based minimalism and electronic music at the NYU studios, layering simple tonal materials and manipulating their overtones to develop a continuum of sound that encourages the subjective auditory processing of timbre, and the fascinating effect of this process that results in shifts of consciousness. Non-synchronous open-string playing combines with unmeasured *tremolando* to evoke a sense of timelessness ('floating time' or 'eternal music') by virtue of a lack of any one prominent pulse or tempo; the uniformity of texture from the multiple guitars also foregrounds the timbre of the guitars.

The tactic of alternating between reinforcing and subverting the fundamental tonal identity is varied at cue 7. Individual guitarists in the soprano subgroup 1 enter with improvised selections of single pitches that reaffirm E in two octaves, or create dissonance within the context of the iterated tonal identity by sounding single D pitches.

¹⁵ All the musical excerpts that follow are from the scores used in the Liverpool performance in 2012.

Subsequently, cue 9 introduces the soprano 1 subgroup, the last group of players to enter, affirming the justly-tuned sound sustained by tenors and basses – with the exception of those occasions when an F \sharp is improvised by a bassist – with each musician playing one of three *ostinati* and improvising the tempo of these sixteenth-note phrases. Thus, it is possible to see how *A Crimson Grail* moves in and out of stability from the tonal identity established by the tuning system, and iterated throughout by the prevalence of E and A tones.

To signal the end of this introductory section at cue 10, Chatham uses a melodic phrase as a tagline. This slowly-ascending three-note figure uses E, F \sharp , and A, which is also doubled three octaves below in the bass, in the context of a fundamental tonal identity sustained by the guitars' concurrent open-string playing (*Figure 9.7*).

This last cue details Chatham's modal approach of combining melodic fragments and fundamental tonality in scored form – first evident in *Die Donnergötter* – in a larger and more complex musical form. In distinction to that work, and as with *A Secret Rose*, the opening cues of *A Crimson Grail* takes advantage of individual musicians improvising durations, pitches, rhythms, and tempos to expand upon the given material – a whole greater than the sum of its parts – and realise the composition in performance.

The figure displays three guitar chord diagrams at the top: E (open strings), E/F \sharp (1fr., first fret), and E/A (5fr., fifth fret). Below these is a musical score for two staves. The top staff is for Sopranos 1 & 2, and the bottom staff is for Bass guitar. Both staves are in 4/4 time and feature a tremolo of chords. The bass line starts with a low E (three octaves below the treble clef) and moves up stepwise to F \sharp and then A. The soprano line features a melodic phrase of E, F \sharp , and A, with various rhythmic values and accents. The dynamic marking *f* (forte) is present at the beginning of both staves.

Figure 9.7: *A Crimson Grail*, Part 1, cue 9, tremolo melodies in sopranos 1 and 2, with bass.¹⁶

¹⁶ Note: 'fr.' is the abbreviation for fret, for example, '11fr.' indicates the chord shape is played at the eleventh fret of the guitar.

In cues 11 to 21, Chatham employs antiphony in *A Crimson Grail* to create immersive and spatialized music where further subgroups of instruments (for example, subdividing tenors 1 and 2) increase the layering of parts. At cue 11, the basses establish a staccato quarter-note bass pulse on an E1 pitch, a framework for the antiphonal music of the subsequent cues. Hereafter, the guitars spatialize drones – using all of their open-strings – across all four sections of the orchestra, beginning with the tenor 1 subgroup (*Figure 9.8*).

The image shows a musical score for four sections of tenors (Sec. 1 to Sec. 4) in 4/4 time. The tempo is marked as quarter note = 96. Each section plays a chord of four notes (E, G, B, D) in a staccato, quarter-note pattern. The sections play in an antiphonal fashion: Sec. 1 starts in measure 1, Sec. 2 in measure 2, Sec. 3 in measure 3, and Sec. 4 in measure 4. Each section is labeled 'T1'.

Figure 9.8: *A Crimson Grail*, Part 1, cue 12, antiphonal chord is passed around the tenor 1 group.¹⁷

Antiphonal playing is a significant feature of the composition: the arrangement of players into four sections enables a continuous and powerful sound form – comprised of layers of drones and their overtones – to move spatially around the performance site and the audience. After the tenor 1 group begin a sixteen-chord cycle using E drones at cue 12, the tenor 2 group played arpeggiated E pitches at the following cue, before alto 2 group enter with A drones to coincide at cue 14. These justly-tuned guitar sounds combine with the steady bass and percussion pulse, in a manner that builds upon Tony Conrad's endeavours *Ten Years Alive on The Infinite Plain* (which originally featured Chatham) and his collaborative effort with Faust *The Side of Man and Womankind* (1973).¹⁸ Chatham increases the potential for entrainment, frisson,

¹⁷ Note: firstly, in this score, 'Sec. 1' refers to section 1, and 'Sec. 2' to section 2, etc.; secondly, 'T1 and T2' refers to tenors 1 and 2 in the above *Figure 9.8*, *9.9* and *9.10*, and hereafter, A1 and A2 in the excerpts refer to altos 1 and 2.

¹⁸ This work is included on Tony Conrad and Faust, *Outside the Dream Syndicate*, Caroline, C 1501, 1973.

and perceptualization inherent in Conrad's early minimalism by combining them in an antiphonal, polymetric, and polyphonic music for a massive electric guitar orchestra.

At cues 15-17, polymetric elements are layered upon the sixteen-beat cycles and antiphonal chords – underpinned by a quarter-note pulse played on E1 in bass 1 & 2 subgroups, and natural harmonics in bass 3 & 4 subgroups. From cue 15, these open-string chords are played by the tenor 2 group in 8/4 time, and in the alto 2 group in 6/4 time; after that, at cue 16, the tenor 2 group re-enters in 7/4 time on the conductor's cue (*Figure 9.9*).

Rhythmic complexity based upon principles of repetition, including non-synchronous rhythms and polymetres, provides a framework for the harmonic structures, and give impetus and structure to the music. A paradoxical sense of stasis and movement is evident in the passing around of sustained tones between musicians during these cues while overlaying polymetres around a steady pulse. Here, the composer states his intention is to make 'looped rhythms that interact with each other between sections'.¹⁹ This draws upon the same principle of layering polymetres evident in the Adagio of *An Angel* that drew upon electronic music made with the Buchla sequencer.

This layering of rhythms and tones, to make a sum greater than the (repetitive) parts, details how Chatham extended that form of downtown composition into his music for electric guitars. This process became more refined as he developed increasingly sophisticated music using a range of compositional devices and ever-larger musical forces.

¹⁹ Chatham, *A Crimson Grail* (revised version) score, 2012.

15 **Rhys Cue 1:**
Tenor 2 polyrhythm.
Alto 2 fade out on this cue.

Rhys Cue 2:
Alto 2 6/4 polyrhythm.

Rhys Cue 3:
Tenor 2 ends on ring.

16 **Section Leader Cue 4:**
Tenor 2 7/4 polyrhythm

T2 ends on ring, then goes to 7/4, as written.

(Alto 2 continues playing in 6/4)

Figure 9.9: A Crimson Grail, Part 1, cue 15-16, antiphonal, polymetric layering of primary tonal centres.

For example, at cue 19, all soprano guitars improvise using D or E pitches to colour the tonal identity; thereafter, the alto 2 and tenor 2 subgroups playing polyrhythms (with the former in 6/4 and the latter in 7/4) *decrescendo* into silence at cue 20. Alto 2 and tenor 2 subgroups then re-enter to pass A and E antiphonal drones around in quarter-note, sixteen-beat cycles, at cues 21 and 22 respectively: this massed E and A drones (and their overtones) around the four sections of the guitar orchestra (*Figure 9.10*). Following this, cue 23 prepares all musicians to follow Chatham’s signal for a transition into the following cue. This orchestration details how Chatham layers sounds (pitches, metres, etc.) to render this harmonic-series modality in an antiphonal texture, moving between sections seamlessly and cueing sections facilitated by the sub-conductors.

The image shows a musical score for four sections, labeled Sec. 1 through Sec. 4. Each section is represented by a single staff in treble clef with a 4/4 time signature. The tempo is marked as ♩ = 96. The score consists of sustained chords. Above the staves, there are four main sections marked with numbers and letters: 1 T1, 2 T2, 3 A1, and 4 A2. Lines connect these labels to specific chords in the score. For example, in Section 1, the first chord is labeled 1 T1. In Section 2, the first chord is labeled A2, and the second chord is labeled T1. In Section 3, the first chord is labeled A1, and the second chord is labeled A2. In Section 4, the first chord is labeled T2, and the second chord is labeled A1. The chords are sustained throughout the sections, and there is an antiphonal passing of E chords between the tenor 1 and 2 subgroups, and A chords between the alto 1 and 2 subgroups.

Figure 9.10: *A Crimson Grail*, Part 1, cue 21, antiphonal passing of E chords by tenor 1 and 2 subgroups, and A chords by alto 1 and 2 subgroups.

The composer's extension of early minimalism is evident in his approach to playing sustained fifth and octave figures in an antiphonal style in the altos and tenors, culminating in cue 21 (*Figure 9.10*, above). For example, La Monte Young's *Composition 1960 #7* (1960) asks the performer to hold a B and F# for a long time; Chatham regiments these simple tonal materials and his players to a much greater degree, as necessitated by the precise nature of these intricate passages, positioning the orchestra in a U-shape to spatialize this resonant music for a listener.

At cue 24, the sopranos and basses play a melody in two octaves, with a characteristic ascending whole-tone interval also used by the other melodies in this movement (*Figure 9.11*).²⁰ This is cued in with a half-note at around ninety-six beats per minute; here, the prominent use of largely consonant intervals – a major second, major third, perfect fifth, and perfect octave – provides a harmonious transition from one passage of the movement to the next.

²⁰ See the melodies in *Figures 9.7* and *9.15* also.

The image shows a musical score for Soprano 1 & 2 and Bass. Above the staves are five guitar chord diagrams: B (7fr.), C# (9fr.), A' (7fr.), A (5fr.), and E (1fr.). The Soprano staff is in treble clef and the Bass staff is in bass clef, both in 4/4 time. The music features a melody with accents (>) and a dynamic marking of *f*. A waveform visualization is shown below the staves, indicating the amplitude of the sound over time.

Figure 9.11: *A Crimson Grail*, Part 1, cue 24, melody played in soprano and bass.

Improvisation by musicians and the section leaders shapes the remainder of the work through a selection of choices from the score, for cues 25 to 36. This practice exemplifies Chatham's suggestion that the ostensibly 'minimal' role of each performer will be 'maximal', i.e., the music is more than the sum of its parts, a collective, interconnected endeavour.²¹

The composite waveform is augmented significantly by the introduction of improvised pitch material at cue 25. These choices are implemented by the arbitrary selection of material from the score by the musicians, to attack a note from the selection of pitches when no one else is entering (*Figure 9.12*). This unmetred 'raindrop' passage effects an unsynchronised shower of pitches that augments the harmonic-series modality – derived primarily from E pitches, and to a lesser degree, A pitches – with chromatic inflections, using B, D \flat , and D \sharp .

'Raindrop' relates to the composer's description of the combined musical effect of these sounds: 'like raindrops falling in a lake'.²² The chromaticism and dissonance of these randomly chosen pitches – based on an E major scale with an added minor seventh note – contrasts with the relative consonance and steady pulse of the antiphonal and polymetric cues that precede (cues 12-23). The movement from a largely stable fundamental tonal identity, to a wider selection of improvised pitches, with no clear rhythmic pulse, encourages a diffuse listening awareness that invites a listener to slow down and hear sound in its immanence – akin to Movement 3: Coda of *A Secret Rose*.

²¹ Chatham, *A Crimson Grail* (revised version) score, 2012.

²² *Ibid.*

Each group chooses from following pitch sets:

E E'

(E harmonic on 3rd or 15th fret, 5th fret, etc.)

Tenors

mf

3/15f 5f 7f 9f 5f

A A' B A/B D

(E harmonic on 3/15 or 12f)

Altos

mf

3/15f 12f

E' A B A/B E/D E/D# E''

mf

(E harmonic on 3rd or 15th fret, 5th fret, 7th fret, etc.)

Bass

mf

3/15f 5f 7f 9f 5f

Figure 9.12: *A Crimson Grail*, Part 1, cue 25.

The remaining passages of the movement display an indeterminacy of performance, where the section leaders and other musicians shape the content of the music through improvisation, within the parameters set out in the score. A kaleidoscopic sonority results from these improvised passages using pitches selected at random from the given E major scale with an added minor seventh. The tone and overtones that result from playing this myriad of tremolo parts at high volume generates and sustains a fluctuating sound field, given complexity and depth by the improvised dimension of the performance. Moreover, this improvisation is spatially dispersed around an audience using upwards of one

hundred amplifiers as discrete points of sound, filling up the acoustic space with dense timbral music.

Improvisation manifests itself in two distinct ways here. Firstly, section leaders select the pitch material from the score for the musicians to play, signalling these decisions with numbered cues (for example, cues 27-30 of Part 1). Secondly, individual musicians select material from the pitches given in the score (for example, cues 31-34 of Part 1). For instance, at cue 26, sopranos enter one-by-one, choosing a chord to play *tremolando* from one of two choices, to be held for a minimum of eight beats and with the exact duration of the phrase to be decided by an individual musician (*Figure 9.13*).

26 **Soprano 1&2** tremolo: Chord selection: Sopranos enter one-by-one, hold chord 8 beats minimum. Select chords at random (player's choice).

1. 2fr. (F# - 2fr. bar)

2. 5fr. (A - 5fr. bar)

Figure 9.13: A Crimson Grail, Part 1, cue 26, sopranos 1 and 2.

The improvisation increases when the section leaders choose material at random for the various sections by holding a cue card aloft, a numbered A4 sheet that corresponds to a set of pitches on the musicians' scores from cue 27. This signals what selection the players must sound with tremolo strumming: sopranos, altos, tenors, and basses in each of the four sections of the orchestra are then cued by their section leaders in cues 27, 28, 29, and 30 respectively (*Figure 9.14*).

These voicings on the guitar use multiple unison notes of the selected pitch on one instrument by holding a barre – laying the finger across the fretboard to hold a number of strings down at once – that can be moved up or down the fretboard to sound the various pitch selections. These pitches use the E major scale with added minor seventh, with prominent overtone content from the amplification, equalisation, and *tremolando* playing. This is a quasi-pandiatonic approach to structuring the improvisation, diverging from pandiatonicism per se with the addition of one chromatic note, and by layering the diatonic notes

with a bias in the selection. Players choose from ten pitches, four of which reinforce the fundamental tonal identity (E and A pitches) and the resultant harmonic-series-derived modality.

The cues that follow illustrate how Chatham incorporates musical choices made by an individual musician. In cues 31-33, each guitarist randomly chooses a selection from the pitch sets given to their group in the previous cues 27-30, beginning with the sopranos at cue 31, altos at cue 32, and tenors and basses at cue 33 (*Figure 9.14*). This increases the diversity and range of pitch material at high volume, using improvised multiple unison voicings on the guitar to destabilise the tonal identity.

Thereafter, the musicians continue to improvise these pitch selection as the volume of the orchestra rises from loud to very loud over several measures at cue 34, generating a dynamic waveform of notable density, resonance, rhythmic intensity, and volume. Indeed, the ascendant finale of Part 2B of this work uses the same harmonic structures as cues 27-30 of this movement (*Figure 9.14*). In this way, the composer's musical language synthesises minimalism's just-tuned timbres with rock's resonant (and sensuous) tonalities in an improvised, harmonic-series-derived music.

27 Soprano 1 & 2 tremolo: Section leader chooses selection of pitches.

Musical notation for Soprano 1 & 2, cues 27-30. The notation is in treble clef with a key signature of three sharps (F#, C#, G#). It consists of ten measures, each containing a chord. The chords are: 1. F#4, C#5, G#5; 2. F#4, C#5, G#5; 3. F#4, C#5, G#5; 4. F#4, C#5, G#5; 5. F#4, C#5, G#5; 6. F#4, C#5, G#5; 7. F#4, C#5, G#5; 8. F#4, C#5, G#5; 9. F#4, C#5, G#5; 10. F#4, C#5, G#5. A dynamic marking of *f* is present at the beginning of the first measure.

28 Alto 1 & 2 tremolo: Section leader chooses selection of pitches.

Musical notation for Alto 1 & 2, cues 27-30. The notation is in treble clef with a key signature of three sharps (F#, C#, G#). It consists of ten measures, each containing a chord. The chords are: 1. F#4, C#5, G#5; 2. F#4, C#5, G#5; 3. F#4, C#5, G#5; 4. F#4, C#5, G#5; 5. F#4, C#5, G#5; 6. F#4, C#5, G#5; 7. F#4, C#5, G#5; 8. F#4, C#5, G#5; 9. F#4, C#5, G#5; 10. F#4, C#5, G#5. A dynamic marking of *f* is present at the beginning of the first measure.

29 Tenor 1 & 2 tremolo: Section leader chooses selection of pitches.

Musical notation for Tenor 1 & 2, cues 27-30. The notation is in treble clef with a key signature of three sharps (F#, C#, G#). It consists of ten measures, each containing a chord. The chords are: 1. F#4, C#5, G#5; 2. F#4, C#5, G#5; 3. F#4, C#5, G#5; 4. F#4, C#5, G#5; 5. F#4, C#5, G#5; 6. F#4, C#5, G#5; 7. F#4, C#5, G#5; 8. F#4, C#5, G#5; 9. F#4, C#5, G#5; 10. F#4, C#5, G#5. A dynamic marking of *f* is present at the beginning of the first measure.

30 Bass tremolo: Section leader chooses selection of pitches.

Musical notation for Bass, cues 27-30. The notation is in bass clef with a key signature of three sharps (F#, C#, G#). It consists of ten measures, each containing a chord. The chords are: 1. F#4, C#5, G#5; 2. F#4, C#5, G#5; 3. F#4, C#5, G#5; 4. F#4, C#5, G#5; 5. F#4, C#5, G#5; 6. F#4, C#5, G#5; 7. F#4, C#5, G#5; 8. F#4, C#5, G#5; 9. F#4, C#5, G#5; 10. F#4, C#5, G#5. A dynamic marking of *f* is present at the beginning of the first measure.

Figure 9.14: *A Crimson Grail*, Part 1, cues 27-30: section leaders choose pitches for guitarists to perform *tremolando* within their section in all tuning groups.

At cue 35, Chatham signals the orchestra to sound a ringing chord with all players using their individual choice from the pitch selections. A ‘plainchant’ theme’ concludes Part 1 of *A Crimson Grail* – with a three-note phrase played in three octaves using a whole-tone interval characteristic of the melodic phrases used therein – to give a unified rhythmic and melodic ending after a movement of great duration, intensity, and scope (Figure 9.15).

The image shows a musical score for four parts: Sopranos, Altos, Tenors, and Bass gtrs. The score is in 4/4 time and has a key signature of three sharps (F#, C#, G#). The music is marked *mf* (mezzo-forte). Above the vocal staves, guitar chord diagrams are provided for D, E, and C# chords, with fret numbers (9fr. or 4fr.) indicated. The Soprano and Alto parts have a melodic line with a final sustained note. The Tenor part has a more rhythmic line. The Bass guitar part provides a steady accompaniment.

Figure 9.15: *A Crimson Grail*, Part 1, cue 36, 'plainchant theme'.

The theme's title reflects Chatham's admiration for mediaeval and sacred music, in particular, the Ars antiqua of Perotin and the Notre Dame composers of polyphonic music. *A Crimson Grail* has an affinity with the work of these composers as modal music comprised of a limited set of resonant tones, designed to evoke, and reflect, profound feelings, also composed for performance inside a Parisian cathedral. When I performed Chatham's music, the 'meditative' component of listening and performing was enhanced within the context of a large cathedral space connected with spiritual practices and contemplation. What is more, the complexity and immensity of the music was palpable.

In Part 1 of *A Crimson Grail*, the notated pitches and their functionality are incorporated in the context of justly-tuned sound for the vast majority of the movement's duration. Additions and shifts of pitch content are added dynamic elements that imply a measure of harmonic motion at times also, a quasi-tonal functionality; for example, shifts in the bass, to imply an E Phrygian or A

Mixolydian modality. However, as with the work as a whole, the emphasis upon amplification, layering, repetition, resonance, texture, and timbre assimilate these dynamics into harmonic structure created by the justly-tuned system. Drone metal is also characterised by this layering of ‘reverberant, haptic audio drones’ at high volume on guitars, featuring ‘dense, clustered chromaticism’ in order to create ‘humming, oceanic drones of strange aspect’.²³ Chatham’s aesthetic and practice is derived from early minimalism – especially, the use of the harmonic series, repetition, and stasis – augmented with chromaticism, improvisation, polymetres, quasi-pandiatonicism, and rock instrumentation and sounds, and as such, this is distinctly, a form of post-minimalism.

9.1.2 Part 2A

Part 2A of *A Crimson Grail* has a precisely scored ABCC form, encompassing a set number of bars, using chordal-oriented material derived from E Major; significantly, this also occurs in the context of the fundamental tonal structures of the tuning system sustained by open-string playing. This latter movement evidences a modal approach evident in *Die Donnergötter*, and developed in *An Angel* but with a scored chordal progression over sixty-four bars, rather than shorter, repeated sequences of handfuls of chords over durations of four bars or multiples thereof.

The score for this movement provides a broad indication of the pitches that comprise chords but not their sound in performance – these are transformed through drones and repetition, engagement with the harmonic series, timbres and textures, *tremolandi*, and the immersive volume of an orchestrated and spatialized sound. Thus, it evidences how Chatham’s music for electric guitar reconfigures notions of harmony, modality, and tonality. I determine the tonal system in Part 2A, analysing for common-practice voice leading and common-practice harmonic behaviours, and assessing these findings in light of the performance and listening experience. My analytical strategy here differs from Part 1 as this movement is more conventionally notated with chordally-

²³ Graham, *Notes From The Underground: A Cultural, Political, and Aesthetic Mapping of Underground Music*, 322.

orientated material derived from E major and indicating tonal progressions, despite the fact this score cannot adequately represent the final sonic result.

In Part 2A, tremolando chord sequences emanate from amplified, justly-tuned drones that foreground the workings of the harmonic series. This results in a plenitude of acoustic and psychoacoustic phenomena (overtones, resonance, sum and difference tones, etc.). As a consequence, the tonality of the composition is entwined with the listening process to the extent that these sequences do not, in practice, sound like functional harmony to a significant degree during a performance; instead, the effect is that harmonic complexity and density cumulatively increase as the movement unfolds, adding occasional inflections to, and shifts away from, the predominant justly-tuned frequencies.

This movement weaves antiphonal tremolos together to form a resonant sound that is fully scored, yet in effect, it is in free time, with no steady pulse. Part 2A is approximately ten minutes in length and consists of three sections: Letter A, Letter B, and Letter C. It is a rare example of when Chatham's work for electric guitars incorporates chords in sequences (*Figure 9.16*), albeit sounding unconventional due to the complex texture and timbre of the work: antiphony, chordal inversions, massed similar voices (via the instrumentation), multiple open-string drones and justly-tuned intervals, and *tremolandi* achieve this quality (another instance of this is during the Ramones' section of Movement 3 of *A Secret Rose* where standard tuning and chord sequences derived from rock dominate albeit without being embedded in drones). These chord sequences are as follows:

Part of movement	Bars	Chord sequences
Letter A	1 to 20	I-Vc-I-IV / I-Vb-I-IVb
Letter B	21 to 44	IV-Ib-Vc-I-iim7
Letter C	45 to 78	Ic-V-Ib-IV / Ic-V-Ib-IV / Ic-Vc-vic(sus4)-vic / Ic-V-Ib-IV / Ic-V-Ib-IV / Ic-Vc-vib(sus4)- vic(sus4)-vib(sus4)

Figure 9.16: A *Crimson Grail*, Part 2A, table of increasing sophisticated chord sequences embedded in the justly-tuned composite sound wave (created by author).

Letter A interweaves justly-tuned open-string drones and fretted notes sounding multiple thirds and fifths. Chords *crescendo* and *decrescendo* in opposite sections to render the sequence using four-part antiphony. These chords are embedded in the context of the harmonic series structures of the sustained tonal identity facilitated by the guitars' tuning system.

The initial I-Vc-I-IV chord sequence in bars 1-10, plays out in the following manner: the E major chord is played by section 1, followed by a B major (second inversion) played by section 3; this is followed by a repeat of the first chord by section 1, and the sequence ends with an A major chord played by section 3 (*Figure 9.17*). A variation of the four-chord sequence is then played alternately by section 2 and 4 in an antiphonal style: I-Vb-I-IVb, substituting a B major (first inversion) as the second chord, and A major (first inversion) as the fourth chord of the sequence, in bars 11-20. The soprano line holds the pitch B right through until the last chord, before dropping one scale step to B that, in the score, seems to reinforce the move to A in the final chord. By providing a degree of tension by holding this B while the first three chords change, there is also a degree of resolution with the fall to A.

In practice, the antiphony, texture, and timbre determine how the voice-leading is perceived when the work is performed, whereby the degree of tonal functionality is assimilated into the context of a composite sound wave pervaded by sustained justly-tuned *tremolandi*. In this movement, common-practice voice

leading is not always emphasised at surface levels, or is often irrelevant in the context of slow-moving 'sequences' built upon harmonic-series modalities.

Rich sonorities and subtle harmonic shifts slowly unfold in the context of a composite sound wave. Within this harmonic structure, each individual chord uses no more than three notes of the E major scale. Additionally, *antiphones*, *crescendos*, *decrescendos*, and *silences* obscure a listener's perception of the resultant harmonic structures as conventional linear progressions. As one section enters with a *crescendo* on a chord, another section *decrescendos* and then rests. This technique requires the conductor to control the volume of the two sections simultaneously, using a hand to conduct each of the sections in a kind of orchestral cross-fade (*Figure 9.17, 9.18, and 9.19*). In the Letter A section, the chordal harmony is played successively between two sections at a time; firstly, all instruments in sections 1 and 3 play as notated in bars 1-10, and then, in a similar fashion, all instruments in sections 2 and 4 play bars 11-20 (*Figure 9.17*).

Letter A Sec.1: in > (out) Sec.1: in > (out)

Section

Sec.3: out < (in) > (out) Sec.3: out < (in) > (out)

Soprano 1

Soprano 2

Alto 1 + 2

Tenor 1+2

El. Bass

Section 2: in > 11 13 (out) Sec. 2: in > 17 (out)

Section

Section 4: out < (in) > (out) Sec. 4: out < (in) > (out)

S1

S2

Altos

Tenors

Bass

Figure 9.17: *A Crimson Grail*, Part 2A, Letter A, bars 1-20.

By overlapping *crescendos* and *diminuendos* using opposing sections of guitarists to interweave these chord sequences, this movement maximises the

acoustic and spatial properties of the antiphonal arrangement. The sonorities resonate as they very gradually progress from one part of the chord sequence to the next – due to the tuning system that foregrounds the harmonic series – in an immersive, spatially dispersed composite waveform.

For instance, the tonal functionality operates largely via the emphasis upon movement (partly-stepwise) in the bass part during this movement, contrasted by the drone-based chords used by the remainder of the orchestra. The harmony is arranged across the SATB tuning groups to create open-position chords with widely-dispersed voicings covering distinct pitch ranges. The sound of this music is justly-tuned due to multiple just intervals: perfect unison, fifths, and different octaves layered upon this tonal identity, accentuated by the amplification and tuning system used, and frequently augmented by the acoustics (especially, resonance) of the venue where the work is performed, whether a large outdoor space or massive cathedrals.

In Letter B, a sequence of chordal material is played alternately by the four sections of the orchestra, in an antiphonal style, to expand upon the articulation, chord voicings, and spatial positioning of the guitar orchestra. This uses adjacent sections of the orchestra playing off one another, in two groups as the orchestra moves slowly through a sequence of: IV-Ib-Vc-I-iim7 (*Figure 9.18*). There is a lesser degree of tonal functionality and conformation to common-practice voice-leading in Letter B – while there are stepwise movements in the soprano and bass lines, the voice-leading is irrelevant at deeper levels.

Firstly, all instruments from section 1, and section 3 *crescendo* and then *decrescendo* alternately, and following this, section 2 and section 4 play the sequence of chords in the same way. In comparison to the chordal vocabulary in Letter A, this is a slightly more complex, five-chord sequence that sustains the final chord, holding an F# in the bass that sustained through the beginning of the Letter C sequence.

Again, common-practice voice-leading behaviours are recognisable in the changes in the bass part; however, the harmonic behaviours detail more progressive structures. The top and bottom of the chords create an increased degree of tonal motion: in sopranos the B pitch alternates with A, and the bass descends from A, stepwise down to E, ending on an F#. However, in live

performance, a listener's attention is upon vertical rather than horizontal listening – the now of extended duration defined by subjective perception and sensation rather than the objective scientific linearity of clock time – as enormous resonant timbres are foregrounded by holding the composite frequencies *tremolandi* at length, diminishing the sense of harmonic or melodic progression as such. This approach coincides with Karlheinz Stockhausen's 'moment form' as music that favours a listener's experience of sound in its immanence ('vertical listening').²⁴

For the Letter B passages, the harmony is again sustained at a very slow 'free time' tempo for four bars (as opposed to two bars in Letter A) while the alternating responses of each section move the chord sequence antiphonally around the orchestra. This basic technique of holding *tremolandi* chords at length without a discernible rhythm, that then transition from one chord to the next via antiphony, *crescendi* and *decrescendi*, and rests, invites a listener to focus upon the resonant tones and resultant overtones as a composite. The slower rate of chord changes sustains the resonant frequencies in the sequences for longer, foregrounding timbre and encouraging perceptualization. The meditative component becomes more notable as the movement progresses as the timbral focus and slower rates of change, for already very slow 'progressions', invoke a sense of immanence and tranquillity. The orchestrated timbral sonorities of massed guitars generate a sense of expansion, immersion, and timelessness through the slowly evolving music, without requiring loud volume.

²⁴ For more regarding Stockhausen's moment form, and its relation to repetitive minimal music see: Mertens, *American Minimal Music*, 101-102.

Letter B

The musical score for Letter B, bars 21-44, is presented in two systems. The first system covers bars 21-29, and the second system covers bars 30-44. The score includes vocal parts for Soprano 1 (S1), Soprano 2 (S2), Alto, Tenor, and Bass, along with a Section part. The key signature is three sharps (F#, C#, G#) and the time signature is 4/4. The Section part is marked with dynamics such as 'in' and 'out' with wedge-shaped symbols. The vocal parts feature various dynamics including *5fr.*, *7fr.*, *4fr.*, and *2fr.*, and are marked with *mf* and *f*. The first system shows Section 3: in at bar 21, Section 2: in at bar 25, and Section 3: in at bar 29. The second system shows Section 2: in at bar 33, Section 1: in at bar 37, and Section 2: in at bar 41.

Figure 9.18: *A Crimson Grail*, Part 2A, Letter B, bars 21-44.

The meditative aspect engendered by the slow tempo of this composite of sounds built around harmonic series drones plays is also rendered unconventional through the way in which the antiphonal parts blend into one another. The music does not have an obvious metre and is suggestive of timelessness or floating time associated with drone-based minimalism (for example, Young's 'Eternal Music') accentuated by the manner the justly-tuned frequencies flow, rising and falling waves of sound with a hypnotic timbre. This contrasts with the relative chromaticism and turbulence apparent intermittently through Part 1 and 2B.

Part 2A uses some repetition of chord sequences, although, the chords become gradually more complex and move away from repetition. At Letter C, the music interweaves sections 1, 2, 3, and 4 through a fifty-two bar sequence, in free time, where each section plays four bars alternately in an antiphonal style (*Figure 9.19*). This passage uses a binary form of eighteen bars with a first time repeat of six bars (twenty-four bars in total), and a repeat of the eighteen bars with a second time repeat of ten bars (twenty-eight bars in total). In this way, the central movement of *A Crimson Grail* features repetition on a small-scale material (pitches and rhythms) derived from the harmonic series modality, with only some large-scale repetition of material (phrases).

Open strings and inversions in the massed guitars sustain notes (small-scale repetition) through the chords played with sustained unmeasured *tremolando* for three bars each. Firstly: Ic-V-Ib-IV, Ic-V-Ib-IV, Ic-Vc-vic(sus4)-vic, with the last two chords of this sequence held for five bars and one bar respectively; then, Ic-V-Ib-IV, Ic-V-Ib-IV, Ic-Vc-vib(sus4)-vic(sus4)-vib(sus4), with the last chord of this sequence held for four bars (*Figure 9.19*). The suspended chords which conclude the second time repeat sets up the fundamental tonality of Part 2B also characterised by harmonic intervals of perfect fourths. Although the harmonic structures become more complex as the movement unfolds, which mirrors Chatham's layering tones to gradually increase the density and array of resonant pitches in *A Crimson Grail* and his body of work as a whole, these passages maintain a meditative, timbral quality that favours immanent listening.

Part 2A concurs with my explication of the composer's harmonic language as originating from the harmonic series; however, it incorporates antiphonal

sequences of chords into these sounds, in a more regimented form, distinct from the chromaticism, extended durations, improvisation, and iterated steady pulses of the other two movements. As a result, the tonal structure of this movement is simpler in comparison, and as it lacks a pulse also, this is less turbulent music, flowing along without dense chromatic inflections of the tonal identity or changes of rhythmic impetus or tempo.

Furthermore, the lengthy rests in between sustained chords break up a listener's perception of these sounds as sequences as such. Indeed, the chords become sustained for longer periods to foreground timbre and the experience of extended durations – a move away from the linearity of clock time – for a listener as the movement progresses.

The higher overtones audible from the outset of Part 2A remain throughout although the harmony becomes gradually more complex: the chords sustained with *tremolando*, the sequences used, and the length of these. A paradoxical sense of stasis from sustained tones and overtones prevails – despite a degree of tonal motion from fragmented chord sequences – as these sounds evoke a sense of suspension for a listener as they are sustained sonorously and then surge onward through progressions in slow motion. There are parallels here with the Introduction of *Die Donnergötter*, where graceful *tremolandi* parts unfurl, recalling the slow-motion modal music of Pandit Pran Nath. In this movement, the harmonic structures are also built upon the tonal identity sustained by the tuning system, and it exploits a degree of tonal motion – alongside antiphony – to create dynamic interest in lieu of the steady pulse of the earlier notated work.

Figure 9.19: *A Crimson Grail*, Part 2A, Letter C, bars 69-78.

In Part 2A, antiphony reshapes the multiple chord voicings into a sonorous texture of considerable density, resonance, and timbral brilliance. This renders a distinctive sound through the intricate antiphony of the four sections of the guitar orchestra, achieved by careful organisation of the musical forces by the conductor and the section leaders. Sean Higgins observes this music is ‘of an almost overwhelming beauty, warmth, and sonic thickness’.²⁵ At the performance I participated in, the timbral subtleties of these antiphonal, chordal passages were amplified by the resonant acoustics in the cathedral to ensure the harmonically related frequencies resounded sonorously, accentuated by *crescendi* and *diminuendi*, rests and silences, and the spatial arrangement of the musicians.

While Chatham’s earlier non-notated works for guitar used loud volume throughout to elicit overtones from the instruments and produce a physicality of

²⁵ Higgins, ‘A Deleuzian Noise/Excavating the Body of Abstract Sound’, *Sounding The Virtual: Gilles Deleuze and the Theory and Philosophy of Music*, edited by Hulse and Nesbitt, 2010, 75.

sound, this music benefits from a more refined approach to create an innovative antiphonal work with a striking sonority. The amplification, arrangement of musicians, and tuning system foregrounds the durational, meditative, and spatial aspects of the work – which creates an affective and immersive sound environment for a listener. These elements combine to present a listener with a sonorous timbral sound that invites perceptualization and a focus upon subjective interpretation of these experiences; akin to the ideosensory techniques of minimalism, these musical elements and attendant extra-musical phenomena evoke subconscious processing of sound (affect, perception, and sensation) and cause critical perceptions (of chord sequences, voice-leading, etc.) to recede.

Overall, the harmony here, as elsewhere in his oeuvre, is derived from the harmonic series, and not conventional. Whereas the outer two movements of the work explore tonal spectrality within justly-tuned structures, this movement absorbs sequences of chords in E major into those same structures. This central movement incorporates harmonic progressions into the harmonic series drones (via the guitars' open strings), and a small measure of tonal functionality that deploys a dynamic approach using the basses to highlight shifts in pitch content. Notwithstanding this, these shimmering chords are played *tremolandi* – which elicits significant overtone content – and these sequences combine antiphony, *crescendi* and *decrescendo*, and rests to defamiliarise the voice-leading and harmonic sequences by assimilating them into a justly-tuned music.

Additionally, the harmonic changes around the drones occur at a slow rate with each chord sustained in a free time feel at a very slow tempo, an aspect that largely negates any meaningful sense of harmonic or melodic progression for a listener; instead, the listening focus is upon voluminous timbres and their spatialisation, rather than common-practice harmonic progressions or voice leading.

This tonal functionality is often irrelevant for a listener in the context of the composite soundwave; there is a degree of common-practice voice-leading at surface levels – more so than in any of Chatham's work for electric guitar – yet it is still characterised and contextualised throughout by the harmonic series sounds originating from the tuning system.

9.1.3 Part 2B

As with the opening movement, Part 2B is structured by the orchestration of massed justly-tuned sounds, once again, augmented by layering diatonic and chromatic tones. This final movement iterates a steady pulse from the outset to place these sounds into a metrical framework upon which the composer very gradually builds up layers of sound (pitches, polymetres, textures, etc.) over the course of approximately twenty minutes. Improvisation, volume, and repetition combine to generate a musical sublime in live performance, particularly, during the ascendant and sustained finale.

Here, repetition on a microcosmic or small-scale level (pulses, timbres, tones, etc.), and macrocosmic or large-scale level (phrases and sections repeated) structures the harmonic material originating from, and exploiting the workings of, the overtone series. This corresponds directly with methods used to structure popular music identified by Richard Middleton as ‘musematic’ (small-scale repetition) and ‘discursive’ (large-scale repetition).²⁶

Part 2B, as with the preceding two, is approximately tripartite in form. Firstly, there is an accumulation of musical layers around fundamental tonal identity using ostinato and repetition of pitches, metres, and rhythms from cues 1 to 7. Secondly, the composer uses improvisation to layer pitches gradually, orchestrating these changes by cuing sections of the orchestra in, and then out, before returning to the opening ostinato-based motifs from cues 8 to 14. Finally, sections of the orchestra switch to tremolandi playing of an ascending figure at high volume, and then, one-by-one, players begin individual cycles of this material from cues to 15-21.

The movement opens with an *ostinato* in descending fifths from the subgroup soprano 1A using B and E pitches. Here, each subgroup is cued in section-by-section in the following order: section 1, 3, 4, and 2 (*Figure 9.20*). With the steady eighth-note pulse established, the soprano 2 subgroup is cued in by section to gradually *crescendo* from quiet to quite loud playing an *ostinato* figure in descending fourths using A and E pitches (*Figure 9.21*). This affirms the

²⁶ Richard Middleton, ‘In the Groove or Blowing Your Mind? The pleasure of musical repetition’, in *The Popular Music Studies Reader*, Bennett, Shank, Toynebee (editors) (London: Routledge, 2007), 15-20.

fundamental tonality and implies a suspension also, one that is sustained at length to heighten a listener's anticipation of a possible resolution.

1. Soprano 1A enters by section on the cue of their section leader.

Entrance order:

$\text{♩} = 112$ Section 1, Section 3, Section 4, Section 2.

Figure 9.20: *A Crimson Grail*, Part 2B, cue 1, sopranos 1A.

2. Soprano 2 enters softly, by section, on the cue of their section leader.

Entrance order: Section 3, Section 1, Section 2, Section 4.

Figure 9.21: *A Crimson Grail*, Part 2B, cue 2, sopranos 2.

After five minutes, the soprano 1B subgroup is cued to enter section-by-section with a gradual *crescendo* from quiet to quite loud, playing a steady eighth-note rhythm on an open-string E 'chord' at cue 3. The pulsed *ostinati* of cues 1 and 2 are joined by an E drone in the soprano register, with an eighth-note pulse, combining minimalist techniques: repeated pitch and rhythm patterns, stasis, and a steady pulse.

Thereafter, the fundamental tonal identity is alternately affirmed and destabilised. At cue 4, tenors enter with an arpeggio chord, sounded every four bars thereafter. This resounding chord is supported by bass 1 and 2 subgroups, while the remaining basses play their lowest E note to reinforce the fundamental tonality. Following this, a variation in material is played in the soprano 1B

subgroups in all sections, with the introduction of a chromatic inflection, a whole-tone interval between D and E (*Figure 9.22*).

A three-against-four polymetre is introduced at cue 6, with repetitive motifs in the alto group, and bass 3 and 4 subgroups (*Figure 9.23*). Here, the repeated G# to A movement creates a suspension against the sustained E pitches, while also implying the F# Dorian mode every four bars. These unison, triple-time lines in the alto and basses echo elements of the earlier 'plainchant theme' (*Figure 9.18*), reiterating the sequence of ascending whole tone, falling major third, and rising semitone intervals, giving thematic unity to the work. This also adds another layer of *ostinato* motifs, increasing the rhythmic intensity, and augments the harmonic series modality from the tonal identity.

5. Soprano 1B players enter together,
at Rhys' cue.

Entrance order: All S1B sections enter tutti on Rhys' cue.

Section

S1B

mf

D.C. Cue 5 with repeat.

S1B Continue playing this system until Cue 16.

Figure 9.22: A *Crimson Grail*, Part 2B, cue 5, soprano 1B subgroup.

		(3 endings)	(final ending, then D.C. w/repeats)
Section	Entrance: All sections enter tutti on Rhys' cue.	1, 2, 3.	4.
S1A		1, 2, 3.	4.
S1B	(Continue Cue 5 figure)	1, 2, 3.	4.
S2		1, 2, 3.	4.
Altos	(Play all fingerings on String VI.) <i>mf</i>	1, 2, 3.	4. Play system until Cue 15.
Tenors	(etc.)	1, 2, 3.	4. Play system until Cue 15.
Bass	(Bass plays on 4th-7th fret of D string) <i>mf</i>	1, 2, 3.	4.

Figure 9.23: A Crimson Grail, Part 2B, cue 6.

These polymetric figures heighten the sense of accumulation through sustained *ostinati* and layering metres, colouring the tonal identity with implied modes, to increase the harmonic and rhythm intensity further. At this point, the music is divided across the instrumental groups and subgroups, and after the entrance of two designated tenors in each section with a steady eight-note open E chord at cue 7, the entire orchestra is playing together, several minutes after the movement has begun.

Part 2B features improvised sections that interpret the material in performance. After sopranos 1A and 2 drop out on a massed ringing E at cue 8, both of these subgroups re-enter at cue 9 with a pitch selection: F#, G#, or A, chosen by the section leaders from the score (Figure 9.24). This cue is played *tremolando* with open-string drones in E, and with modal inflections: F# Dorian, G# Phrygian, and A Lydian. This accentuates the polymodality of the polymetric motifs introduced in altos and basses at cue 6.

9. Soprano 1A & Soprano 2 tremolo. Section Leader chooses chords.

Entrance: Soprano 1A and Sop. 2 enter tutti at respective Section Leader's cue.

The image shows a musical score for Soprano 2 (S2). It consists of three measures, each with a guitar chord diagram above and a musical staff below. The first measure is labeled '1.' and shows an F# chord with a 2-fret diagram. The second measure is labeled '2.' and shows a G# chord with a 4-fret diagram. The third measure is labeled '3.' and shows an A chord with a 5-fret diagram. The musical staff is in a treble clef with a key signature of two sharps (F# and C#). The dynamic marking is *mf*.

Figure 9.24: A Crimson Grail, Part 2B, cue 9.

When the section leaders cue in these same two soprano subgroups at cue 10, the individual musicians select pitches to play *tremolando* from the score (given in *Figure 9.24* above) to unsettle the tonality – and a listener’s expectations – further. At cue 11, the soprano subgroups 1A and 2 sound out a final ringing chord, held for four bars. Cues 6-11 increase the intensity of the movement by introducing *tremolando* figures and improvisation, raising the level of volume and overtone content.

At cue 12, soprano 1B and 2 subgroups re-enter playing the motifs from the opening of the movement (*Figures 9.20* and *9.21*, above). Designated tenors reiterate their open-string E chord strum on an eighth-note rhythm – re-establishing the tonal centre and eighth-note pulse – before a return to improvised material that inflects the tonal centre using *tremolando* strumming at the next cue. From cue 13, Sopranos 1B and 2 begin to select pitches, given in cue 9 and 10 (*Figure 9.24*, above), before cutting out again in cue 14, and switching back to the opening motifs again (*Figures 9.20* and *9.21*).

This back and forth between tonal stability and uncertainty functions by alternating a harmonic series modality derived from the tuning system enhanced by repeated *ostinati*, with improvised equal-tempered inflections. Thus, harmonic and rhythmic activity is intensified and then decreased through cues 9 to 14, while a continuous sound form with a steady pulse is maintained. The tonal and modal issues are similar in Part 1 and 2B, rather the method of restructuring the justly-tuned music around a steady pulse, drones, and *ostinati* invigorates the finale with a relentless, driving force sustained for twenty minutes duration.

This continuum of sound is intensified again with an ascendant finale; here, all parts of the orchestra gradually switch from playing the *ostinato* figures to a rising E Major *tremolando* scale over eight-bar cycles (cues 15 and 16). This upward motion begins in the tenors at cue 15, cued in the following section-by-section order: section 1, section 3, section 2, and section 4 (Figure 9.25). At cue 16, each section leader cues the remaining musicians within their sections to switch from the previous *ostinato* figures, from lowest to highest register: bass, alto, soprano 2, soprano 1B, and soprano 1A groups, to reinforce the tenors' ascending eight-bar *tremolando* established in the previous cue (Figure 9.25).

This increases the density, rhythmic subdivision, and volume of the sound as the instruments are gradually cued in to align the entire guitar orchestra with the tenors' ascending eight-bar scalar figure. Chatham also deployed massed ascending tremolo figures to generate an intense rhythmic and timbral sound in *Die Donnergötter* (Allegro, cue I and I2), and *A Secret Rose* (Movement 4), building upon the gradual rhythmic intensification (albeit improvisatory) evident in *Guitar Trio*. Although its basic approach is comparable to the conclusions of these works, the finale of *A Crimson Grail* is of greater complexity, density, and duration and it deploys considerably larger forces to spatialize a dynamic sound that elicits a distinctive, intense affect.

15. Tenor tremolo entrance. In strict time at Section Leader's cue.

Entrance: Section 1 enter first, Sec. 3, Sec. 2, Sec. 4 all on Rhys' cue.

The musical score for Figure 9.25 consists of two staves. The top staff is labeled 'Section' and contains a series of empty staves with repeat signs at the beginning and end, indicating where different sections of the orchestra enter. The bottom staff is labeled 'Tenors' and features a treble clef, a key signature of three sharps (F#, C#, G#), and a forte (*f*) dynamic marking. The tenor line begins with a tremolo figure (indicated by a wavy line) and an ascending scale starting on E. Above the tenor line, guitar fret diagrams are provided for sections 1, 3, 2, and 4, with fret numbers 1fr., 4fr., 5fr., 7fr., 9fr., 11fr., and 12fr. indicated. The tenor line ends with a double bar line and repeat dots.

Figure 9.25: *A Crimson Grail*, Part 2B, cue 15.

The quantity of resonant frequencies grows exponentially from cue 17, as individual guitarists start cycles of eight-bar tremolo sequences. They begin on a scale-note of their choice from the selection given in the score; in effect, creating an enormous canon that incorporates every musician in the orchestra (Figure 9.26).

At cue 18, the orchestra rises from very loud to extremely loud to bring the amplified musical forces to full power; here, the ascending figures, plethora of resonant acoustic phenomena, steady pulse, and visceral force of the guitars produce a powerful composite waveform of significant physicality, overtone content, and resonance (*Figure 9.26*). As the music's antiphonal complexity, density, resonance, and volume are greatest here – at very high levels of intensity – these are moments when profound feeling, including ecstatic states may be evoked through the music.

This structural progression in Part 2B, as in Part 1, occurs via an accumulation of layers of chromatic and diatonic pitches, polymetres, and textures (primarily *tremolandi*). This differs from the other movements in that it uses a steady pulse throughout – which recalls Chatham's earlier works for electric guitar using full drum-kit. Crucially, in *A Crimson Grail*, the composer's orchestration of massive musical forces renders relentlessly iterated rhythms and ostinati with high volume physicality to elicit the ergotropic potency of entrainment and frisson; this combines with a resonant spatially-dispersed and subtly-shifting timbre that can activate the trophotropic potential of perceptualization.

16. Everyone else enters on tremolo.

Section leaders bring in their guitarists in the following order:
Bass, Altos, S2, S1B, and finally S1.

18.

Everyone crescendos to *fff* on Rhys' cue.

17. Individual players enter on different degree of Tenors' diatonic scale.

The musical score consists of seven staves. The top staff is labeled 'Section' and shows a tremolo pattern starting at cue 16. Below it are staves for guitarists S1A, S1B, S2, Altos, Tenors, and Bass. Each staff shows a diatonic scale starting at a different fret: S1A (11fr, 12fr, 1fr, 4fr, 5fr, 7fr, 9fr), S1B (11fr, 12fr), S2 (6fr, 7fr, 9fr, 11fr, 12fr, open, 2fr, 4fr), Altos (6fr, 7fr, 9fr, 11fr, 12fr, open, 2fr, 4fr), Tenors (6fr, 7fr, 9fr, 11fr, 12fr, open, 2fr, 4fr), and Bass (6fr, 7fr, 9fr, 11fr, 12fr, open, 2fr, 4fr). The score includes dynamic markings such as *f* and *fff*, and a crescendo hairpin leading to *fff* at cue 18.

Figure 9.26: *A Crimson Grail*, Part 2B, cues 16 to 18.

As the finale peaks, cue 19, uses the alto tuning group to play a variation of the 'raindrop' theme quietly underneath the diatonic E major canon sustained by the remainder of the orchestra. At cue 20, Chatham signals the orchestra to strike one last chord in unison – from whatever degree of the canon they are on – to sound an E major conglomeration. The altos continue to play the 'raindrop' theme, one single, sustained pitch at a time, anywhere upon the fretboard, until at the final cue, they *decrescendo* from quite loud to extremely quiet before they end on a gentle, ringing note.

This improvised, unmetred concluding passage allows the intensity generated by the steady momentum and sustained tonality in the movement to subside gradually, rather than stop suddenly, by reducing the sound to a quarter of the

orchestra playing random single sustained tones. These improvised sections allow an individual to listen, free from distractions of harmonic or melodic progressions and or a regular rhythmic structure; after the hour-long performance, this open-ended conclusion provides a listener with space to reflect upon their experience of *A Crimson Grail*.

One performer noted the euphoria and intensity created by the finale at the Liverpool concert: 'as soon as the chords started climbing and everyone was part of it I started feeling great. Like a mad, intense rush [...] ecstatic'.²⁷ Another performer concludes it was 'the most moving musical experience' of his life, connected with 'the repetition, the build-up, the fact that people in the audience were crying as we played it', and states that this experience 'led to a high that lasted around three days'.²⁸ Similarly, a critic observed at another performance: 'the roaring finale transformed a simple ascending diatonic scale into a vehicle for visceral catharsis'.²⁹ A reviewer suggested that a recording of this finale played loudly 'threatens to lift the listener off their feet', a 'sound that achieves an immersive, exultant sense of the sublime'.³⁰ Indeed, another writer who attended the aforementioned Liverpool concert noted the difficulty 'the physical effects a performance of this scale has on the viewer'.³¹

As a performer, these were moments of extended duration, where the depth of feeling (from my personal, psychophysiological response) and the emotion (as a shared, social experience) evoked by the intensity and magnitude of sound privileged an intense being in the *now*, when perceptual boundaries expanded – particularly, constructions of subjectivity and time – in an immanent engagement, simultaneously embodied and sentient.³² This was an ecstatic experience where liminal states of consciousness between self and other were realised in the social context of a live performance. I interpret these profound

²⁷ Pete Phythian, interview with the author, 2014 (see Appendices).

²⁸ Barry, interview with the author, 2014 (see Appendices).

²⁹ Steve Smith, 'Guitarists by the Hundreds, With a Funk Chaser, Power an Outdoor Concert', 2009, <http://www.nytimes.com/2009/08/10/arts/music/10rhys.html>. Accessed 11 May 2014.

³⁰ Colin Buttimer, 'Review of Rhys Chatham: A Crimson Grail', 2010, <http://www.bbc.co.uk/music/reviews/xx8r/>. Accessed 17 September 2013.

³¹ Thomas Jefferson, 'Rhys Chatham: Liverpool Cathedral – *A Crimson Grail*', 2012, http://www.getintothisco.uk/2012/09/rhys_chatham_liverpool_cathedr/ Accessed 30 August 2014.

³² Although I was required to retain a degree of self-awareness because of my responsibilities as a guitarist, the immediacy created through the music's participatory and physicality elements brings a perceptual focus on the present moment.

listening experiences primarily as neurophysiological in origin – although the social setting is certainly a factor too – and catalysed by trance-inducing musical elements either acting independently or in concert. In this manner, *A Crimson Grail* synthesises just tunings and the workings of the harmonic series ('pleroma music'), minimalist techniques, and the intensity and tonality of rock to actualise experiences of immanence and sublimity through music.

Concluding Thoughts

A Crimson Grail is music informed by an aesthetic of the immanent sublime; therein, the conceptual, formal, and perceptual concerns of post-Cagean art are synthesised with rock music's libidinal energy and sound. As detailed in the preceding close reading, the harmonic series, in conjunction with repetition, and layering of musical sounds, forms the basis of the compositional structures in this music, features that also characterise the composer's body of work for electric guitars, and his broader compositional output. In this and the composer's other works for electric guitars, the meaning of music is differentiated by subjective auditory experience characterised by an immanent sublime of music. This is to 'testify to a difference', where the task of an artist 'is not to supply reality but to invent allusions to the conceivable which cannot be presented'.³³ This musical aesthetic corresponds with Jacques Attali's proposition that 'the world is not for the beholding. It is for hearing. It is not legible, but audible'.³⁴

The composer's use of amplified and sustained justly-tuned tones on electric guitars, emphasising acoustics and psychoacoustics, modality, pandiatonicism, and chromaticism, prefigure and have notable similarities with contemporary rock tonality and modality, particularly, drone metal. The functionality of implied tonal motion is often rendered irrelevant at deeper levels in Chatham's works – as is the case in *A Crimson Grail* – in the context of the structural innards of harmonic series sound sustained by the tuning system, which remains remarkably constant throughout the works. At a surface level, the tonal function does not often move from one tonal area to another, rather, the harmonic

³³ Lyotard, 'What is Postmodernism?' (1983), 80-82.

³⁴ Jacques Attali, *Noise: The Political Economy of Music* (translated by Brian Massumi), 1985, 3.

structure expands to encompass additions of pitch and shifting dynamics around the tonal identity, and occasionally, contracts back to it. Common-practice harmonic and voice-leading behaviours are often irrelevant on a surface level; an aspect that coincides with Everett's (6a) definition of early metal tonality, such as Black Sabbath.³⁵ Chatham's tonal system in his work for electric guitars shares much in common with drone-metal tonality – as defined by Graham's categories 7a and 7b – through iterated drones, high volume saturation, spectrality, and at times, total chromaticism. It similarly uses repetition to structure these sounds on a small- and large-scale to create profound listening experiences through high volume affect.

Repetition serves as a structural principle alongside the overtone series. This holds true for all of Chatham's music for electric guitars, aligning with the composer's distinct minimalist technique of composition. Kyle Gann traces the development of downtown composers using complex polyrhythms and whole number ratios during the 1990s – influenced by Henry Cowell's work in this area, Cage's use of rhythm as a means to structure music (rather than harmony), and rock resources (instruments, rhythms, tonalities) – including: Chatham, Michael Gordon, Ben Neill, Larry Polansky, and Mikel Rouse.³⁶ In Chatham's case, regular rhythmic repetition of the overtone series material derived from the tuning system serves to work the harmonic structures into periodic frameworks.

The tactic of stacking tones characterises Chatham's work for the instrument. In the non-notated works, this is evident in the method of establishing a tonal identity and elaborating upon it by adding pitch frequencies (tones and overtones) to it to explore the resulting tonal spectrality. This method of expanding upon the drones through layering multiple instruments with similar voices extends the earlier studio-based experiments of layering tones in electronic music and drone-minimalism at NYU, and downtown composition into large ensemble works, crossing into popular music, and reaching a wider audience. In the notated music, the strategy differs depending upon whether antiphony, chromaticism, improvisation, modalities, and SATB orchestration are

³⁵ Everett, 2004.

³⁶ See Gann. 'Downtown Beats for the 1990s', 1994.

used, and the resulting complexity of sound depends upon how many guitars are playing concurrently and in what manner: *Die Donnergötter* incorporates chromaticism, modality, and a prototype of the later SATB orchestration – involving stratification of the guitars into voicings – but without antiphony or improvisation; *A Secret Rose* shares these features apart from antiphony; *A Crimson Grail* displays all of these factors, at times, simultaneously.

Therefore, it is possible to see how the composer's strategy became more refined, and gradually encompassed a broader range of increasingly composerly devices as he developed his body of work for electric guitars. The import of the distillation and synthesis of musical components evident therein, and the composer's wider significance, will be discussed in the concluding chapter to follow.

Conclusions and Future Research Directions

This thesis sought to address the problem of providing a critical reading of the aesthetic and practical components of Rhys Chatham's music for electric guitars, by clarifying how a composer-performer, coming from a Western classical tradition distilled, and synthesised, elements from a variety of musical contexts – primarily, minimalism and rock – to develop a characteristic form of post-minimalism.

A key feature in the development of Chatham's aesthetic and practice was the use of minimalist techniques that distilled music to simple components with notable psychophysical affectivity – beyond the mainly cerebral focus of previous avant-garde composition – frequently using amplification, a steady pulse, and repetition of rhythms, timbres, and tones to engage a listener's autonomic nervous system. These post-Cagean techniques – used by composers such as Amacher, Chatham, Conrad, Palestine, Radigue, Riley, and Young – developed timbres of great density through layering and repetition of simple harmonically-resonant materials in music characterised by immanence. These approaches often intuitively shaped sound in the moment (sometimes collectively in ensembles), and featured listening modalities that were participatory and perceptual.

Notably, Chatham's relation to the post-Cagean avant-garde and popular music subcultural scenes (psychedelia, no wave, and noise rock) detailed in this thesis revealed aesthetic and practical overlaps: a preoccupation with profound consciousness-alteration and immanence, often in tribally organised groups; a tendency to privilege sentience, especially, the embodied and the sensuous; and, participatory elements in composing, listening, and performing music. This is an indication of the broader cultural milieu of late-twentieth century music, particularly, postmodern tendencies in popular music (disco, electronica, hard rock, hip-hop, krautrock, psychedelic rock, punk, etc.) using amplified, electrical, and electronic means to engage an audience – individually and collectively – on

a number of levels through powerful stimuli encouraging both profound subjective responses and social bonding.

Indeed, a vital component of Chatham's musical development was foregrounding participation for individual listeners and performers that exploited difference and specificity originating in constructions of subjectivity. This participatory aspect was distinctly postmodern, and aligned with Barthes' conception of the individual as point of active reception in art, Kramer's definition of postmodern music as locating meaning and (sometimes) structure with a listener, and Bishop's two modes of participatory art: to provoke participants and embrace collective creativity.

Crucially, the distillation and synthesis of the composer's work coincided with postmodernism's primary impulse to select and combine; the predominant feature that Rutherford-Johnson, and Ben Neill, observed in Chatham's music and in his contemporaries. This individual freedom of choice in Chatham's composition was also the means to create his own personal musical voice and identity as a composer. Chatham was part of generation of postmodern artists with backgrounds in avant-garde 'high' art who sought to create work that moved beyond the disciplinary, generic, and institutional boundaries established by previous practitioners, especially, by recoding 'vernacular' elements therein – evident across music, dance, and the visual arts – as detailed in Chatham's work, and that of his collaborators: Karole Armitage, Robert Longo, and Michael Zwack.

Chatham was among a generation of downtown composers born and raised in the post-1950 era – when teenage and youth culture in the West came into being – and whose work with popular music extended Cage's endeavours. He did this in four notable ways with his music for electric guitars to synthesise avant-garde and popular styles. Firstly, he broadened the sound palette in composition to incorporate rock's instrumentation, its performance approaches, and tonality, and extended minimalism into rock. Secondly, he augmented the use of rhythm as a structural device to encompass improvisation, polymetres, and rock rhythms. Thirdly, he amplified the timbral and textural focus of Cage through high-volume amplification, layering, and multiplication via numerous

guitarists. Lastly, he emphasised listening as a means to evoke immanence in the context of loud rock-influenced post-minimalism that synthesised the sensuous and affective nature of rock with a cerebral and meditative Cagean focus.

I classified this work as an idiosyncratic form of (post-Cagean) post-minimalism, albeit encompassing significant elements of rock, and partially located, geographically and musically in a popular music context. In his works for electric guitars from 1976 to 1982, I acknowledged and accounted for the composer's borderline aesthetic, his radical pluralism, its drastic musical critique of the generic marketplace, and his assertion of freedom from academicism and convention. Chatham played the role of a 'serious' composer yet subverted expectations of what that might entail, injecting a sense of exhilaration, fun, inclusivity, and vigorous energy into individual avant-garde musical composition, with analogies to the persona-driven approach of rock music outlined by Kim Gordon. Nonetheless, through his body of work for electric guitars, Chatham asserted his role as a post-Cagean composer, rather than Conrad's iconoclastic model of collaborative music-making and, in so doing, he retained primary control over the music, and a certain degree of cultural prestige coming from a 'high' art tradition.

Chatham's harmonic structures were also idiosyncratic, using justly-tuned fundamental tonal identities – synthesised with equal tempered sounds in the notated works – to create harmonic series modalities, moving beyond conventional common-practice harmonic progressions and voice-leading. The resulting pleromas of sound were subjected to minimalist techniques of composition to render a complex, dense, and voluminous textural and timbral music. Beginning with *Die Donnergötter*. Chatham's post-Cagean compositions for electric guitars from the mid-1980s developed this justly-tuned music using conducting and a musical score, incorporating chromaticism and modality, and in the later guitar orchestra works, improvisation also. The improvisation across Chatham's body of work music derived from his involvement with early minimalism, free jazz, MEV NY, Pandit Pran Nath's music, and rock.

In all of the composer's work for electric guitars, and his earlier non-notated work drawing upon drone-minimalism, the overtone series is foregrounded as the primary musical element. This approach was refined by Chatham over the course of developing these compositions: the increasing sophistication of timbres evident from *Two Gongs*, *Drastic Classicism*, and *A Secret Rose* shows how he synthesised orchestration, rock performance techniques, scores, and tuning systems to augment the practice of amplification, equalisation, and layering of sound. With the notated works, the timbres become progressively dense and stratified using tuning groups of larger numbers of guitars, scored using more complex forms drawing upon the overtone series and repetition – and improvisation in the guitar orchestra works – to expand and increase the tonal spectrality.

Chatham's body of work for electric guitars heralded characteristics of contemporary rock of an avant-garde nature, specifically, the use amplified resonant guitar sounds foregrounding textures and timbre as a means to explore human subjectivity; for example, drone metal, experimental rock, noise rock, and post-rock. Although this was apparent in some of The Velvet Underground's minimalist-influenced work from 1967, the composer's music explicitly foregrounded extremely dense timbres through amplification, equalization, layering, repetition, steady pulses, and textures from the massed guitars over long durations, a focus that produced an inherent sense of immersion and psychophysiological participation – including entrainment, frisson, and perceptualization. This coincided with the emergence of a postmodern immanent sublime, with a focus on affectivity, perceptions, and sensuous pleasure to engage subjectivity (frequently within communal or shared musical experience), which was evident in the avant-gardism across western music (classical, jazz, rock, etc.) from the late-1960s onward, including Chatham's music.

These concerns with immanence, subjectivity, and sublimity in art are prominent in post-1968 philosophy also. For example, Attali's musical gnosis where the world – and life – can be experientially understood through audible means; Deleuze's immanent sound plane, where music is a means to evoke prepersonal forces for an individual; Foster, who conceives structures of

subjectivity being engaged and transformed through postmodernism art; Lyotard, whose aesthetic was concerned with pushing subjectivity to its limits through avant-garde art that eschewed pre-established forms to render a strong sense of the sublime; and Wurth's immanent sublime whereby affect moves subjectivity to a liminal space at its very limits, and provides a glimpse of what may lie beyond those limits. This method of rendering non-sonorous forces sonorous is also harmonious with the integrative or spiritual component of music.

In *An Angel Moves Too Fast to See/A Secret Rose* and *A Crimson Grail*, Chatham's innovations extended into 'populist' compositions that proved influential for composers seeking to realise grand works that featured volunteer performers and reached a wider listenership. These works engaged participants through improvised choices and ensemble playing – and engaged listener's via participatory listening modalities – in a multi-faceted and resonant composite characterised by ebullience and exhilaration. This was an art 'for the many not the few':¹ inclusive, egalitarian, and concerned with difference and specificity. Therein, the interrelation the individual and the collective in society was addressed through focused social action that rendered music to enliven body and mind through emotionally-stimulating, intellectually-challenging, participatory, sensuous, shared, and sublime experience. Notwithstanding, an egalitarianism sensibility – derived from minimalism and punk's shared desire to reduce the gap between participants and music – and the works' broader public engagement, they have had a relatively limited commercial appeal.

These works displayed postmodern tendencies in music focused upon the individual, that operated across 'high' and 'low' art and tangentially with commercial and institutional infrastructure of the mainstream (concert halls, international art festivals, etc.), with implicit (though not explicit) concerns with the social and political. However, the notated works resisted the dystopian tendencies of postmodernity, and deviated from Cox and Warner's outline of postmodern aesthetic in music, in that regard, and the politics of estrangement from mainstream culture evident in the downtown avant-garde of the 1970s and no wave, including Chatham's non-notated work for electric guitars.

¹ To paraphrase The British Labour Party's election manifesto of 2017.

This was a continuation of a wider cultural preoccupation with exploring and expanding consciousness that arose to prominence in the western world post-1945, and flourished in the following decade, though writers such as Huxley and Watts, who combined Eastern mysticism and Western intellectual rigour, and musicians such as Cage and Stockhausen. This concurs with gnostic currents in downtown composition aimed at the realisation of profound experiential states of consciousness, prefigured by Scriabin's compositions derived from a resonant harmonic holism. Chatham's work was also informed by this aesthetic sensibility, albeit reconfigured as an immanent postmodern sublime, drawing upon, and crossing over into popular cultural forms. This drive to experience life in its immanence through art, beyond pure rationality, was a direct and profound means to explore subjectivity and how one relates to the world at large (to 'know thyself'). This was also a refusal of the grand narratives in 'major' cultural, political (capitalist), and religious systems in the West, and provided individuals with a means to subvert, and reimagine historically-conditioned constructs maintaining hegemonic power and regulating discourse. This was in keeping with the premise of the avant-garde to renew culture, and society, and the capacity of art to create sublime experiences to renew on an individual and on a collective level.

I provided extensive analytical readings of key works, combined with interpretative arguments to contextualise the significance of the music. I choose to foreground the musical aesthetic and practice in this way to avail of unpublished performance directions and scores, and my subjective accounts performing several of these works, to establish how these relate directly to the music's sociological and technical aspects. In the absence of substantial scholarly writing on his work, there was, at times, an unavoidable reliance on the composer's statements and other non-scholarly sources at times; however, I addressed this by establishing, in a critical manner, how and why the music for electric guitar developed and was realised, and what Chatham's lasting significance as a composer might be.

I established Chatham's wider significance as an avant-garde composer ('minor figure') whose radical music challenged the categories and narratives of 'major history'. His selection of specific aspects of rock, to augment and transform the

musical skills he gained in downtown music, created work that could operate liminally between these genres without being limited to, or identified with, any one genre-specific approach. Postmodern concerns with freedom of choice and individuality in composition, performance, and listening were foregrounded in music that detailed a post-Cagean a desire to innovate and expand consciousness; herein, Chatham synthesised rock's physicality and sensuousness – and its populist appeal – with strategies from downtown music, especially, minimalism. This idiosyncratic post-minimalism was informed by an aesthetic of the postmodern immanent sublime, involving participation, sentience, and subjectivity, and connected classical composition with musical currents outside that domain, particularly, avant-gardism in forms of rock music.

My research has shown that Chatham's participatory and pluralist activity facilitated a dialogue between avant-garde and popular forms within a cultural context that sought to investigate the relative values of 'serious' and 'popular' music; he broadened the scope of musical aesthetics and practice for artists who followed through work that reimagined, and reinvigorated autonomous avant-garde artistic practice. In his body of work, as a whole, the composer primarily uses harmonic-series structures, minimalist techniques (especially, repetition), improvisation, and layering/multiplication of pitches. This is an extension of his heterogeneous postmodern practice, characterised by an immanent sublime of music. Due to considerations of space, it was not possible to include all the research upon this topic, or cover other areas of scholarly importance. In particular, a study into Chatham's music for brass – especially *For Brass* (1982) – would provide valuable scholarship on an overlooked area of the composer's work. Additionally, a more comprehensive survey of Chatham's activities with music for electronics and trumpet could be undertaken with his work for electric guitar, gongs, keyboard, and voice, in order to provide a critical account of these more recent activities traversing classical, jazz, and rock. The work for electric guitars has proved more culturally significant as a sub-oeuvre, thus far, due to its appeal and innovations across classical and rock, including the large-scale participatory compositions comprised of hundreds of volunteers.

Questions of gender politics were not addressed substantially in this thesis, and this aspect could provide further pertinent studies in this area. In the composer's

guitar orchestra works, the number of female to male guitarists is uneven (as in rock music), with an excess of the latter, and a comparative dearth of the former. Nonetheless, Chatham has actively sought to work with female musicians from the very beginning of his engagement with popular music – including encouraging applications from female musicians for the guitar orchestra works – and women were a prominent feature of many of his ensembles. For example, Nina Canal was the first additional guitarist who performed his work for electric guitar, and the most frequent performer alongside the composer from 1977 to 1981, while Karen Haglof and Susan Stenger featured prominently in his ensembles of the 1980s. Further research exploring these and the other numerous female artists and musicians in no wave and post-no wave rock scenes (touched upon very briefly in this research) would provide further insights into an exciting and overlooked area.

A more extensive investigation of subjective auditory experiences of music documented in the present research would provide an opportunity to create constructive studies studying the processes and import these, particularly, its psychological, physiological, and sociological aspects. I provided an interpretation of the connections between contemporary music, concepts of spirituality, and the sublime – connected to alterations of consciousness – in relation to Chatham's work for electric guitars, his peers, and those who followed after him. Here, quantitative research methodologies, and formal ethnography could provide further insights and assist in this regard also. Although interview material was gathered for this thesis, and assisted with shaping the text and providing insights, an in-depth examination of these case studies of performers' experiences of this music was not feasible due to considerations of space. Moreover, it would be possible to survey this area more extensively in the future to provide a comprehensive and quantitative study, including more participants, especially performers from the 1970s through to the 1990s.

A comparative analysis of Chatham's music and that of one or more of his peers – for example, Laurie Anderson, Glenn Branca, Peter Gordon, or John Zorn – would benefit academic research in this area as well. A detailed historical and musicological reading into Branca and Chatham's music for electric guitar would be pertinent to examine how these composers developed their music for the

instrument over nearly four decades. The connections between avant-garde classical, jazz, popular, and rock in downtown music, as outlined in this research is a vast, and largely underexplored subject that is deserving of academic study. Through figures such as Chatham, it is to be hoped that this will continue to be explored.

I endeavoured to present a critical reading of Chatham's work in this thesis to provide an original contribution to knowledge. It was my intent that this research would clarify the development of his aesthetics and practice for electric guitar in the context of contemporary music, provide a study of the composer's work and the cultural milieu within which he operated, and interpret the wider significance of his body of work. I hope that this thesis will generate scholarly debate and further research into this multi-faceted artist's work.

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² Note: in the main body of text for this thesis and this Bibliography I have included the year of the edition of the book consulted, not the first edition. Also, the year of an article (from a collection of articles) is given in brackets, only when it is from a year other than that given for the collection.

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⁴ Note: this is a different version of the essay of the same title included in *Undercurrents: The Hidden Wiring of Modern Music*.

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4. Permissions

CHATHAM, Rhys, *A Crimson Grail* (Revised Version) (2009) © Post Minimalist Music Publishing Company (BMI), used with the permission of the composer, edited version performed at UK Premiere, Liverpool Cathedral, 2012.

-----, *A Secret Rose* (2006) © Post Minimalist Music Publishing Company (BMI), used with the permission of the composer, edited version performed at UK Premiere, 2014.

-----, *Die Donnergötter (The Thundergods)* (1987) © Post Minimalist Music Publishing Company (BMI), handwritten score (Introduction and Allegro) and typeset score (Adagio), used with the permission of the composer, undated.

-----, *Drastic Classicism* (1981) © Post Minimalist Music Publishing Company (BMI), used with the permission of the composer, undated.

-----, *Guitar Trio* (1977) © Post Minimalist Music Publishing Company (BMI), used with the permission of the composer, undated.

5. General Discography¹⁵

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CHATHAM, Rhys and PALESTINE, *Charlemagne, Youuu + Mee = Weeee*, Sub Rosa, SR367, 3CD, 2014.

CONRAD, Tony, and FAUST, *Outside the Dream Syndicate*, Caroline, C 1501, 1973.

OLIVEROS, Pauline, *I of IV* (1967) on Steve Reich, Richard Maxfield, and Pauline Oliveros, *New Sounds in Electronic Music*, Odyssey Records, Odyssey 32 16 0160, 1967.

PALESTINE, Charlemagne, JENNINGS, Terry, CONRAD, Tony, FELDMAN, Robert CHATHAM, Rhys, *Sharing A Golden Sonority (Golden 4)*, Alga Marghen, plana-P 28NMN.068, 2008.

PALESTINE, Charlemagne, *Schlingen Blängen*, New World Records, 80578, 1999.

POSS, Robert, *Distortion is Truth*, Trace Elements Records, TE-1022002CD1, 2002.

¹⁵ Note: I have provided a separate discography for Chatham's works to provide the fullest possible account of all recordings of Chatham music, including rereleases (directly following this discography).

PRAN NATH, Pandit, *Ragas*, Shandar, SR 10007, 1971.

RADIGUE, Éliane, *Adnos I-III*, Table of the Elements Records, CS 55, SWC-CD-55, 2002.

-----, *Opus 17*, Alga Margen, plana-R alga045, 2003.

-----, *Transmorem – Transmortem* (1973), Important Records, IMPREC337, 2011.

RAMONES, *Leave Home*, California: Rhino Records, R2 74307, 1977.

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REICH, Steve, MAXFIELD, Richard, OLIVEROS, Pauline, *New Sounds in Electronic Music*, Odyssey Records, Odyssey 32 16 0160, 1967.

RILEY, Terry, *A Rainbow in Curved Air*, Columbia Masterworks, MS 7315, 1969.

RUSSELL, Arthur, *First Thought, Best Thought*, Audika, AU-1005-2, 2006.

SUBOTNICK, Morton, *Silver Apples of the Moon*, Nonesuch, H-71174, 1967.

TEENAGE JESUS AND THE JERKS, 'Orphans', Migraine Records, CC-333, 1978.

THE PRIMITIVES, 'The Ostrich', Pickwick Records, PC-9001, 1964.

THE VELVET UNDERGROUND, *The Velvet Underground*, Verve Records, VLP 9184, 1967.

VARIOUS ARTISTS, *Century XXI: USA 2 - Electric / Acoustic*, New Tone Records, NT 6731, 1994.

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6. Chatham Discography

CHATHAM, Rhys, *A Crimson Grail*, Table of The Elements, TOE-CD-106, 2006.

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-----, *An Angel Moves Too Fast to See*, Table of The Elements, TOE-CD-802/TOE-LP-802, 2006.

-----, *An Angel Moves Too Fast to See: Selected Works 1971-1989*, Table of The Elements, SWC-CD-57, 2002.

-----, *A Rhys Chatham Compendium*, Table of The Elements, TOE-CD-56, 2002.

-----, *Die Donnergötter (The Thundergods)*, Homestead Records HMS 120-1, 1987. Also, released and released under the same title on various formats: LP, Homestead Records, HMS 120-1, 1987; CD, Dossier, DCD 9002, 1987; LP, Dossier, St 7538, 1987; CD, Homestead Records, HMS 120-2, 1989; Cassette, Homestead Records, HMS 120-4, 1989; CD,

¹⁶ Also available via Ubuweb: http://www.ubu.com/sound/tellus_1.html. Accessed 13 November 2014.

¹⁷ Note: titles of Chatham's music that appear on compilations are not italicised, instead as per the convention used elsewhere in this thesis, the title of an individual tracks are given using a capitalised first letter and the title of the album is italicised. However, when these works are discussed elsewhere they are italicised, unless they are parts of a larger work; for example, *Guitar Trio*, and Adagio (from *An Angel Moves Too Fast to See*).

Table of The Elements, TOE-CD-801, 2006; LP, Table of The Elements, TOE-LP-801, 2006; LP, Table of The Elements, LP801, 2006.

- , 'Drastic Classicism for Electric Instruments' (1981), on Various Artists, *New Music from Antarctica Volume 1*, Antarctica Records, ARC-6201, 9 minutes, 1982.¹⁸
- , *Echo Solo* (1989), Azoth Schallplatten Gesellschaft, 208 9824, 2003.
- , 'Excerpt From "64 Short Stories"' on Various Artists, *Just Another Asshole #5*, Just Another Asshole, #5, 1981.
- , *Factor X*, Moers Music, momu 02008, 1983.
- , *Harmonie du soir*, Northern Spy Records, NSCD 048, 2013.
- , 'Guitar Trio (Live in New York, May 1979)', on Various Artists, *Tellus # 1, The Audio Cassette Magazine*, a subscription only, bimonthly publication, 1983.
- , *Guitar Trio Is My Life!*, Table of The Elements Records, TOD-CD-813, 2008.
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- , *Pythagorean Dream*, Foom Records, FM007, 2016.
- , *The Bern Project*, Hinterzimmer Records, HINT 08, 2010.
- , *Three Aspects of the Name*, Table of The Elements Records, Tb 65, 2003.
- , *Two Gongs*, Table of The Elements Records, 73 Ta, 2006.

¹⁸ Also, known as *Drastic Classicism*. See *Drastic Classicism* entry in 'Chatham's catalogue of Music' in Appendices for full details of recordings of this music.

7. Online Resources for Chatham's Music

A. Live Performances¹⁹

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¹⁹ A partial selection of historically and musically significant performances of Chatham's music. Note: dates of performances have been added where possible, with compositions and performances by the composer unless otherwise stated.

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and Video (full performance),
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performance), in two parts:
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Drastic Classicism, live at The Kitchen on 17 April 1981, Audio and Video (full
performance), <https://vimeo.com/76535124>. Accessed 10 November
2015.

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<https://www.youtube.com/watch?v=q2pQJwv3-28>,
<https://www.youtube.com/watch?v=EGZGTVfDFK0>,
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Guitar Trio (part 1), live at Rådssalen, Trondheim folkebibliotek, Norway on 22
April 2015, Audio and Video (full performance),

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Guitar Trio (part 2), live at Rådssalen, Trondheim folkebibliotek, Norway on 22 April 2015, Audio and Video (full performance),
<https://www.youtube.com/watch?v=FYAMrXHwIzw>. Accessed 10 November 2015.

Guitar Trio, live recording from New York City in May 1979, Rhys Chatham with Glenn Branca, Nina Canal, Wharton Tiers, Audio,
http://www.ubu.com/sound/tellus_1.html. Accessed 13 September 2015.²⁰

Guitar Trio, performed by Justine Frischmann (electric guitar), Sonic Boom (electric guitar), Robert Poss (electric guitar), Susan Stenger (electric bass), Robert Grey (drums), live at Purcell Room, London, 6 November 1996, Audio (full performance)
https://www.youtube.com/watch?v=WR7mNSRSyew&index=52&list=PLuPD_yfTUB5UGMHV7PcTw3qKLE-ta_qaW. Accessed 10 November 2015.

G100, live in Williamsport, Pennsylvania on 23 May 2008, Audio and Video (full performance), in two parts: https://www.youtube.com/watch?v=3Qxr-_OUzLk & <https://www.youtube.com/watch?v=9Aa9T73Y0bg>. Accessed 10 November 2015.

G3 (part 1), live in Montreal on 30 January 2007, Audio and Video (full performance),
https://www.youtube.com/watch?v=B4jKToczsy4&list=PLuPD_yfTUB5UGMHV7PcTw3qKLE-ta_qaW&index=150. Accessed 10 November 2015.

G3 (part 2), live in Montreal on 30 January 2007, Audio and Video (full performance), <https://www.youtube.com/watch?v=CUeX3fvSX-I>. Accessed 10 November 2015.

Harmonie du soir, live at Palais de Tokyo on 14 November 2012, Audio and Video (excerpt),

²⁰ Also available on *Tellus Audio Cassette Magazine*, Number 1, 1983.

https://www.youtube.com/watch?v=fhRaIO_nbvA&list=PLuPD_yfTUB5UGMHV7PcTw3qKLE-ta_qaW&index=57. Accessed 10 November 2015.

Harmonie du soir, live at Palais de Tokyo on 14 November 2012, Audio and Video (excerpt),

https://www.youtube.com/watch?v=WrhISqvWR5c&list=PLuPD_yfTUB5UGMHV7PcTw3qKLE-ta_qaW&index=63. Accessed 10 November 2015.

Improvised trio performance, Chatham (flutes, guitar, and trumpet) with Rune Kielsgaard (drums), and Jeppe Kovbakke (bass), at Click Festival, Elsinore, Denmark, 16 May 2015, Audio and Video, <https://vimeo.com/132574812>. Accessed 27 November 2015.

Oneida and Rhys Chatham, live at the 'Ecstatic Music Festival' at Merkin Concert Hall, New York on 17 March 2012, Audio, <http://www.wqxr.org/#!/story/193001-listen-oneida-and-rhys-chatham-live-merkin-concert-hall/>. Accessed 10 November 2015.

'Rhys Chatham's Essentialist live at Table of the Elements' Bohrium Festival', Atlanta, Georgia on 9 March 2006, Audio and Video (excerpts), Part 1-3: <https://www.youtube.com/watch?v=662LdMJHLJA>, <https://www.youtube.com/watch?v=06csQ0y6rgE>, <https://www.youtube.com/watch?v=ii6TykZ713U>. Accessed 10 November 2015.

'Solo performance' (for flutes, guitar, phrase samplers, and trumpet), Live performance in Berlin, 25 June 2015, Audio and Video (full performance), <https://vimeo.com/133332179>. Accessed 27 November 2015.

'Solo performance' (for justly-tuned guitar, phrase samplers, and trumpet), Live TV performance in Copenhagen, Denmark on 2 March 2012, Audio and Video (full performance), https://www.youtube.com/watch?v=SO-TwCDKun0&index=135&list=PLuPD_yfTUB5UGMHV7PcTw3qKLE-ta_qaW. Accessed 10 November 2015.

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<https://soundcloud.com/rhys-chatham/live-solo-concert-at-foyer-7-february-2015-eugen-belgium>. Accessed 10 November 2015.

The Out of Tune Guitar, Rhys Chatham & Boyd's Elektro Gitarren Orchester live at Klub Katarakt, Hamburg on 20 January 2011, Audio and Video (full performance), <https://www.youtube.com/watch?v=4biZfzZVIK4>. Accessed 10 November 2015.

The Tortoise, his Dreams and Journeys (by La Monte Young), interpreted by Chatham using overtone singing, phrase sampling, and trumpet, live at Souffle Continu, Paris on 19 February 2015, Audio and Video (excerpt), https://www.youtube.com/watch?v=GQ_26kxP6Do. Accessed 10 November 2015.

B. Other Recordings

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Guitar Trio, Band of Susans, <https://www.youtube.com/watch?v=CWEywxlgKLs>. Accessed 10 November 2015.

Guitar Ring, (1982), Studio Recording,
https://www.youtube.com/watch?v=_RM1bc6Cy78. Accessed 10 November 2015.

Solo for Electric Guitar, Audio recording from 1981,
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The Out of Tune Guitar No. 2 (1982), Studio Recording,
<https://www.youtube.com/watch?v=9b6LM7Kow7s>. Accessed 10 November 2015.

²¹ A 'solo' version of *Guitar Trio* recording credited to Chatham (and sounding very much like him) dated to 1981.

Two Gongs, 1971, <https://soundcloud.com/rhys-chatham/twogongs>. Accessed 10 November 2015.

C. Video Interviews

ELLIS, Andrew, 'In Conversation: Andrew Ellis and Rhys Chatham - Liverpool Biennial 2012', audio and video, 2012,
https://www.youtube.com/watch?v=NUKJJ6CSNTY&list=PLuPD_yfTUB5UGMHV7PcTw3qKLE-ta_qaW&index=11. Accessed 10 November 2015.

SZABO, Julia, 'EAR Magazine Interview with Rhys Chatham', audio, 1989 (in four parts):
https://www.youtube.com/watch?v=xJBFKpScNY&list=PLuPD_yfTUB5UGMHV7PcTw3qKLE-ta_qaW&index=28,
https://www.youtube.com/watch?v=m4vM4rONoYg&list=PLuPD_yfTUB5UGMHV7PcTw3qKLE-ta_qaW&index=48,
https://www.youtube.com/watch?v=Sg5Ofk_rmME,
<https://www.youtube.com/watch?v=GzArCsM8Apk>. Accessed 10 November 2015. An edited version of this interview is available also:
SZABO, Julia, 'Rhys Chatham: Rhys's Pieces', *EAR Magazine*, Volume 13, Number 10, February 1989, pp. 36-37.

Appendices

Appendix A - Catalogue of Chatham's Music

This is an expanded, revised, and updated list of Chatham's music catalogue that combines a list of his works and his discography to also include: debut performance dates (where possible), music omitted from the original catalogue compiled by the composer, and details of his studio recordings (where applicable).²²

Electronic Music Study No. 1 (1968) for audiotape.

Duration: 9 minutes.

First Performance: NYU School of the Arts, New York, undated.

Electronic Music Study No. 2 (1968) for audiotape.

Duration: 20 minutes.

First Performance: Broadcast on WBAI.FM, New York, undated.

Facticity (1969) for two flutes, two keyboards, and tape.

A commissioned work for the "Music Under the Stars" Washington Square Park Summer Concert Series.

Duration: 50 minutes.

First performance: Washington Square Park, New York, undated.

Musicians: Rhys Chatham, Edmund Neiman, Tom Manoff, Manuel Vallejo.

Greenline Poem (1970) for audiotape.

Duration: 11 minutes.

First Performance: The Kitchen, Mercer Street, New York, 1 November 1971.

²² Note: from the *Hard Edge* (1999) album entry onward, I have listed Chatham's albums of improvisatory trumpet and guitar based music collectively, rather than as individual entries, for ease of reading. These track listings provide: track number, track title (non-italicised), and length of recording. However, the ensemble works for electric guitar and relevant fully scored works are given separate, detailed entries to reflect the focus of this thesis. Also, I have not attempted to include a list of recordings or compositions where Chatham appears as a guest musician. For the original list, see Chatham, 'Music Catalog - List of compositions by Rhys Chatham', 2005, <http://www.rhyschatham.net/nintiesRCwebsite/Catalog.html>. Accessed 11 November 2015.

Dr. Drone In Concert (1971) for audiotape and video image.

Duration: 70 minutes.

First performance: The Kitchen, Mercer Street, New York, 25 May 1972.

Text: Tony Conrad.

Video: Shridar Bapat.

Two Gongs (1971) for two large Chinese gongs.

Duration: 64 minutes.

First performance: The Kitchen, Mercer Street, New York, 28 February 1971.

Musicians: Rhys Chatham, Yoshi Wada.

Recordings: recorded live at Experimental Intermedia Foundation, New York, 15 December 1989, included on the albums, *Two Gongs* (2006),²³ and *An Angel Moves Too Fast To See: Selected Works* (2003).²⁴

Harpsichord (1972) for harpsichord in just intonation.

Duration: 3 minutes.

First performance: Experimental Intermedia Foundation (EIF), Centre Street, Manhattan, New York, undated.

Musician: Rhys Chatham.

Still Sound in Motion (1973) for two trombones.

Duration: 30 minutes.

First Performance: Acme Productions, SoHo, New York, undated.

Musicians: Garrett List, unknown second player.

Clap! (1974) for three tenor saxophones and tape.

Duration: 10 minutes.

First Performance: Experimental Intermedia Foundation, Centre Street, Manhattan, New York, undated.

Musicians: Rhys Chatham, Peter Gordon, Keshavan Maslak.

The Black Star Pilgrimage (1975) for amplified voice.

Duration: 70 minutes.

First Performance: The Kitchen, Wooster Street, New York, undated.

Musician: Rhys Chatham.

²³ Chatham, *Two Gongs*, Table of The Elements Records, 73 Ta, 2006.

²⁴ Chatham, *An Angel Moves Too Fast to See: Selected Works 1971-1989*, Table of The Elements, SWC-CD-57, 2002.

Seven Fairy Tales (1976), theatre piece for six performers and reptile.²⁵

Duration: 20 minutes.

First Performance: Experimental Intermedia Foundation, Centre Street, Manhattan, New York, undated.

Text: Melvyn Frieleiker.

Reader: Rhys Chatham.

Musicians: Scott Johnson, Jill Kroesen, Dick Miller, Pat O'Riley, Eric Richards.

Reptile: Harry.

Four Words (1975) for four performers.

Duration: 8 minutes.

First Performance: St. Mark's Church - East Village, New York, undated.

Musicians: Beth Anderson, Rhys Chatham, Michael Cooper and Jackson Mac Low.

Ear Ringing (1976) for sine wave generator and psychoacoustic phenomenon.

Duration: 90 minutes.

First Performance: Artists' Space, New York, undated.

Musician: Rhys Chatham.

Tone Death (1977) for tenor saxophone, two electric guitars, and drums.

Duration: 35 minutes.

First Performance: Franklin Furnace, New York, winter of 1977.

Musicians: Robert Appleton, Nina Canal, Rhys Chatham, and Peter Gordon.

Guitar Trio (1977) for three electric, guitars, electric bass, and drums

with: *Pictures For Music* (1980), 35mm projection by Robert Longo.

Duration:

First version: *Guitar Trio* (1977-79) and as *G3* (2006-2015): 25 minutes,

Second version with slides by Robert Longo (1980-82): 14 minutes,

Third version, (1982-2005): 8 minutes.

²⁵ The reptile (named 'Harry') was a visual component of this work, and did not have a role in shaping the music directly.

First Performance: Chatham states it was an undated loft performance in New York in 1978/79.²⁶

Musicians: Glenn Branca, Nina Canal, Rhys Chatham, and Wharton Tiers.

Recording: recorded at Battery Sound, New York in June 1981 (mixed by Peter Gordon in Spring 1982), and included on the albums *Die Donnergötter* (1987),²⁷ and *An Angel Moves Too Fast To See: Selected Works* (2003).²⁸

See also, *Cadenza* (1981), *G100* (2008), *G3* (2007), *Is There Life After Guitar Trio?* (2009).

The Out of Tune Guitar, No. 1 (1978) for three electric guitars, electric bass, and drums.

Duration: 25 minutes.

First Performance: Tier 3, SoHo, New York, 6 December 1979.

Musicians: Jules Baptiste, Rhys Chatham, Robert Longo, and Wharton Tiers.

See also: *The Out of Tune Guitar No. 2* (1983), and *The Out of Tune Guitar (\$100 Guitar Version)* (2013).

Vertige (1979), theatre piece for electric guitar and dancer.

Duration: 35 minutes.

First Performance: Festival d'automne à Paris, France, 1979.

Musician: Rhys Chatham.

Choreographer and dancer: Karole Armitage.

Lighting & costumes: Charles Atlas.

Acoustic Terror (1979) for electric guitar and drums.

Duration: 12 minutes.

First Performance: The American Center in Paris, undated.

Musicians: Rhys Chatham and David Linton.

Wild Romance (1980) for four electric guitars, electric bass, and drums.

Duration: 15 minutes.

First Performance: The Kitchen Center, New York, undated.

²⁶ See Chapter Five of this thesis.

²⁷ Chatham, *Die Donnergötter (The Thundergods)*, Homestead Records HMS 120-1, 1987.

²⁸ Chatham, *An Angel Moves Too Fast to See: Selected Works 1971-1989*, Table of The Elements, SWC-CD-57, 2002.

Musicians: Craig Bromberg, Michael Brown, Rhys Chatham, Joe Dizney, David Linton, and Ned Sublette.

64 Short Stories (1981) for four electric guitars, electric bass, drums, and 35 mm slide projection.²⁹

Duration: 20 minutes.

First performance: The Kitchen Center, New York, 17 April 1981.

Musicians: Michael Brown, Rhys Chatham, Joe Dizney, and David Linton.

Recording: 1981, as *Excerpt From "64 Short Stories"*.³⁰

Drastic Classicism (1981) for four electric guitars, and drums.³¹

Duration: 16 minutes.

First Performance: Dance Theater Workshop, New York, 10 February 1981.

First version: Theatre piece with dancers.

Second version: Concert version without dancers.

Musicians: Michael Brown, Nina Canal, Rhys Chatham, Scott Johnson, David Linton, and Ned Sublette.

Recordings: recorded at Rite Track, New York in September 1981, mixed by Peter Gordon in 1982. Released as *Drastic Classicism for Electric Instruments*,³² and *Drastic Classicism* on the albums *Die Donnergötter* (1987/2006)³³ and *An Angel Moves Too Fast To See: Selected Works* (2003).³⁴ See, *Drastic Classicism Revisited* also (2012).

Cadenza (1981) for four electric guitars, and drums.

Duration: 10 minutes.

First performance: Dance Theater Workshop, New York, 1981.

Musicians: Nina Canal, Rhys Chatham, Scott Johnson, and David Linton.

²⁹ Titled *32 Short Stories* in the Kitchen program notes of 17 April 1981.

³⁰ Included on Various Artists, *Just Another Asshole #5*, Just Another Asshole, #5, 1981.

³¹ Although Chatham lists 'an electric bass' part for this work in his 'Music Catalog', it does not use a bass part (Chatham, 'Music Catalog - List of compositions by Rhys Chatham', 2005). For example, the studio recordings from 1981 and 2012, and the live performance at The Kitchen on 17 April 1981, do not feature a bass guitar. See discussion of tonal centres in *Drastic Classicism* analysis in Chapter Six of this thesis also.

³² A nine-minute version was included on Various Artists, *New Music from Antarctica Volume 1*, Antarctica Records, ARC-6201, 9 minutes, 1982.

³³ Included on the CD versions of Chatham, *Die Donnergötter*, Dossier, DCD 9002, 1987, and *Table of The Elements*, TOE-CD-801, 2006.

³⁴ Chatham, *An Angel Moves Too Fast to See: Selected Works 1971-1989*, Table of The Elements, SWC-CD-57, 2002.

Recording: Radio City Music Hall Recording Studios, New York, spring 1983.
Released on *Factor X* (1983).³⁵

For Brass (1982) for four trumpets, three trombones, tuba, and percussion.³⁶

Duration: 17 minutes.

Commissioned by the Groupe de Recherche chorégraphique de l'Opéra de Paris.

First Performance: Chateaufallon Festival, France, undated.

Musicians: Sinclair Acey, Olu Dara, Anton Fier, Frank Gordon, George Lewis, James Staley, Bob Stewart, and Ron Tooley.

Recording: Radio City Music Hall Recording Studios, New York, spring 1983.
Released on *Factor X* (1983).³⁷

The Feast (1982) for electric guitar, dancer, and tape.

Duration: 50 minutes.

First performance: P.S. 122, New York, undated.

Choreography and dancer: Lisa Fox.

Musician: Rhys Chatham.

Guitar Ring (1982) for four electric guitars, and drums.

Duration: 15 minutes.

First performance: Moers Music Festival, West Germany, undated.

Musicians: Rhys Chatham, Karen Haglof, James Lo, Craig Kafton, and Susan Springfield.

Recording: recorded at Radio City Music Hall Recording Studios, New York, spring 1983. Released on *Factor X* (1983).³⁸

The Out of Tune Guitar No. 2 (1983) for four guitars, and drums.

Duration: 5 minutes.

First performance: Moers Music Festival, West Germany, undated.

Musicians: Rhys Chatham, Karen Haglof, Craig Kafton, Susan Springfield, and James Lo.

³⁵ Chatham, *Factor X*, Moers Music, momu 02008, 1983.

³⁶ Also known as *Massacre on MacDougal Street*.

³⁷ Chatham, *Factor X*, 1983.

³⁸ *Ibid.*

Recording: Radio City Music Hall Recording Studios, New York, spring 1983.
Released on *Factor X* (1983).³⁹

Lecture (1983) for reader, two percussionists, and electronics (version 1).

Duration: 60 minutes.

First Performance: The Mudd Club, New York, undated.

Text: Rhys Chatham.

Reader: Rhys Chatham.

Percussionists: James Lo and David Wonsey.

Electronics: Fast Forward.

Lecture (1983) for reader and electronics (version 2).

Duration: 60 minutes.

First Performance: Roulette, New York, undated.

Text: Rhys Chatham.

Reader: Rhys Chatham.

Electronics: Nicolas Collins.

Secular Music for Battery and Brass (1983) for four trumpets, two trombones, and percussion.

Duration: 80 minutes (version 1).

15 minutes (version 2).

First performance: Art on the Beach, New York, undated.

Musicians: Rik Albani, Pamela Fleming, Jonathan Kane, George Lewis, James Lo, Butch Morris, James O'Connor, David Wonsey, and Peter Zummo.

Die Donnergötter (1984-86) for six electric guitars, electric bass, and drums.

Duration: 21 minutes.

First performance: 8 B.C., New York, undated.

Musicians: Bill Brovold, Rhys Chatham, Karen Haglof, Tim Holmes, Conrad Kinard, J.P. "Thunderbolt" Patterson, Tom Payne, Robert Poss, Mitch Salmon, and Tim Schellenbaum.

Recording: BC Studios, NYC April 1986. Released on the albums *Die Donnergötter* (1987/1989/2006),⁴⁰ and *An Angel Moves Too Fast To See: Selected Works* (2003).⁴¹

³⁹ Ibid.

Chamber Work (1984) for four trumpets, and percussion.

A work commissioned by Joseph Nechvatal.

Duration: 14 minutes.

First performance: Institute of Contemporary Art, Boston, undated.

Musicians: Rhys Chatham (conductor), Pamela Fleming, Steven Haynes, Ben Neill, James O'Connor, and David Wonsey.

Journey I-III (1984) for four trumpets, and percussion.

Duration: 15 minutes.

First performance: S.E.M. Ensemble at the Whitney Museum of American Art at Philip Morris, undated.

Musicians: Rhys Chatham, Pamela Fleming, Stephen Haynes, James O'Connor, and David Wonsey.

Waterloo (1985) for solo percussionist, two flugelhorns, and dancer.

Commissioned by Elaine and Werner Dannheisser.

Duration: 15 minutes.

First performance: The Dannheisser Foundation, NYC, undated.

Choreography: Yves Musard.

Dancer: Yves Musard.

Musicians: Rhys Chatham, James O'Connor, and David Wonsey.

Rhys' Pieces (1985) for four trumpets, and percussion.

Duration: 13 minutes.

First performance: The Performance Gallery, San Francisco, undated.

Musicians: Rhys Chatham (conductor), Pamela Fleming, Steven Haynes, Ben Neill, James O'Connor, and David Wonsey.

XS (1985-86) for three soprano singers, four trumpets, six electric guitars, electric bass, drums, 35 mm slide projection, and dancers.

Duration: 90 minutes.

First Performance: The Boston Shakespeare Theater, undated.

⁴⁰ As Chatham, *Die Donnergötter*, Dossier, DCD 9002, 1987. Also, released and released under the same title on various formats: LP, Homestead Records, HMS 120-1, 1987; LP, Dossier, St 7538, 1987; CD, Homestead Records, HMS 120-2, 1989; Cassette, Homestead Records, HMS 120-4, 1989; CD, Table of The Elements, TOE-CD-801, 2006; LP, Table of The Elements, TOE-LP-801, 2006; LP, Table of The Elements, LP801, 2006.

⁴¹ Chatham, *An Angel Moves Too Fast to See: Selected Works 1971-1989*, Table of The Elements, SWC-CD-57, 2002.

Choreography: Yves Musard.

35 mm slides: Joseph Nechvatal.

Musicians: Peggy Ackerman, Bill Brovold, Rhys Chatham (conductor), Pamela Fleming, Karen Haglof, Steven Haynes, Conrad Kinard, Ben Neill, J.P.

“Thunderbolt” Patterson, Robert Poss, James O'Connor, Mitch Salmon, Tim Schellenbaum, Jane Smith, Elly Spiegel, and David Wonsey.

The Last World (1985) for soprano voice and tape.

A work commissioned by Joan La Barbara.

Duration: 15 minutes.

First performance: Symphony space, New York, undated.

Text: Stephen Madoff.

Voice: Joan La Barbara.

Fantasia (1985) for pianoforte.

Commissioned by Kurt Royston.

Duration: 12 minutes.

First Performance: The Whitney Museum of Art at Madison Avenue, New York, undated.

Musician: F. Erwin Smith.

Waterloo No. 2 (1986) for solo percussionist, two trumpets, two trombones, keyboard, and (optional) piccolo.

Commissioned by the S.E.M. Ensemble.

Duration: 8 minutes.

First performance: Whitney Museum of American Art, New York, undated.

Musicians: Rob Bethea, Petr Kotik, Pat McCarty, Ben Neill, Gwendolyn Toth, and Don Yallech (featured soloist).

Recording: Fun City, New York in May 1986. Released on the albums *Die Donnergötter* (1987),⁴² and *An Angel Moves Too Fast To See: Selected Works* (2003).⁴³

Merci Chopin (1986) for four electric guitars, electric bass, and drums.

Duration: 11 minutes.

⁴² Chatham, *Die Donnergötter (The Thundergods)*, HMS 120-1, 1987.

⁴³ Chatham, *An Angel Moves Too Fast to See: Selected Works 1971-1989*, Table of The Elements, SWC-CD-57, 2002.

First performance: 8 B.C., New York, undated.

Musicians: Ernie Brooks, Karen Haglof, J.P. "Thunderbolt" Patterson, Robert Poss, Mitch Salmon, and Evans Wohlforth.

Untitled (1986) for four electric guitars, electric bass, and drums.

Duration: 15 minutes.

First performance: 8 B.C., New York, undated.

Musicians: Ernie Brooks, Karen Haglof, J.P. "Thunderbolt" Patterson, Robert Poss, Mitch Salmon, and Evans Wohlforth.

Recording: undated (around 1986-87) on *Various Artists*, *Impala Eardrums: A Radium Sampler*.⁴⁴

Minimal Criminal (1987) for trumpet, electric bass, drums, and tape.

Duration: 70 minutes.

First performance: Real Art Ways; Hartford, CT, undated.

Musicians: Ernest Brooks, Rhys Chatham, and Jonathan Kane.

Hypothermia (1987) theatre piece for reader, trumpet, and electric bass. Made in collaboration with Leopold Zappler.

Duration: 40 minutes.

First performance, unknown, undated.

Text: Leopold Zappler.

Reader: Leopold Zappler.

Musicians: Ernest Brooks, Rhys Chatham.

Manifeste (1988) for solo trumpet and live electronics.

A commissioned work for Alain Sinturel.

Duration: 70 minutes.

First Performance: Traquan'Art - Montreal, Canada, undated.

Musician: Rhys Chatham.

The Out of Tune Guitar No. 3 (1988) for four electric guitars, and electric bass.

A commissioned work for Serious Fun!

Duration: 5 minutes.

First Performance: Alice Tully Hall at Lincoln Center, undated.

⁴⁴ Various Artists, *Impala Eardrums: A Radium Sampler*, Radium US, TOE 812CD, 2008.

Musicians: Karen Haglof, Jonathan Kane, Robert Poss, Mitch Salmen, and Susan Stenger.

Minerva (1988) for six electric guitars, electric bass, drums.

A commissioned work for the Serious Fun! Festival at Lincoln Center.

Duration: 20 minutes.

First performance: Alice Tully Hall, undated.

Musicians: Karen Haglof, Tim Hamilton, Jonathan Kane, Robert Poss, Mitch Salmen, Susan Stenger, and Evans Wohlforth.

Minerva (1988) for two Eb trumpets and percussion.

A commissioned work for the Serious Fun! Festival at Lincoln Center.

Duration: 5 minutes.

First performance: Alice Tully Hall, undated.

Musicians: Jonathan Kane, Ben Neill, and James O'Connor.

My House (1988) for dancer and tape.

Duration: 10 minutes.

First performance: P.S. 122, New York, undated.

Choreography and dancer: Dennis O'Connor.

Trumpet: Rhys Chatham.

Battle of the Nile (1988-89) theatre piece for two performers, three dancers, live electronic image, and sound.

Made possible by a grant from the National Endowment on the Arts.

First Performance: Katherine Cornell Theater - Buffalo, NY, undated.

Concept and research: Tony Conrad.

Text: Tony Conrad and Rhys Chatham.

Music: Rhys Chatham.

35 mm projection and electronic image: Tony Conrad.

Choreography: Isabelle Marteau.

Dancers: Eric Barsness, Isabelle Marteau, Noëlle Simonet.

Lighting: Stan Pressner.

Musician: Rhys Chatham.

Echo Solo (1989) for amplified pianoforte or midi keyboard.

Commissioned by the Robert Kovich Dance Company.

Duration: 40 minutes.

First performance: St. Mark's Church, undated.

Choreography: Robert Kovich.

Dancers: The Robert Kovich Dance Company.

Musician: Rhys Chatham.

Recording: released as Rhys Chatham, *Echo Solo*.⁴⁵

Zephyr Chorus (1989) for tape and text.

Commissioned by the Robert Kovich Dance Company.

Duration: 20 minutes.

First performance: St. Mark's Church, undated.

Choreography: Robert Kovich.

Dancers: The Robert Kovich Dance Company.

Reader: Rhys Chatham.

Journey to the End of the Night (1989) for six electric guitars, electric bass, and drums.

First performance: Musique Action 90 - Vandoeuvre, France.

Musicians: Claude Alvarez-Péreyre, Ernie Brooks, Kent Condon, Jonathan Kane, Jean-François Puvros, Claude Samard, and Duncan Youngerman.

An Angel Moves Too Fast to See (1989) for one hundred electric guitars, electric bass, and drums.

A work commissioned by l'aéronef and the city of Lille, France.

Duration: 70 minutes.

First performance: L'aéronef, 23 November 1989.

Musicians: Claude Alvarez-Péreyre, Ernie Brooks, Rhys Chatham (conductor), Kent Condon, Jonathan Kane, Jean-François Puvros, Philippe Rey, Claude Samard, and Duncan Youngerman and ninety-three electric guitarists from the region of Lille.

Recordings: the Adagio (titled Movement 5)⁴⁶ of *An Angel Moves Too Fast to See* was included on Various Artists, *Century XXI: USA 2 - Electric / Acoustic*.⁴⁷

The full piece was recorded live in Milan (on 16 March 1995) and *Palermo* (28

⁴⁵ Chatham, *Echo Solo*, Azoth Schallplatten Gesellschaft, 208 9824, 2003.

⁴⁶ Recorded live between 1989-1990.

⁴⁷ Various Artists, *Century XXI: USA 2 - Electric / Acoustic*, New Tone Records, NT 6731, 1994.

June 1995)⁴⁸ and included on the albums *An Angel Moves Too Fast To See: Selected Works* (2003),⁴⁹ and *An Angel Moves Too Fast to See* (2006).⁵⁰

Souvenirs D'enfance (1990) for two flutes.

Duration: 6 minutes.

First Performances: The Kitchen, undated.

Musicians: Petr Kotik and an unknown musician.

The Heart Cries With Many Voices (1990) for six electric guitars, electric bass, drums, and two trumpets.

Commissioned by the Brooklyn Academy of Music NEXT WAVE Festival and Harvestworks, Inc./Studio PASS.

First performance: BAM Carey Playhouse, undated.

Duration: 60 minutes.

Musicians: Rhys Chatham (conductor), Karen Haglof, Mary Hastings, Jonathan Kane, Mark Lonergan, Ben Neill, Robert Poss, Mitch Salmon, Ron Spitzer, Susan Stenger, and Evans Wohlforth.

The Heart Cries With Many Voices (1990) for chorus.

Commissioned by the Brooklyn Academy of Music NEXT WAVE Festival and Harvestworks, Inc./Studio PASS. Made in collaboration with Leopold Zappler.

First performance: BAM Carey Playhouse, undated.

Duration: 10 minutes.

Text: Leopold Zappler.

Vocal direction by Gwendolyn Toth.

Warehouse of Saints; Songs for Spies (1991) for one hundred electric guitars, electric bass, and drums.

Commissioned by Musica Festival Internationale des musiques d'aujourd'hui - Strasbourg, France.

First performed: Entrepôts Kroenenbourg – Strasbourg, undated.

Duration: 75 minutes.

Musicians: Claude Alvarez-Péreyre, Ernie Brooks, Rhys Chatham, Kent

⁴⁸ Only the movement No Trees Left: Every Blade of Grass is Screaming was recorded in Palermo.

⁴⁹ Chatham, *An Angel Moves Too Fast to See: Selected Works 1971-1989*, Table of The Elements, SWC-CD-57, 2002.

⁵⁰ Chatham, *An Angel Moves Too Fast to See*, Radium, TOE-CD-802/TOE-LP-802, 2006.

Condon, Jonathan Kane, Jean-François Pauvros, Philippe Rey, Duncan Youngerman and ninety-three electric guitarists from the region of Strasbourg.

Quatuor a Cordes, No. 1 (1991).

Duration: 10 minutes.

Unreleased.

Les Vespers De La Vierge (1992) for chorus, two trumpets, two saxophones, two trombones, tuba, and drums.

Arrangement of a piece by Monteverdi. Commissioned by the Lyon Opera Ballet for a dance by Ralph Lemon.

Duration: 35 minutes.

First performed: Transbordeur - Lyon, France, undated.

Musicians: The Sine Nomine Singers conducted by Harry Saltzman; Jean-Pierre Arnoux, Jon Gibson, Jonathan Kane, Ben Neill, Lenny Pickett, Peter Zummo, unknown trumpet player, and unknown tuba player.

Music to Tauromaquia (1992-93) for one hundred electric guitars, electric bass, and drums.

Commissioned by the Orbe Théâtre, Paris.

Duration: 90 minutes.

For a theatre work untitled *TAUROMAQUIA* by Jean-Philippe Guerlais.⁵¹

Neon (1993) trumpet and electronics.

Collaboration with Martin Wheeler.

Duration: 6'33".

Recording: released on Rhys Chatham, *Neon*, NTone Records, NTONE CDS15, 1996.

Ramatek (1993) trumpet and electronics.

Collaboration with Martin Wheeler.

Duration: 5'52".

Recording: on Chatham, *Neon*, 1996.

Godbox (1993) trumpet and electronics.

Collaboration with Martin Wheeler.

⁵¹ This site-specific composition was commissioned for a bull-ring; however, it was not performed as the funding for the concert fell through.

Duration: c. 2'30".

Unreleased recording.

Symphony No. 4 (1994/95) for full orchestra.

Commissioned by Le Grand Théâtre de Genève.

Duration: 35 minutes.

First performance: Le Grand Théâtre de Genève, undated.

Conductor: Ermanno Florio.

Musicians: Orchestre de la Suisse Romande.

Hornithology (1995) trumpet and electronics.

Collaboration with Martin Wheeler.

Duration: 4'28".

Recording: released on Chatham, *Neon*, 1996.

Charm (1995) trumpet and electronics.

Collaboration with Martin Wheeler.

Duration: 5'21".

Recording: released on Chatham, *Neon*, 1996.

Tour a Tour (1995) for trumpet and midi electronics (tape piece).

Commissioned by Association Kim Kohn for a dance by Isabelle Marteau.

Duration: 75 minutes.

First performed: Gymnase Maurice Baquet - Bagnolet, France, undated.

Untitled (1996) for amplified trumpet, electric guitar, and interactive midi-electronics.

Duration: 30 minutes.

First Performance: Maison de la Musique - Nanterre, FRANCE, undated.

Altesse (1996) trumpet and electronics.

Collaboration with Martin Wheeler.

Recording: on Various Artists, *Macro Dub Infection Volume 2*, Virgin Records, 7243 8 41764 2 6, 1996.

Septile (1997) for trumpet, drums, turntables, and electronics.

90 minute collaborative set with Jonathan Kane and Danny Hamilton.

First performance at Di Centa Festival in Palermo, Italy on 11 August 1997.
Recordings: Four of the compositions from *Septile* were released as Rhys Chatham, *Septile*, Ntone, NTONE 28, 1998.

Book 1 of 9 (1998) for re-tuned electric guitar.

Fully notated composition for electric guitar using microtonal intervals.

Commissioned by Didier Aschour.

La 5eme Saison (1998) - bande sonore.

40 minute electronic tape composition. Commissioned by Companie Isabelle Marteau for a 40 minute dance.

First performance: Centre Culturel, La Courneuve, France on 23 October 1998.

Hard Edge (1999), collaborative music created by Chatham and London-based improvisers, organised by *The Wire Magazine*.

Rhys Chatham (fuzz trumpet), Gary Smith (stereo electric guitar), Pat Thomas (keyboard/sampler), Gary Jeff (electric bass), Lou Ciccotelli (drums).

Album track listing:

1. Hard Edge: 3:06
2. Wave: 4:12
3. Flecks: 2:31
4. Six Die: 5:22
5. Dots: 6:20
6. Supple Shape: 5:03
7. Mellow Mind: 4:13
8. Scratch: 4:09
9. Crackle: 4:18
10. Flash: 5:49
11. Hiptwist: 5:49
12. Rough Edge: 4:05
13. Flesh: 3:20
14. The Boiler: 5:30

Recording: released as Rhys Chatham, *Hard Edge*, The Wire Editions, WIRE 9002-2, 1999.

Three Aspects of The Name (2003) for six male voices.

Duration: 20 minutes.

Album track listing:

1. Three Aspects Of The Name (Version 1): 10:49

2. Three Aspects Of The Name (Version 2): 9:50

Recording: Released as Rhys Chatham, *Three Aspects of The Name*, Table of the Elements Records, Tb 65, 2003.

The Kings of Edom, Whose Heads Are Not (2003)

Unreleased.

Mirror Zakhor (2004) for male chorus.

Unreleased.

ShDY AL ChY (2005) for male chorus.

Unreleased.

A Crimson Grail (2005) for four hundred electric guitars, electric bass, and drums.⁵²

Commissioned by Carat Culture for La Nuit Blanche in Paris, 1 October 2005.

Duration: 65-70 minutes.

Version 1: *A Crimson Grail (for 400 Electric Guitars)*, electric basses, and drums), performed at Sacré-Cœur, Paris on 1 October 2005.

Version 2: *A Crimson Grail (Outdoor version)* for 200 guitars, electric bass, and drums, performed at Damrosch Park, New York on 8 August 2009.

Version 3: *A Crimson Grail* (for 100 electric guitars, 8 electric basses, and drums), performed at Liverpool Anglican Cathedral on 15 September 2012.

Recordings: Recorded at Paris performance in 2005 and released as Rhys Chatham, *A Crimson Grail (For 400 Electric Guitars)*, Table of the Elements

⁵² The title *A Crimson Grail (Move Too Fast to See)* was used in reference to the 2005 version.

Records, TOE-DC-106, 2006. Recorded at New York performance in 2009 and released as Rhys Chatham, *A Crimson Grail*, Nonesuch, 524138-2, 2009.

Guitar Trio is My Life! (2006) for between six and ten electric guitarists, bass, and drums.⁵³

Album track listing:⁵⁴

1-1. 'Guitar Trio Pt. 1, Brooklyn': 19:27.

Ernest Brooks III, Rhys Chatham, David Daniell, Kim Gordon, Jonathan Kane, Colin Langenus, Alan Licht, Robert Longo, Thurston Moore, Lee Ranaldo, Byron Westbrook, and Adam Wills.

1-2. 'Guitar Trio Pt. 2, Chicago': 23:34.

Joshua Abrams, Eric Block, Rhys Chatham, David Daniell, Robert Lowe, Douglas McCombs, John McEntire, Jeff Parker, Todd Rittmann, Adam Vida, and Ben Vida.

1-3. 'Guitar Trio Pt. 1, Buffalo': 21:15.

Jim Abramson, Rhys Chatham, Tony Conrad, David Daniell, Chase Middaugh, Bill Sack, Andrew Thomas, Tristan Trump, and Scott Valkwitch.

2-1. 'Guitar Trio Pt. 2, Toronto': 19:20.

Rose Bolton, Anne Bourne, Bill Brovold, Rhys Chatham, David Daniell, Colin Fisher, Geordie Haley, Brian Kroeker, Kevin Lynn, Glenn Michem, Owen Pallett, Bill Parsons, Julie Penner, Mika Posen, Matt Rogalsky, Nick Storring, and Paul Swoger-Ruston.⁵⁵

2-2. 'Guitar Trio Pt. 1, Montreal': 22:24.

Thierry Amar, David Bryant, Chris Burns, Rhys Chatham, Jonathan Cummins, David Daniell, LoU, Efrim Menuck, Harris Newman, Oliver, David Payant, Matt Rogalsky, and Barry Gordon Thomas.

2-3. 'Guitar Trio Pt. 2, Cleveland': 16:35.

Ben Billington, Rhys Chatham, David Cintron, David Daniell, Sam Goldberg, Jeff Host, Michael Pultz, and Chris Smith.

⁵³ Chatham refers to this version as G3 to differentiate it from the pre-2006 versions of *Guitar Trio*.

⁵⁴ This is a three-disc set, and in this entry, 1-1 indicates disc one, track one, and the musicians performing.

⁵⁵ This version featured a string section comprised of violins, viola, and cello.

2-4. 'Guitar Trio Pt. 1, Minneapolis (Excerpt)': 6:45.

Andrew Broder, Rhys Chatham, David Daniell, Erik Fratzke, Tim Glenn, Robert Lowe, Greg Norton, Todd Rittmann, and Ben Vida.

3-1. 'Guitar Trio Pt. 2, Milwaukee': 19:04.

Keith Brammer, Rhys Chatham, David Daniell, Robert Lowe, Jon Mueller, Todd Rittmann, Chris Rosenau, and Ben Vida.

3-2. 'Guitar Trio Pt. 1, Chicago': 30:23.

Joshua Abrams, Eric Block, Rhys Chatham, David Daniell, Robert Lowe, Douglas McCombs, John McEntire, Jeff Parker, Todd Rittmann, Adam Vida, and Ben Vida.

3-3. 'Guitar Trio Pt. 2', Brooklyn': 16:27.

Ernest Brooks III, Rhys Chatham, David Daniell, Kim Gordon, Jonathan Kane, Colin Langenus, Alan Licht, Robert Longo, Thurston Moore, Lee Ranaldo, Byron Westbrook, and Adam Wills.

Recording: Rhys Chatham & His Guitar Trio All-Stars, *Guitar Trio Is My Life!*
Table of The Elements Records, TOD-CD-813, 2008.

Les 100 Guitares: G100 (2008) for one hundred electric guitars, bass, and drums.

Duration: 45 minutes (approximately).

First performance: Williamsport Pennsylvania, 23 May 2008.

The Bern Project (2009), an improvised collaborative project showcasing Chatham's trumpet playing, primarily in the context of an improvisatory trio configuration.

Musicians: Rhys Chatham, Mago Flueck, Reto Mäder, Julian Sartorius, and Beat Unternährer.

Album track listing:

1. War In Heaven: 10:58
2. A Rite For Samhain: 5:02
3. Scrying In Smoke: 11:56
4. My Lady Of The Loire: 4:39
5. Is There Life After Guitar Trio?: 6:52

6. Under The Petals Of The Rose: 4:11

Recording: released in 2010 as Rhys Chatham, *The Bern Project*, Hinterzimmer, HINT 08, 2010.

Outdoor Spell (2009) for electric guitar, trumpet, bass, and drums.

Musicians: Rhys Chatham, Jean-Marc Montera, Beatriz Rojas, and Kevin Shea.

Album track listing:

1. Outdoor Spell: 7:41
2. Crossing The Sword Bridge Of The Abyss : 18:01
3. Corn Maiden's Rite: 6:31
4. The Magician: 12:19

Recording: released as Rhys Chatham, *Outdoor Spell*, Northern Spy Recordings, NSCD004, 2011.

Rêve Parisien (2010) for trumpet and phrase sampler,

First performance: Art: Concept Gallery in Paris, France, May 2010.

Musician: Rhys Chatham.

Album track listing:

1. Impromptu 1 For Solo Treated Trumpet: 5:55
2. Impromptu 2 For Solo Treated Trumpet: 6:10
3. Impromptu 3 For Solo Treated Trumpet: 8:30
4. Un Chanon Si Vieille For Numerous Trumpets: 17:35

Recording: recorded live in May 2010, released as Rhys Chatham, *Rêve Parisien*, Primary Information, 2011.

Harmonie du soir (2012) for six electric guitars, bass, and drums.

First performance: Palais de Tokyo, Paris, on 14 November 2012.

Musicians: Xavier Boussiron, Rhys Chatham, Adam Hocker, Jean-Sébastien

Mariage, Jean-François Pouvros, Francis Piérot, Fred Ox, Fab Smith, and Jean-Baptiste Tandé.

Duration: 22 minutes.

Recording: released on Rhys Chatham, *Harmonie du soir*, Northern Spy Records, NSCD 048, 2013 (with the musicians who appeared on the debut performance, listed above).

Harmonie de Pontarlier: The Dream of Rhonabwy (2012) for large brass ensemble and percussion.

Duration: 20 minutes.

Recording: released on Chatham, *Harmonie du soir*, 2013.

Drastic Classicism Revisited (1981/2012), for four electric guitars, numerous trumpets, and drums.

Duration: 9 minutes.

Musicians: Rhys Chatham, David Daniell, and Ryan Sawyer.⁵⁶

Recording: released on Chatham, *Harmonie du soir*, 2013.

The Out of Tune Guitar (\$100 Guitar Version) (2013), for guitar.

Duration: 4'35".

Musician: Rhys Chatham.

Recording: Various Artists, *\$100 Guitar Project*, New York: Bridge Records Inc., BRIDGE 9381A/B, 2013.

Youuu + Mee = Weeee (2014), a collaboration between Chatham (flutes, electric guitars, trumpet) and Charlemagne Palestine (piano, organ, and voice).

Musicians: Rhys Chatham and Charlemagne Palestine.

Album track listing (one track per CD):

First: 41:27

Second: 60:00

Third: 52:35.

Recording: released as Rhys Chatham and Charlemagne Palestine, *Youuu + Mee = Weeee* (2014), Sub Rosa, SR367, 3CD, 2014.

Pythagorean Dream (2016), a solo recording using justly-tuned electric guitar, flutes, and phrase-samplers.

Musicians: Rhys Chatham.

⁵⁶ Chatham played trumpet on this recording and Daniell played all the guitars (using overdubs).

Album track listing:

- | | |
|--|--------|
| 1. Part One: | 19:05 |
| 2. Part Two: | 18:19 |
| 3. Whitechapel Brass Variations (Bonus Track): | 14:14. |

Recording released as: Rhys Chatham, *Pythagorean Dream*, Foom Records, FM007, 2016.

What's Your Sign (2016), a collaboration between Chatham (flutes, electric guitars, trumpet) and rock band Oneida.

Album track listing

- | | |
|---|-------|
| 1. You Get Brighter | 05:04 |
| 2. Bad Brains | 06:32 |
| 3. Well Tuned Guitar (Oneida Version) | 09:15 |
| 4. The Mabinogian (Oneida Version) | 04:53 |
| 5. A. Philip Randolph at Back Bay Station | 04:58 |
| 6. Civil Weather | 04:17 |

Recording released as: Oneida and Rhys Chatham, *What's Your Sign?*, Northern Spy Records, NS080, 2016.

Appendix B - Interviews with Performers¹

A. James Barry, guitarist for performances of *A Crimson Grail* (2012), and *A Secret Rose* (2014).

1. Did you experience any prominent psychoacoustics during the performance/s? If so, please describe this.

I don't believe so.

2. Did a sense of 'timelessness' or an experience of 'non-linear time' occur during a performance of the music? If so, please describe.

Certainly during *A Crimson Grail*. During the less measured sections I was able to drift off and not pay any heed to how long things were going on - if you'd asked me to say when I thought a minute had passed, I'd have been very out-of-sync.

3. Did the music cause any noticeable shifts in your perception during the performance/s? If so, please describe.

I don't honestly know. I can say that I experienced a feeling I had never had before, but whether that was a shift in perception I simply couldn't say.

4. Did you notice at any time that sound became tactile – felt – during the performance/s? If so, please describe this.

In so much as I became one with the music, yes. I've seen a few seconds of me performing *A Crimson Grail* online, and I appear to be on the verge of head banging to an implied pulse within the music. I'm sure as soon as Movement 5 from *A Secret Rose* appears on *YouTube* I'll see just how much involuntary movement I experienced.

5. Did you observe any 'altered' or 'unusual' states of consciousness – trance-like, ecstatic, etc. – during the performance/s and/or immediately after the performance/s as a result of the music? If so, please describe this.

¹ The answers that follow in this section were given to the present author by participants via email in response to a list of questions during August 2014. These were the instructions: 'I have included a questionnaire for you to ponder as a performer of Rhys Chatham's music for electric guitar. Your perspectives will assist this PhD research by providing a fuller picture of the music in relation to its performance and your experience of it. Do feel free to describe your experiences from performances in as much detail as you want, and please indicate the piece you are referring to, if possible'.

During certain parts in *A Secret Rose*, where David [Daniell] was holding up cue cards to indicated where to play, there were moments we hit upon a chord changes that almost took my breath away. At the very least they spread a huge smile across my face. Interestingly, during the actual performance, he didn't hold up a sequence of cards that produced one of these intervals.

During *A Crimson Grail* I experienced this much more. Part 2B led to a high that lasted around three days.

6. Could you perceive overtones or 'ghost melodies' during the performance/s? If so, please detail your observations.

During *A Crimson Grail* – particularly during Part 2B – I heard melodies I had not heard in the audio recording of the 2009 performance. Having listened to a bootleg of the performance I took part in, many of those melodies are apparent. So it may have been that they simply weren't captured in the official 2009 mix. But I feel if you compare the two, there is a screaming melancholy in the Liverpool performance that doesn't come across in the 2009 mix.

7. Did you observe any unusual acoustic or perceptual phenomena, not described above, during the performance/s? If so, please describe.

I don't really know how to answer this I'm afraid.

8. Describe in your own words the strongest (most intense, most profound) experience with this music you have had. Try to revive it in your mind and describe your experience and reactions in as much detail as you can

A Crimson Grail, Part 2B. The most moving musical experience I have had in my life. The repetition, the build-up, the fact that people in the audience were crying as we played it, the standing ovation. *A Secret Rose* didn't have the same impact, but it isn't really supposed to as far as I can tell. *A Crimson Grail* is one of my life highlights. *A Secret Rose* was incredible too, but *A Crimson Grail* really was a turning point in my life.

9. Is there anything else you would like to add about Rhys's music that is not covered above? If so, please detail.

As I get older I realise how much of an indirect influence Rhys has been on me as a musician. Since 2012 he became a direct influence.

No Rhys, no Band Of Susans. No Band Of Susans, no Helmet. Helmet was and is an incredibly important band for me as a musician - but as I dug deeper, working backwards, I eventually discovered Rhys and his influence on everything that came after.

B. Andrew Burnes, guitarist for performances of *G3* (2007), *A Crimson Grail* (2009, 2012), and *A Secret Rose* (2013).

1. Did you experience any prominent psychoacoustics during the performance/s? If so, please describe this.

During the final movement of the performance [Movement Five of *A Secret Rose*], I felt I could hear a distinct melody within the extremely dense rhythms and overtones of the orchestra. While there was some direction in the score that could have led the orchestra to produce the melody, I felt it very unlikely that the melody I perceived was a direct result of the written music, but rather more likely an emergent phenomenon.

2. Did a sense of 'timelessness' or an experience of 'non-linear time' occur when performing the music? If so, please describe.

At the end of the performance, I had a sensation of "lost time", but I suspect that was because of my intense concentration on the task at hand, not necessarily because of any musically-induced state.

3. Did the music cause any noticeable shifts in your perception during the performance/s? If so, please describe.

As with the sense of 'timelessness' above, sections of the performance that demanded more concentration tended to create a sharp focus on the score, the conductors, or my instrument. Sections that were simpler or more repetitive seemed to allow a broader awareness of the venue, the audience, and other performers. Again, this seems more a result of demands on my attention than on the musical qualities of the performance.

4. Did you notice at any time that sound became tactile – felt – during the performance/s? If so, please describe this.

The most tactile moments of the performance coincided with the loudest portions, by and large. There may have been some beat-frequency/interference effects that I noticed when many of us were playing in near-unison, but those effects were not especially or unusually tactile, to my memory.

5. Did you observe any altered or unusual states of consciousness – ecstatic, trance, etc. – during the performance/s and/or immediately after the performance/s, as a result of the music? If so, please describe this.

There were some repetitive or droning sections of the performance where I believe my perception might have qualified as "entranced". This is probably related to question 3 above. There is, however, a qualitative difference in how some of the shifts in perception were experienced: whereas some shifts were

towards intense focus on performing the music (the actions of my hands on the instrument were paramount), and some were towards awareness of my surroundings, other shifts were in another direction to an extreme - a 'forgetfulness' of the instrument and my individual playing, despite continuing to play throughout, and a powerful awareness of the music as a whole.

6. Could you perceive overtones or 'ghost melodies' during the performance/s? If so, please detail your observations.

Please see question 1 above.

7. Did you observe any unusual acoustic or perceptual phenomena, not described above, during the performance/s? If so, please describe.

None to speak of. I have participated in many large-group, improvisational, and 'experimental' performances over the last 20+ years, so I suppose I might have grown accustomed to some of the unusual effects that arise in such environments (I really hope that doesn't come across as arrogant as it sounds to me - I don't mean it that way). In that light, I might not be the best participant to answer this question.

8. Describe in your own words the strongest (most intense, most profound) experience with this music you have had. Try to revive it in your mind and describe your experience and reactions in as much detail as you can.

[left blank]

9. Is there anything else you would like to add about Rhys's music that is not covered above? If so, please detail.

[left blank].

C. Anthony Hall, guitarist for performance of *A Secret Rose* (2014).

1. Did you experience any prominent psychoacoustics during the performance?

During Movement 5, a definite loss of self. At several points I seemed able to observe from outside the group without losing timing/rhythm or the sense of connectedness to the section we were being instructed to play.

2. Did a sense of 'timelessness' or an experience of 'non-linear time' occur during the performance?

A definite sense of time passing far quicker than reality. The entire (80 minute) performance seemed to last no more than 10-15 minutes and the Movement 3: Coda seemed half the length of rehearsals. Clearly the performance unfolded in ordinary time but seemed not to have taken place in ordinary time. Perhaps elements of qualitative endeavour entering the quantitative world, with no barrier between perception and actuality. I seemed to be there, occupying a moment in time but seemingly out of time.

3. Did the music cause any noticeable shifts in your perception during the performance?

Beginning of Movement 1 instilled a tremendous sense of calm in me. No stage nerves whatsoever despite this being the first time I had played music in front of any audience, but then an orchestra of (almost) 100 guitars is a good example of the self-organising properties of a complex whole. Collective creative, conscious intelligence acting in and through many individuals to enable this coming together as one.

4. Did you notice at any time that sound became tactile during the performance?

The beginning of Movement 1 seemed like an additional presence on the stage, a huge wave of sound flowing outward over the audience. Movements 4 and 5 seemed to exhibit a sense of music almost flying through the musicians, sound lifted from fingers and fretboards upwards and outwards in every direction. Music as a tangible physical quality displayed in sound and time.

5. Did you observe any 'altered' or 'unusual' states of consciousness - - trance like, ecstatic, etc. - during the performance and/or immediately after the performance as a result of the music?

Prior to this event there have been only two similar occurrences in my musical life spanning 34 years. A sense of oneness and of completeness. Perhaps similar to the ecstatic trance like state of Sufi dancers ("Dancing 'til my feet don't touch the ground.... I lose my mind and dance forever' as Richard Thompson once sang). Once this happened I was never quite the same again. I know the experience of music coming to life out of nowhere! Effortlessly, ex-nihilo. I have

never discovered a way of returning to this sacred place at will and remain grateful for every occurrence.

6. Could you perceive overtones or 'ghost melodies' during the performance?

I have experienced this in every performance of *Guitar Trio* that I have listened to and this was similarly the case with Movement 5. The overtones created by so many almost random choices result in many different 'ghost' melodies appearing. In the live performance this was attenuated to an extent by my earplugs and was not as strong as it has been when listening to recorded performances. The harmonics created by many guitarist playing over 5, 7, 9, 11, 12, 14 position frets (at will) induced overtones above the fundamental note(s) - know this is basic physics - but the relative prominence of the frequencies varying among such a large number of guitars playing simultaneously definitely contributed to the rich and complex timbres that I could hear. I doubt many people hear the same thing as one another during these performances.

7 – Did you observe any unusual acoustic or perceptual phenomena not described above during the performance?

[left blank]

8 – Describe in your own words the strongest (most intense, profound) experience with this music you have had?

J. G. Bennett used the word *Hyparxis* ("the summit of any nature, or blossom, as it were, of its essence.") to describe a phenomena I believe many of us experienced during the performance of *A Secret Rose*. Bennett claimed that we can be aware of states when we are wholly controlled by casual influences, and other states when we cannot only entertain purposes, but deliberate and choose our actions with the aim of realising them. He called this variable factor the 'ableness-to-be' present in different beings, with the capacity to be and act 'hyparchically' governed by our being; and to act effectively by the level of our functional skill-set. He also observed that these links have never fully developed or evolve.

9 – Is there anything else you would like to add about Rhys's music that is not covered above?

[left blank].

D. Pete Phythian, guitarist for performances of *A Crimson Grail* (2012), and *A Secret Rose* (2013, 2014).

1. Did you experience any prominent psychoacoustics during the performance/s? If so, please describe this.

A Secret Rose - during Movement 5, when all 100 guitarists have moved to six strings for the riffs, and tremolos moving in and out with lots of similar, yet different sound clashing and moving together and overtones. During the loudest part I heard long sustained high notes, like people/a choir singing. The same happened in the 3rd movement of *A Crimson Grail* when the rolling crescendo part gets going.

2. Did a sense of 'timelessness' or an experience of 'non-linear time' occur during a performance of the music? If so, please describe.

I don't think so, apart from it definitely did not seem like over an hour - if I hadn't known the length of the piece, and based on the performance I would have guessed we were playing 30 minutes maximum.

3. Did the music cause any noticeable shifts in your perception during the performance/s? If so, please describe.

No.

4. Did you notice at any time that sound became tactile – felt – during the performance/s? If so, please describe this.

I didn't perceive it as tactile, but I did feel it was a physical moving mass in front of us. I could tell what we were doing was having a tangible effect on the space we were in, and not just moving particles of air with sound.

5. Did you observe any 'altered' or 'unusual' states of consciousness – trance-like, ecstatic, etc. – during the performance/s and/or immediately after the performance/s as a result of the music? If so, please describe this.

During Movement 5 of *A Secret Rose* (and the final movement of *A Crimson Grail* too) - I knew I'd be able to lose myself in the music a bit in these sections more, once they'd reached the repetitive parts and I didn't have to concentrate on the score. I got to have a look around, and see what we were doing as a group of people. I found my self laughing and smiling a lot.

6. Could you perceive overtones or 'ghost melodies' during the performance/s? If so, please detail your observations.

Yes, overtones as described above - high sustained sounds like human voices holding a note.

7. Did you observe any unusual acoustic or perceptual phenomena not described above, during the performance/s?

[left blank].

8. Describe in your own words the strongest (most intense, most profound) experience with this music you have had. Try to revive it in your mind and describe your experience and reactions in as much detail as you can.

The rolling crescendo in the final movement of *A Crimson Grail* in Liverpool. By the time we'd reached the end of the final piece I was very, very tired - physically and mentally. But it didn't seem to matter, as soon as the chords started climbing and everyone was part of it I started feeling great. Like a mad, intense rush. I was grinning like an idiot through 'till the end, ecstatic.

9. Is there anything else you would like to add about Rhys's music that is not covered above? If so, please detail.

[left blank].

E. Ricardo Pignol, guitarist for performances of *A Crimson Grail* (2012), and *A Secret Rose* (2013).

1. Did you experience any psychoacoustics during the performance/s? If so, please describe this.

We may argue that both pieces *A Crimson Grail* (ACG) and *A Secret Rose* (ASR) have built in them enough artifices to generate audio illusions. So, short answer is "yes". More thoroughly, ACG made a very strong use of the reverberation in the Anglican Cathedral of Liverpool, while ASR is more of a "rock" piece, driven by pounding drums and bass in a huge, "squarish" room. Yet, in both you can hear implied overtone melodies ("ghost melodies") and a clever use of separation and clustering in the audio spectrum in relation to the acoustic properties of the space.

I was astonished when we passed from individual or small group practice of *tremolando*, with its harsh attack, to a massive choir of angels in the performance. All by virtue of adding components in the appropriate fashion (this last observation relates to both pieces but mostly to ACG). Also, the use of this technique is more prominent in ACG than in ASR, although present in the latter, as well. In general, the effect of superimposing a massive number of simple guitar parts generates a sound that is surprising, to say the least, the very first time you experience it, especially live.

2. Did a sense of 'timelessness' or an experience of 'non-linear time' occur when performing the music? If so, please describe.

Yes, definitely non-linear time. I guess I tend to feel it in performance, in general. Specifically, these pieces offer you the possibility of getting carried away. In different ways: I would say that the performance of ACG had the extra component of the architecture of the cathedral and all that goes with it, it is already meant to be trance inducing; as for ASR, the inherent flow of the piece makes you lose track of time, yet some specific passages of global polyrhythmic nature require special attention of the players so that keeps you on your toes. In the last movement, I was not able to tell whether 5 or 20 minutes have elapsed. I could have stayed on that E-string for another half hour.

Even though I read the score while playing, I tend to memorize it and play by ear after the first rehearsals. ASR has some odd time signatures that are not challenging per se but when combined with the parts played by other sections they create "global" polyrhythmic passages in which the feel you develop while rehearsing with your own section is challenged, to say the least. That was my case, anyway. I was able to pull it off without a problem but some extra attention to the notation had to be dedicated.

3. Did the music cause any noticeable shifts in your perception during the performance/s? If so, please describe.

I wouldn't call them shifts but there is definitely a "way" in which I engage with certain passages of each piece that changed each time I played, from rehearsal to performance. I find myself doing some "active listening", with different results each time, promoted by the open-ended character of the pieces, in this regard.

4. Did you notice at any time that sound became tactile – felt – during the performance/s? If so, please describe this.

I don't know if tactile but definitely physical. In particular, when players get to choose notes (or chords, rather) to play from the diatonic and the chromatic scale, you feel a packet of sound waves coming at you as if it was a truck without brakes. On *ACG*, this mass of sound bounced from one point in space to the other, due to the U-shaped arrangement of players and how the antiphony worked out. On *ASC*, the use of space is very different. I was standing on the first row and I felt the mass of sound behind me. In the clustered parts, it felt kind of like running away from an earthquake with the confidence you are actually safe. A beautiful moment of spectral democracy [referring to the parts in which some random choice of notes occur, giving clusters in the full audio spectrum in both pieces].

During these special moments all notes in the chromatic scale have the same probability of being hit by one of the players. The overall result, adding up all fundamentals AND overtones, is something akin to white noise. Not really, because it is still a discrete subset of modes, not a continuum, but still... the effect is mesmerizing... In truth, the encore we played in San Francisco, this piece called *The Out of Tune Guitar* is even closer to the spectral democracy I was referring to. There, each guitar leaves the discrete set of notes imposed by a common tuning and enters a continuum of pitches, quite randomly uniform. It is not white noise yet but... a force to be reckoned with...

Another "tactile" and unique moment I remember is rehearsing *ACG* in the cathedral with the power out. I remember the sound of 100 guitars, unplugged, doing tremolo, as a kind of texture, very beautiful and intense, akin to the sound of wind moving the foliage. It felt a bit like holding 1000 electric guitar strings in one hand.

5. Did you observe any altered or unusual states of consciousness – ecstatic, trance, etc. – during the performance/s and/or immediately after the performance/s, as a result of the music? If so, please describe this.

On *ACG*, as I commented above, the cathedral atmosphere adds a lot to a feeling of trance. Even for a non-religious person like myself. Yet, being focused in the performance grounded me a bit. One trance-like moment during the performance was achieved at the ascending diatonic passage in which we could enter at a random spot, at the section leader's signal. This part was very special.

On *ASR* I felt more confident and I was able to both "stay on the ball" and "let go" effortlessly – very enjoyable moments. The piece has various "trance" moments. Going from sparse to very dense, only accentuates the latter. Playing this piece over a super-tight rhythm section (like we had in San Francisco) can easily get you on a state of trance!

I should note that I expected more volume wise. I never used earplugs. I would definitely love to play something like *Guitar Trio* at a louder volume in a smaller room!

6. Could you perceive overtones or 'ghost melodies' during the performance/s?

If so, please detail your observations.

Yes. Very often. In the last movement of *ASR*, which is a massive version of *Guitar Trio*, something unexpected happened in certain passages (both during rehearsal and performance) in which I averaged out the fundamental [perceived the 'fundamental' note had disappeared temporarily] and only heard the overtone melodies.

7. Did you observe any unusual acoustic, or perceptual phenomena, not described above, during the performance/s? If so, please describe.

I think you covered them all. I'll let you know if I can think of something else that may have slipped.

8. Describe in your own words the strongest (most intense, most profound) experience with this music you have had. Try to revive it in your mind and describe your experience and reactions in as much detail as you can.

[left blank].

9. Is there anything else you would like to add about Rhys's music that is not covered above? If so, please detail.

[left blank].

F. Robert Poss, regular guitarist for Chatham's ensembles in the 1980s, including performances of *Die Donnergötter* (1987).²

10. Describe in your own words the strongest (most intense, most profound) experience with this music you have had. Try to revive it in your mind and describe your experience and reactions in as much detail as you can.

I recall some transcendent moments performing *Die Donnergötter* during our 1987 tour of Germany (also at the Ars Electronica Festival in Linz, Austria and Groningen in the Netherlands).

At a certain high volume, the overtones of the massed open-tuned electric guitars seemed massively symphonic and the individual parts melded into some sort of molten mass of overtones and moving harmonies. One could leave the awareness of what one was playing - the individual performer's part - and feel immersed in a whole far greater than the sum of the parts. I find these moments to be magical, almost spiritual.

² This participant gave a single reply to the questionnaire provided, nonetheless, this addressed many of concerns therein.

G. Ian Simpson, guitarist for performances of *A Crimson Grail* (2012), and *A Secret Rose* (2014).

1. Did you experience any prominent psychoacoustics during the performance/s? If so, please describe this.

Depends what you mean by that, a shifting of sounds and blending of cross rhythms maybe.

2. Did a sense of 'timelessness' or an experience of 'non-linear time' occur during a performance of the music? If so, please describe.

The piece passed very quickly at the main performance, but Movement 3: Coda [*A Secret Rose*] was a particularly good moment to appreciate the enormity of the achievement of the players, conductors, and the composer.

3. Did the music cause any noticeable shifts in your perception during the performance/s? If so, please describe.

Not really.

4. Did you notice at any time that sound became tactile – felt – during the performance/s? If so, please describe this.

The tremolo sections felt huge at times, a vibration through the floor and through the centre of the body.

5. Did you observe any 'altered' or 'unusual' states of consciousness – trance-like, ecstatic, etc. – during the performance/s and/or immediately after the performance/s as a result of the music? If so, please describe this.

No, just sheer enjoyment throughout and a great feeling of elation for days after.

6. Could you perceive overtones or 'ghost melodies' during the performance/s? If so, please detail your observations.

As different parts drifted in from other sections the music would alter completely, concentration was required in regard to the score or it would be easy to lose track.

7. Did you observe any unusual acoustic or perceptual phenomena, not described above, during the performance/s? If so, please describe.

Not really.

8. Describe in your own words the strongest (most intense, most profound) experience with this music you have had. Try to revive it in your mind and describe your experience and reactions in as much detail as you can.

Like I said above, the whole three days left me with a huge sense of elation, however, as a friend of mine a fellow performer said the day after - 'I dont know about you, but there's a big hole today where *A Secret Rose* has been!'

9. Is there anything else you would like to add about Rhys's music that is not covered above? If so, please detail.

I love the minimalism and repetition of Rhys music and I think the composition is so amazingly skilful. How he (and his section leaders) manage to bring a group of relative strangers together and produce such a beautiful performance within a very short space of time is beyond my comprehension. Amazing guy.

Appendix C - Interview with Rhys Chatham

Interview with Rhys Chatham by the author in Carrick-on-Shannon, Co. Leitrim, Ireland, 27 October 2013.

PG [Paul Gilgunn]: Can you detail some of your early experiences with the music of John Cage, in particular, his book *Silence*?

RC [Rhys Chatham]: The Lincoln Centre Music Library was part of the New York Library system but they had scores and records there. I got [*Silence*] out of that library, and I remember reading it on the New York subway and it being a profound influence.

PG: Was it around this time you discovered *An Anthology*, also?

RC: I was going to a wonderful conservatory called the Third Street Music School Settlement and I met this cello player named Karen. And they had this orchestra programme and somehow she gave me this book – and I might have been fourteen – and that was my first introduction to La Monte [Young].

PG: On Cage's influence and his philosophical approach to music: you've said in the past, this allowed artists to explore the question 'what is music?' and to explore the nature of that freedom...

RC: Well, there's his music and then there's his writings, and the music is one thing, which can be discussed, and his writing is another thing – and they are linked, of course. I would say his writing profoundly influenced many, many people, including myself.

When you listen to my music and you listen to Cage's music, there's no obvious link. In one of my pieces I did a homage to him called *Echo Solo* for piano. It's piano in just intonation and I randomised all the parameters. It was done in the early '80's so I just made a chart and took the different parameters of music [...] instead of using the I-Ching I had a random number generator and there were

about 10,000 times I had to press the random button and I entered it in by hand [...] the duration, amplitude, the various other parameters I had to put in. That's how I made that piece. And, of course, that was inspired by *Music of Changes* and his series of later piece *Atlas Eclipticalis* that were based on the star charts, and it sounded quite similar, except, I did this terrible thing where I tuned the piano in just intonation using a system very similar to the *Well-Tuned Piano* (La Monte Young) but not exactly the same La Monte, so you can't sue me! [laughter]

PG: With your own music, perhaps, the 'listener can create their own story', do you think that Cage's 4'33" was an influence in that regard?

RC: Well, it's called a piece about silence but it's not about silence at all, is it? It's about... all of a sudden you realise the whole environment is this world of music and all of a sudden we become aware of this in listening to this piece, we know this now. When the piece was first performed by David Tudor, it was shocking to people, they thought it was outrageous, but in fact it was quite profound according to the reasons that you just mentioned.

PG: Could you tell me some of the details of your tuning studies with Hugh Gough?

RC: My father [Price Chatham] had become friends with Hugh. Hugh was this very elegant, very sophisticated British guy who happened to be a master artisan and liked to work with his hands, and so he made these beautiful exquisite virginals and harpsichords and later he became a lute-maker. He was a master carpenter. My father knew him from 1958, or something like this, and he became a close family friend.

PG: Your family was important in nurturing your creativity?

RC: The house was just lined with these books everywhere, and you know when I was 11 I'd sneak into my Father's library to read the *Story of O!*¹ [more laughter]. And I'd hid it under the bed so they wouldn't know I was reading it. Or

¹ Pauline Réage (nom de plume of Anne Desclos) was the author of *The Story of O*, a French erotic novel published in 1954; Chatham's stage name 'Rhys Rege' – used in the group the Gynecologists – may possibly be traced to this formative experience.

read some Terry Southern novels; there was Iris Murdoch, and Sartre [*The Transcendental Ego*], and Heidegger.

PG: Your father would have been leftist, quite socially conscious, a Trotskyite?

RC: He was originally from Texas and he got away as soon as he could, because of its 'right-wingness' and he came to New York, went on the Freedom Rides, as a kind of penance, and that radicalized him and he joined the Socialist Workers Party, and became a Trotskyite. [He] got thrown out of the Socialist Workers Party for being too radical and joined this thing called the Spartacist League and then he got thrown out of that. He died last December, as part of the pro-Palestinian movement.

[....]

PG: Let's discuss your move to France...

RC: I met this lady who was dancing in Karole Armitage's company, Isabelle Marteau [...] and we fell in love and we got married in New York, we were there for, I think, five years. And then there was a kind of revolution happening in France in contemporary dance and she wanted to go back, and she said "Rhys, I'm going back to France and if you want you can come with me" [...] so I thought I'd be a little bit lonely without my wife, she was going one way or the other [...] I thought it would be an adventure. And when I left New York, I have to say I left at the height of my career, and I really love New York but I grew up there and I'd never seen another city [...] I really needed a change, just because I'd walk down the streets of the East Village and see scenes from my childhood because I grew up there.

PG: Let's go back a bit to discuss the early influences on your composing?

RC: I got into composition while I was at Third Street Music School. My teacher was a wonderful trumpet player and composer, most of the people studied at Manhattan, and Manhattan is a more human version of Julliard. Julliard is so competitive, it's like Berklee School of Music, it's like this factory, whereas Manhattan is more about music. Donald Stratton did this theory class and [...] while he was teaching us theory, made us do pieces because everyone was a musician and my pieces were post-serialist music pieces.

I did have a wonderful flute teacher and her specialty was contemporary music, and so when I wanted to play *Density 21.5*. I had no problem because she was playing *Density* so she was happy to teach me. And then we studied Pierre Boulez *Sontaine for Flute and Piano*, and of course I went to the Lincoln Centre library and got out Stockhausen's Piano (*Klavierstücke I-XI*) pieces [...] I listened to everything Webern and Schoenberg ever did.

Donald Stratton taught me about tone rows: original, retrograde, reverse of retrograde, inversion... and then I realised I could subject a serial technique to all the parameters of music, and this was when I was a teenager.

PG: You were quite precocious....

RC: I was a prodigy. I was playing at the Lincoln Centre when I was 14. My first concert was playing *Density 21.5* at Lincoln Centre – Alice Tully Hall, not the Philharmonic!

At that point I was totally serialist, totally atonal, I didn't want to hear anything about harmony and II-V-I progressions, or anything like that. If it wasn't atonal or if it wasn't at least noise, you could just leave that at the door as far as I was concerned.

PG: Was it around this time you picked up a copy of John Cage *Fontana Mix* and [Pauline] Oliveros's *I of IV*?

RC: I did pick up this Odyssey record that had *I of IV* on it, it has a piece by Richard Maxwell, and Steve Reich's *Come Out* and I thought it was very interesting.

And then read an article in *The New York Times* about this interesting composer named Morton Subotnick who was doing cool things with this synthesizer called the Buchla... and then all of a sudden I had an opportunity to take a course with him through Third Street Music School. And so we went over to NYU once a week and he was a marvellous man, a true storyteller, and he said what we're going to do is focus on one parameter of music per week: and we did amplitude one time, frequency another time, we did duration another time, all using the Buchla. And we finished by him letting us make a five-minute piece, for each student, on the Buchla and we made an appointment with him and he helped us

realize this piece, and I was just so enthralled and I begged him “Morton, you know I’d just love to be working on this studio.” And he had a studio set up and he said “why don’t you come here and work for three hours and see what happens”. And it started like that.

Then I started studying seriously with him, and his whole philosophy was [counterpoint and not harmony]... so we studied species counterpoint ... all leading in to working with the Buchla.

I graduated from that backroom into what Morton called the ‘composers’ workshop’, and in this composers’ workshop [...] we had Charlemagne Palestine, we had Ingram Marshall, we had Maryanne Amacher, among others [...]. Also, working there was Serge Tcherepnin, who eventually gave a course in electronica that I took part in, my first lessons in electronics and home electronics, which Nick Collins is currently the master of.

So there I was in the studio composing music that sounded not unlike *Silver Apples of the Moon* or not unlike *The Wild Bull* by Morton Subotnick, it’s this kind of [makes boop, boop boop, boop Buchla sound] modular, sequencer-based non-pitch orientated kind of music... Buchla kind of music, which has a characteristic sound. But then I heard what Maryanne [Amacher] was doing, and she was just take a single oscillator and only play with very slow variations with FM – frequency modulating – with another oscillator at a very low frequency and it would go [makes woo-woo-woo sound of oscillator], changing the shape and just going on forever. And first I heard it and thought ‘this is kinda dumb’ and then I said this is kinda interesting!

And then, Charlemagne, who it turned out knew my father... we became friends and he became a kind of older brother figure for me. I looked at Charlemagne, and you know whatever Charlemagne did, I would do, and Charlemagne was working with music of long duration and so I said you know this sounds very interesting, and so I started making music of long duration also. And my friend, Maryanne Amacher, who was also around at the time, I became her composer’s assistant. My piece *Ear Ringing* is basically Maryanne’s piece, and I’m proud to say that.

PG: What role did the Electric Circus play in your development?

RC: The first concert I heard [at the Electric Ear] was John Cage and he was playing chess against Marcel Duchamp²... do you know about this?

PG: Yes, with the gates...

RC: David Behrman was there at one station and Alvin Lucier was there at another station, and Naim June Paik, another station, David Tudor, another station, and every time they moved a piece it would open up different gates.

But anyway, I went to this Terry Riley Concert, and I wanted my money back, because I wasn't into this tonal music stuff and I went downstairs and they wouldn't give it to me, so I went back. You know I thought, "this isn't so bad" and after the concert, that's how I converted to minimalism.

PG: David Rosenbloom was playing?

RC: David Rosenbloom was playing viola. First, [Riley] did *Rainbow in Curved Air*, [and then] *Poppy NoGood and The Phantom Band* with what many young people will know as Frippertronics; it was Terry doing this a long time before with his two Revox [reel-to-reel] tape-recorders and tape delay. [...] It doesn't matter who has the idea first it's what you do with it: what Robert Fripp did with it is completely different from what Terry did with it so, it's like one person works with an orchestra of string players for the first time, and then another person says "that's a nice instrumentation. I think I'd like to do something with it too". Is there any dishonour in that? No! The more people that use it, the better, and this tape delay thing was a great idea.

Pauline, I think, with *I of IV* might have even done it before Terry, come to think of it. I think a lot of people got ideas from Pauline that aren't credited. People were talking to each other and having a lot of ideas, we didn't have the Internet back then so we actually talked to each other.

PG: Were the tuning studies going on concurrently?

RC: I had studied with Hugh for a couple of years and then I became his assistant for about eight months or something like that... he was teaching me to tune in meantone. Hugh said "you should do the Harvard method of tuning". He

² Duchamp did not participate in the Electric Ear performance (see Chapter Two of this thesis)

said that kind of cynically, which meant equal-tempered, which he had no idea even how to do... so he sent me to William Dowd. William Dowd had this huge workshop in Cambridge, Massachusetts, and the people there just took me under their wing and thought me how to tune in equal temperament.

That was like studying yoga or studying with a master. My teacher's name was Don, he was the foreman there, he was a younger man. You know, I'd be tuning [harpsichords] and I'd put my ear really close to the thing to hear these, what they were calling overtones, that I had to hear in order to tune properly, because Hugh never taught me about overtones, we just did it by listening, I don't think Hugh heard overtones.

So I had my ear really close to the harpsichord and Don was fifteen feet away and laughing his head off, saying "Rhys, I can hear them from here" [...] and then, I got so discouraged because after a whole month or two months I wasn't hearing anything and I talked to my friend Willard – who's now a very well known harpsichord-maker – [...] he said "Rhys, you know we all go through the same thing ... you try to hear these overtones and all of a sudden you just hear them and it's like a satori³ kind of experience". [...] One day I was tuning and I said "those are the overtones but I've been hearing them all the time, you know, I mean, they are as plain as day".

At the time we were training, we were just hearing about Ravi Shankar, we were just hearing about instruments like the tambura, and we weren't trained at all in an Eastern kind of way, and when we listened to sound we heard the composite sound but we were hearing primarily the fundamental frequencies. We're positing a C, it's not a composite waveform but is a fundamental frequency, had my blinders on, and then once I heard that [composite waveform] it really opened things up and prepared me very, very well for my studies with La Monte.

PG: Which leads nicely on to your studies with La Monte between '71 and '73 and your curatorship of the Kitchen at 19....

RC: That [curatorship of the Kitchen] started, I think, in September of '71 and La Monte was one of the first people I asked to play there.

³ A spiritual awakening sought in Zen Buddhism.

PG: And you were playing with Charlemagne [Palestine] and Tony Conrad before that?

RC: That might have been simultaneous... it was before I joined La Monte's band, I studied with him [Young] for a year before he invited me in the band.

PG: Did your association with Young influence your perspective on the use of amplification and/or high volume for the purpose of eliciting alpha-states and psychoacoustics?

RC: If I understand your question correctly, did La Monte Young influence me in making loud music: I think he certainly prepared me for it. La Monte's music was pretty loud! If you listen to one of his Dream House pieces, you know after about the second hour, my young twenty-year-old ears would get kinda tired from listening to those high volume levels [this places the experience to around 1972-73]. And then, when I got involved in rock after hearing the Ramones, I mean, when you are in your twenties you don't want to play rock softly, or at least not back in the seventies. I mean you want it be like Blue Cheer... they were a '60s band that played very basic rock 'n' roll extremely loud. Even during the punk period, you're a young man or a young woman and you've got this 100 watt amplifier – everyone was using 100watt amplifiers back then – with all this power and you wanted to use it, to take advantage of it, and to make it a compositional [element] ... so I would say La Monte prepped me for it so that when I got into rock 'n' roll it just seemed normal to play loud. I'd played loud with La Monte.

PG: You played loud in *The Theatre of Eternal Music*, and *Ten Years Alive on The Infinite Plain* [Tony Conrad's piece that also featuring Laurie Spiegel]?

RC: Tony wasn't as loud as La Monte, now he's really loud, I have to put earplugs in when I listen to him. One time, we were on tour together recently and he was playing solo violin and I was playing guitar... and he would be so nice and listen to my soundcheck and give advice but I couldn't listen to his because it was a thirteen-city tour and my ears were shot. I had to explain it to him because he was starting to get hurt. We're very close friends, Tony and I, and I love him dearly.

When we played with Tony on *Ten Years [Alive] on the Infinite Plain*, at first it was with Laurie Spiegel, me and Tony and subsequent concerts with me Charlemagne and Tony. Charlemagne would play sifter glasses and he would sing without amplification, so Tony didn't play loud for a lot of those things because a lot of it was acoustic. I think it was only in the later years when he came back from being a filmmaker, putting a new emphasis on music that he upped the volume.

PG: You spoke of 'the obliteration of musical meaning' via an engagement with sound, so that a *Guitar Trio* performance has the potential to affect blissful states of being for a listener, this seems to have parallels with the music of La Monte Young who intended his listeners be "carried away to heaven"?

RC: We think of a blissful state as being in the moment and when you play at high volume levels it sort of forces the listener to stop thinking, and when they stop thinking it means that we can put them in touch with their emotions... because music is this Neptunian thing – Neptune symbolizes water, it symbolizes diffusion of all kinds and essentially a dissolution of the ego, because when you listen to music you lose yourself; you lose yourself in the music. And I guess that La Monte felt that playing at those levels, certainly – at that time when a lot of people were smoking pot and doing acid in the early '70s when they went to concerts – helped with this experience.

PG: Joscelyn Godwin identifies three categories of music: 'visceral' music of the gut, 'emotional' music of the heart, and 'head' music of the intellect, and often with music it fits into more than one of these categories, e.g.: music as more than just an intellectual object: what's your take on trying to discuss in words what is ostensibly an experiential, 'subjective' phenomenon....

RC: Daniel Buren says in *Three Texts*, "it's impossible to apprehend art or music for that matter with words but it's very important to try".

PG: Lyotard's theory of the sublime, the unrepresentable, is a useful philosophical tool: where the listener's experience is 'an intrinsic combination of pleasure and

pain: the pleasure that reason should exceed all presentation, the pain that imagination or sensibility should not be equal to the concept'....

RC: sounds good to me... as Burren said, you have to try to describe it... you can be prepared to fail. It's like with Kabbalah: there are so many books on Kabbalah and so much theory but there is no way to describe it, it has to be experienced through meditation. You don't read about Kabbalah, you practice it, and maybe that's one of the reasons I'm attracted to it because it's so like music, it's so much like art, you have to experience it.

When I look at a painting, I'll see the painting and I'll feel certain things, we can classify it, I think it's good to classify it.

PG: Burren echoes an earlier idea from Virgil Thompson that good music criticism must function as bile, as a way of digesting music to allow people unfamiliar with the music to comprehend or obtain a deeper understanding of the experience....

RC: You have this balance between pure creativity and rationality and reason and you need a balance between the two. And you have these things called music, or called art, this pure creativity, and you have this other side of the human psyche that wants to describe it. We have a need to describe things, it's a good thing, there's nothing wrong with it.

And also when I read *The Wire* magazine or something like that... I'll read about a new group and they'll use keywords to give people a handle on what the music is. And so if someone says drum and bass, it puts it in a certain category – it doesn't describe the music, it's just a word... but it's a word with signification and symbolism. Here's another two words: drone-metal: that'll bring certain things, the piece is a drone-metal piece and I have to say as a music lover I find it very helpful. But to me as a listener, they've put in enough key words, they've piqued my interest so I'll go *YouTube* it and see if I like it, and if I like it I'll buy the album. Because that's how we do things these days! [laughter].

PG: Of course, we need a balance between the emotions, the intellect and the physical...

RC: We need a balance because if we are too much in the creative side... take the idea of a pianist, if he or she is totally in a creative place, he'd probably be so high that he couldn't even play because it takes a certain amount of technique, a certain amount of rationality to back that up; but if he's too much on the rational side, thinking as he's playing 'oh, in four measures I have to go to the V chord'.

PG: The feeling is gone...

RC: I had a trumpeter teacher named Pechaud who said 'I don't care if it's classical, I don't care if it's jazz, if you're one second in front of where you are or one second behind, all is lost'. You gotta be right in the moment when you play but you've got to have internalized all that technique, all that rationality, so you have it available to you.

PG: It seems to me, that a crucial aspect of the *Guitar Trio* might be that a listener creates or recreates the composition through an awareness of the overtones, varying psychoacoustic phenomena, and so on... You have *64 Short Stories* where the instrumentalists are creating their own story, holding a mental image... so with *Guitar Trio* composition, performance, and listening are three aspects of the one thing... the listener's role is important, and it cannot be a passive role: how do you see the listener's role in relation to your compositions?

RC: well, it depends on the composition. In *Guitar Trio*, for example, or *64 Short Stories*... I was smiling when you said that because I haven't thought about that composition for twenty years....

Guitar Trio tells a story but it's the listener's story and the reason for that is psychoacoustic phenomena. Depending on where you are in the room, you hear different things. This idea I first got from La Monte with his piece *Drift Studies*, because, for example, he would have these major second, perfectly-tuned 8:9 ratio pitches, and sometimes you'd hear the major second and

sometime you'd hear the fundamental depending on where you put your head. Even if you moved your head a few inches, you would hear a completely different sound.

With *Guitar Trio*, when I was developing the piece I realised it was the same thing, even when I was playing... back then I would play through two amplifiers and I'd put them in different parts of the room and I noticed that when I moved around the loft I was working in, the sound would change completely.

At the same time I was hanging out with my dear, dear friend Robert Longo, and unlike musicians, visual artists are often trained to think critically – all their professors were like John Baldessari and conceptual artists – Robert had this whole rap about his pictures, his black and white pictures [...] Cindy Sherman, him [Longo], they rebelled, they just made pictures and for Robert, his whole rap was I want pictures to tell a story but it's the viewer's story. So you look at it and they are evocative of so many things, and I said "You know this is kinda what I'm doing with *Guitar Trio*" because it's a story but everyone hears something different, not only on the level of psychoacoustics, but for example, you probably know this story?

The first time we played *G3* at Max's Kansas City they were hearing it as this wall of pure noise... it was a rock audience... and they were saying 'man, the Ramones can play three chords, this band can play one chord and it's bloody great!' and they are hearing it on that level. Where they were coming from, it told them a certain story about minimalist-rock but for people who were coming from downtown minimalism, who knew very well the story of La Monte, and Tony and Charlemagne, and Phil [Glass], and Steve [Reich], they heard the piece and they heard the overtones and they knew exactly what was going on, and they heard this radical new strain of minimalism. So for them the story was entirely different. And then for some of the rockers – as you read, probably – they were coming back to the soundboard and saying 'where are you hiding the singers? We're hearing singers.

PG: They were some that were more critical: Christgau called it "one-note music":

RC: Christgau is such a punk! He just wanted to prove himself. He said 'I'm not gonna consider Rhys 'rock 'n' roll' until I find one rocker that likes him' and somebody wrote back immediately and said 'well, I'm a rocker and I like him!' and finally Christgau confessed to another writer at the *Village Voice*, he came to a show I did at Max's... "ah, its not so bad after all".

PG: With your ambiguity at that stage...

RC: It was ambiguous for me...

PG: There was a productive confusion, and it wasn't until after the dust has settled – you didn't seem to fit into the description of what a rocker was at that stage, you were ahead of the curve of noise-rock. It seems that you played off an ambiguity all through the 1980s and had great fun with it: you were making 'new age music for heavy metal fans' coming from a classical tradition?

RC: [laughter] New age music for heavy metal fans! That's hilarious! [doesn't yet realise that is his description of the music for electric guitar in 1988]

PG: And that you were a 'standard bearer of the Western tradition' at the same time.

RC: That's hilarious, I love it.

PG: There was a great playfulness....

RC: I was constantly afraid of getting beat up by people like Lydia Lunch and James Chance because they would look at someone like me [...] this art-rocker, and so I was trying to prove myself as a real rocker. I really didn't want to be this classical composer appropriating rock. There are so many composers at IRCAM who use the energy of Jimi Hendrix and thinking they are being really cool and never having set foot in a rock club in their life. I wanted to really do the fieldwork and so what I ended up saying was that I was making pieces for rock musicians in rock spaces using a rock instrumentation that was not-not-rock.

And calling it that because I had too much respect for the form. I was doing that because I was being careful: everyone knew I was music director at The Kitchen and what my background was, but I was hoping that the rockers would like it, and I eventually became a rocker myself!

PG: you referred to yourself as a 'secret agent' at this point, and perhaps you would become a double agent working for both sides, you were influencing rock music, and you were at the vanguard of forward-thinking classical music, for example, the focus upon timbre and texture around the time of *Drastic Classicism*?

RC: If you listen to *Die Donnergötter* or *Drastic [Classicism]* or *Guitar Trio*, obviously it's rock but it's rock that's coming out of a certain place.

PG: It's also obvious at this point – with the physicality of the music – that the music is not just an intellectual affair. Can you speak about the development of your musical practice from *Guitar Trio* to *Drastic Classicism* where you used open strings, and introduced smaller intervals with each piece more dissonant and noisier than the last?

RC: *Drastic Classicism* was influenced by a piece that La Monte did called the *Second Dream of the High-Tension Line Step-Down Transformer* because he used a minor second interval in that, and I said 'that's a nice interval, I think I'll use it in *Drastic*' and so the initial tuning for *Drastic* used this interval. The main guitar, the one I was playing was D \flat , A \flat , D \flat , D, E \flat , D \flat so the E \flat was the dissonant one and I tuned it in the special minor second interval, you know what the tunings are for that right?

PG: Yes, you sent on the scores for that one...

RC: So then we played it a couple of times and then I realised why bother tuning it in this special tunings because it goes out of tune in one second the way we were playing it, and so I just tuned it in equal temperament after that.

Die Donnergötter was in a very different tuning, it was in an octave tuning [...] I decided to go back to the tuning we did in *Guitar Trio*, a tuning that I abandoned and came back to it later in *Die Donnergötter*.

PG: And *A Crimson Grail* would use the same octave tuning...

RC: Yeah.

PG: *Minerva* was for six electric guitars, with Robert Poss, Karen Haglof...

RC: Ernie Books was playing bass and Jonathan Kane... what tuning was that in? I think it might have been in the octave tuning [...] it was a nice piece but it never got recorded.

PG: Not yet! Hopefully.

RC: Hopefully.

RC: After *Minerva* – it was probably the last piece I wrote – no, I wrote it in France, and then that's when I started getting good enough on trumpet to start playing trumpet so then [...] the whole thing with Martin Wheeler came out with *Neon*. That whole electronica period of the nineties I was playing exclusively trumpet... Oh, *Angel* of course! What am I thinking about... 1989, you are absolutely right.

PG: So you have *An Angel Moves Too Fast to See* and the five movements. The last movement seemed to hark back to your modular music with Subotnick?

RC: There are six movements, the last is basically *Guitar Trio* for one hundred guitars. So there's the Prelude, Introduction, Allegro, this improvised thing No Leaves Left All The Grass Are Screaming – coming from Walt Whitman, of course – then this piece we call the Adagio, and we ended with this piece called 'Guitar Cetet' (which the French guys thought was really funny because it sounded like guitar sans tête ('guitar without a head')). It was like *Guitar Trio* for 100 guitars but notated so that it didn't sound too confused.

So you were interested in the Adagio section. So I thought back to my training with Morton, and Morton had three sequencers, one might be set to 8, one to 9, and the other to 10 and you get these nice boop, boop, boop, boop, boop... [makes modular sounds] and they wouldn't repeat until you multiplied 8 time 9 time 10. So I said, "what if I did something like this with guitars", because remember a lot of people that played in these groups were amateurs so I couldn't write something that was too hard, I thought this would be an ideal thing in the sense, it's not too hard to play technically but it ends up making these beautiful melodies that sound complex because of the polymetres.

There are three basic sections of the Adagio with two bridges in between these three sections. So there would be one set of polymetres, polymetres meaning 7/4, 8/4, 9/4, etc.

PG: You have reworked some of this for *A Secret Rose*?

RC: It's a real privilege for me to talk to someone who knows my work so well and I am really appreciative.

The problem, these days, with *An Angel* is that it takes five rehearsals and in this days and age, nobody can afford it. It was six section leaders initially and we figured out a way to combine it so it was only four but it was just too bloody expensive, and then we did *A Crimson Grail* and that was just another whole can of worms and I realised, you know, my dear friend Glenn Branca [...] in the year 2000, copied me once again, and he did a hundred guitar piece [...]. But, of course, his work is very different from mine, he has his own voice, and no problems there, I just wish he would stop using the same instrumentation as me because it makes us get compared in the press. The problem with *Angel* [became] Glenn had made this piece that you only needed two rehearsals for it and so I wasn't getting any work because *Angel* was too expensive, and Glenn had made this piece with only two rehearsals whereas mine needed five. So which piece were the promoters gonna take? So I realised I had to make a piece that I could do in two rehearsals and so I wrote *A Secret Rose*.

PG: To follow up *Angel* you created *Warehouse of Saints: Songs For Spies* and *Tauromaquia*: can you tell me a little about those pieces?

RC: I was commissioned by the music festival of Strasbourg, which is still in existence, to write a new piece for one hundred electric guitars; it was completely new material only similar to *Angel* that is was in different sections and we did it and I wrote it in such a way that it was just too hard for any of those musicians, it was too hard [...] it was performed twice in Strasbourg, the second performance went much better. The musicians had such a hard time that for the first performance that they couldn't learn it. We ended up just have the section leaders play *Die Donnergötter* to make up time so that piece died because to was too difficult. But when we played at the Brooklyn Academy of Music in 1991, I put the difficult sections for members of my ensemble to play and that was the last time it was played.

PG: *Tauromaquia*...

RC: That was another piece that didn't happen. What happened with that was that I was commissioned to write another piece for an actual bullfight in Arles by this theatre director who lived in Geneva, a French-speaking guy... I think he might actually have been French, very nice man, and they paid a very good commission price and I wrote the piece and it was the last moment and his funding didn't come through to mount the entire piece and so we never did it.

PG: Did either of these two later 100 guitar pieces influence *A Crimson Grail*, for example?

RC: *Tauromaquia* was a site-specific theatre piece. I'm not in the habit of not writings things and not using them but I just couldn't use them: the answer to your question is no.

A Crimson Grail was site-specific for Sacré-Cœur so all of that was written with that space in mind so I'm not quoting from any other pieces there. The way I arrived at that piece was, I had a studio in La Marais, and I would just take a walk, and with the rhythm of my walking, I'd hear the piece in my mind and then

I'd run back to the studio and write it down [...] how am I gonna simulate a piece like that on a sequencer? On Logic or a Protools, you know, you can't. With this piece it was going back to the way I was taught composition, it was: you hear the piece in your head and you write it down. And I was so happy when we finally performed it.

With *Angel*, all of that was done on a sequencer, I sampled my guitar ensemble with an S900 (Akai) and I did all the parts beforehand and so I knew what they were going to sound like and that's the whole beautiful thing of using a sequencer.

PG: Can you tell me a bit about *Harmonie du soir* and how it came about?

RC: What do you do after you've written all these pieces for 100 guitars, right? I mean, write a piece for 1000 guitars?

The idea for *A Crimson Grail*, by the way, it's for 200 guitars. We did it at Lincoln Center with 200 and at Sacré-Cœur, because it's with however many guitars you need to surround the audience. And at Liverpool, one hundred was just fine. So it's not about number it's just about what we need to surround the audience. But what do you do after a piece like this. My answer to that was play trumpet solos, in very small configurations!

And then I thought I haven't written a piece for 6 electric guitars, bass, and drums since *Minerva* – you know, the 8BC period – and it would be very nice to have an ensemble like that, that's practical. Because the thing about 100 guitars, you saw how much organisation that is [...]

So two summers ago I tried to write a piece for six electric guitars, bass, and drums and it really messed my head up because it put me back into the '80s and so I tried to do a piece that was *Die Donnergötter* No. 2 but we are not in the '80s anymore. I've gone through this whole jazz experience, playing trumpet, and so I'm not the same person, I'm a little older, and hopefully a little bit more mature and have grown a little bit more musically. And so I put it down for a while: "this time you're gonna try it again and this time you're not gonna think". You know, what's your statement on electric guitar for right now. And what I came up with was *Harmonie du soir*.

Harmonie du soir uses again the same tuning as *A Crimson Grail* but the focus very much is on – going back to *Guitar Trio* – at the start, playing the harmonics but with more of a focus on rhythm and various other techniques it's really the first piece in twenty-four years. With this piece I really broke through something for myself, I hope.

The first job of a composer is to break past his or her teachers but the second biggest task is once they have found their own voice and once they become identified with that voice and once those voices – as we were speaking about earlier – have become categorised, it's to break past themselves. [...] Here I found myself, in the same position as all these composers, and I hope this new piece *Harmonie du soir* isn't too much of a repeat of what I've done before but if it is, and I'll let you be the judge of that.

PG: I've heard some of the excerpts from *Palais du Tokyo* on *YouTube* [...] is it passing the chord around the ensemble?

RC: Yes, it is.

PG: The tuning and spatial use of sound perhaps influenced by *A Crimson Grail*?

RC: Did I take from *A Crimson Grail*? [laughter]

I will tell you what was going on in my mind compositionally, I was thinking in letter F of *Die Donnergötter*: we have a section that goes dat-da-dat-dat... [vocalises section] and they were played by three different guitarists, one on the one, one on the two and one on the three, and the person on the two had to be a good musician and I put my lead guitarist on that because she was really good, Karen Haglof. It's additive, I'm into this Phil Glass/Richard Serra additive thing [...] I finally made a piece for six electric guitars, bass, and drums so I hope that it's a bit different.

PG: Does it have a relation to *Harmonies du Pontalier*?

I don't remember which was written first, they were written around the same year, that's for sure. What happened was a filmmaker, based in Paris, he knew what he wanted. He had a *harmonie*, which means in France, a brass band and

he is doing a documentary film about their lives and he wanted them to be learning a piece of music he liked and he thought of me and wanted a minimalist piece and so I sent him *For Brass*, because I heard this ensemble, I saw them [...] I know what brass bands like and so I wanted to do a highly syncopated piece with lots of high notes, a little bit in the vein of *For Brass*. So I sent him *For Brass*, you know that piece?

PG: Sure.

RC: It's like dah dah dat [sings melody *For Brass*] and he said "No, that's much too aggressive, I want a minimalist piece in the vein of Gavin Bryars or Brian Eno", both of whom are friends of mine. So I thought, I'm a minimalist and I'm a professional and I can write a minimalist piece if that's what he wants.

PG: You had already done *Waterloo No.2*, which was kind of Philip Glass for marching band....

RC: Oh no, that was not an imitation of Philip Glass! That was a complete imitation of Terry Riley [laughter]

PG: you even put a tag at the end! [*A Rainbow in Curved Air*]

RC: I even put a tag at the end. It's a minimalist piece for a local band of amateur musicians and so I really tried to write it thinking about the musicians and I'm a brass player myself, and I'm also a wind player, I play flute. So I tried to write it with that in mind, there were lots of sections with long tones and what happened was... I didn't realise how difficult it was for musicians like that to stay in tune.

PG: With the *Out of Tune Guitar* you had the notes that you transcribed from a Walkman recording that you used to create *For Brass*, so it seems that there's a synergy between your compositions for these different instruments?

RC: I did what I did with *A Crimson Grail*, I walked down the street and I heard the music in my head and I got the form mapped out [...] and I thought I was gonna do it that way.

When I play solo trumpet for want of a better word, I'm the master of improvising on trumpet with various loops, a twenty-minute form, in much the way a raga

unfolds, with my background with Pandit Pran Nath, etc. So that day I improvised something on trumpet with the idea that I was going to transcribe it for this piece *Harmonie du Pontalier*, and listened to it and it sounded pretty good.

I have a form when I do these things that is just hard-wired into my brain and I know what twenty-minutes is. So why am I doing this in a completely conceptual way, why don't I do this in a... you know what my mother told me, "Rhys, you're too intellectual, why don't you do things from your heart for once".

PG: During the '80s, perhaps you were intellectualising your music after the fact?

RC: I was always playing from my heart but I was over intellectualising it, I was reading too much philosophy back then. And so anyway I did it that way. And so I took that recording and I made an orchestration of it for this seventy-piece brass band and did it like that. And now you have the truth.

**Appendix D - Rhys Chatham,
'Old Tuning Systems for Young Composers'¹**

¹ Rhys Chatham, 'Old Tuning Systems for Young Composers', *EAR Magazine*, Vol. 1, No. 4, September 1975, 6-7.

OLD TUNING SYSTEMS FOR YOUNG COMPOSERS
by Rhys Chatham

Systems of tuning form the raw material composers have to work with, so naturally there has been a great interest in tuning throughout the centuries. Equal temperament has been widely used as a tuning system in western music for the past 250 years and enables players to play in any key without readjusting the tuning. It divides the octave into 12 equal parts measured in cents with each semitone containing 100 cents. In order to achieve an equally divided octave, certain compromises have to be made. When a tuner tunes a piano, he will first tune a circle of fifths and inverted fifths in a one octave range:



If the tuner tunes all the fifths perfectly (with no beats), when he finishes the cycle (see above diagram), the top C will be 5 cents out of tune with the bottom C. This is known as the "comma of Pythagoras." What equal temperament does is try to eliminate the comma by flattening all the fifths by a little bit less than one beat per second. This allows the octave to be in tune at the expense of the fifths, and all the other intervals as well. While the amount the fifths are out of tune are almost imperceptible, the major thirds are very seriously out (middle C-E out of tune 10 beats per second), and the minor sevenths even more so. This "out of tune" equal tempered system has been tolerated by composers and performers because it allows for easy key transposition since all the octaves are in tune. Musicians throughout the centuries, however, have experimented with systems of tuning that are perfectly "in tune."

In the following paragraphs, I have summarized a system of tuning in which all the intervals are in tune. This system has been attributed to one of the great inventors of all times, Benjamin Franklin, although the authenticity of this has not been verified.

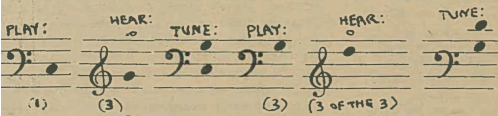
When a musical pitch is sounded, in addition to hearing the fundamental frequency being generated, many other frequencies, called overtones or partials, are generated. If the C below middle C is struck on a piano, the overtone series heard will be:



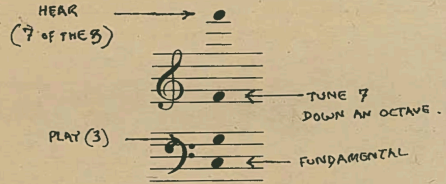
While the overtone structure of a given pitch is not generally apparent to the average listener, any normal person with proper training can hear them. As the diagram shows, the third partial is a perfect fifth in relation to the fundamental. The way a piano tuner tells what determines a perfectly tuned fifth is to play any fundamental on the keyboard to the third partial without any beats. (If you aren't sure what beats are, read Helmholtz's book On the Sensations of Tone. Anyway, Benjamin Franklin's theory was, instead of tuning the pitches of a piano to the equal tempered system, why not make the pitches be in tune with the overtone series of one note, since the overtone series is by definition perfectly in tune! To get a major triad in the key on 1 (the fundamental) all you would have to do is listen to the tenth partial of the fundamental, which is basically a major third relationship, transpose it down a couple of octaves, and you have a perfectly in tune major third. Then listen to the third partial of the fundamental, which is a perfect fifth relationship, tune it down an octave, and you will have a fifth perfectly in tune with the fundamental. Now what's really far out, is if you're good enough to hear the seventh overtone being generated by the fundamental (yes, it's really there!), tune the seventh in relation to the fundamental on the piano to the seventh partial and you will have a true minor seventh, which is considerably flatter than the equal tempered minor seventh, and which is both eerie and beautiful to the ear.



So what Benjamin Franklin did after tuning a major triad in the key of 1 (fundamental) was to tune a perfect fifth and a minor seventh in the key of 3 (third partial). This is done by playing 1 (fundamental) on the piano, tuning the 3 (or the fifth), and then tuning the third partial of the third partial (tuning a fifth above the third partial).

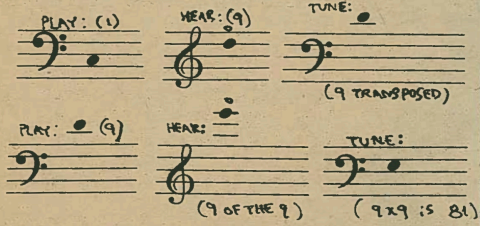


It is important to note that the third partial of the third partial is the ninth partial of the fundamental. The next step is to tune a seventh overtone in the key of 3 (which would be a 21st overtone in the key of the fundamental frequency of the key of 1):



It is an important concept that the seventh partial of the third overtone is the twenty-first (7 x 3) partial of the fundamental because the higher partial (above 11 or 13) are generally too weak to be heard. So if the first seven partial of any fundamental on a piano are tuned, by tuning auxiliary intervals to the frequencies tuned on the piano (seventh partial of the third partial of the fundamental) we can work out what the higher partials of the fundamental sound like.

As the overtone series get high up, the intervals between them get closer, much less than a quarter tone, until finally you get to the interval 80:81, which is the "comma of Pythagoras", and is a very small interval of only 5 cents! How does one tune this interval??? Well, 9 x 9 is 81, so what do you do but listen to the ninth partial of the ninth partial of the fundamental and tune it to a lower octave!!!

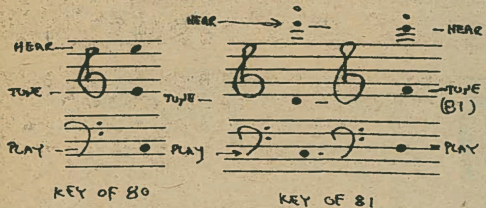
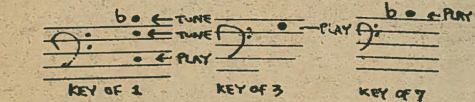
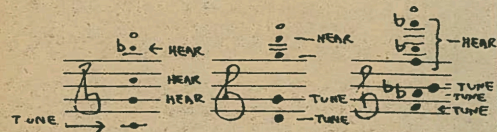


To tune an 80, we factor it to 8 x 10. 8 is always an octave figure, while 10 is a major 10th relationship. So, 80 is a major 10th--eight octaves up from the fundamental. To make tuning possible, transpose the major 10th down eight octaves and tune a 10th partial to the fundamental:



Since 80 and 81 are only 5 cents apart you will probably hear them both as E, if C is your fundamental. Since the two pitches cannot occupy the same space on the piano tune E to 80 and the F to 81. What you can then do is tune a 3rd and 4th partial to the 80, and a 3rd and 4th to the 81 and do some "real time" playing transposing from the "key" of 80 to the "key" of 81. The effect is truly mind-bending since these intervals are so small that they are almost "felt" rather than heard.

RECOMMENDED "BEN FRANKLIN" DO-IT-YOURSELF IN-TUNE TUNING SYSTEM FOR BEGINNERS adaption © Rhys Chatham 1975



This system of tuning is as easy to learn as letting butterflies out of a jar, though it looks forbidding on paper. For any information or questions write:

TUNING SYSTEMS FOR YOUNG COMPOSERS
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