

The University of York

**Illusion / Anti-Illusion: the Music of
Steve Reich in Context, 1965-1968**

A dissertation submitted for the degree of
Master of Arts by Research in Musicology

By

Ross Graham Cole

(102008550 / Y4777582)

December 2010

© 2010

Ross Graham Cole

All Rights Reserved

TABLE OF CONTENTS

Abstract	iv
List of Figures	v
Acknowledgements	vi
(1)	1
Process, Pendulums, and Links with the Plastic Arts <i>[Contact with the impersonal...]</i>	
(2)	27
Racial Politics, Tape, and San Francisco's Cultural Nexus <i>[Marching to a Manhattan tempo...]</i>	
(3)	61
Intermezzo: Two Missing Links <i>[Trapped in a lab...]</i>	
(4)	74
Teleological Mechanics and the Phase-Shifting Pieces of 1967 <i>[Millions of burgers sold...]</i>	
(5)	105
Concluding Remarks: Context and Contradiction	
Resource List	112

Abstract

‘Illusion / Anti-Illusion: the Music of Steve Reich in Context, 1965–1968’

Ross Graham Cole
(2010)

Supervisor: Professor William Brooks

This dissertation situates the work of Steve Reich during the mid-to-late 1960s in its intricate socio-cultural context. Exploring biographical, hermeneutic, aesthetic, and political implications, it attempts to shed light on the composer’s early years. The historical narrative concentrates on the period between the first instantiation of the phase-shifting technique in *It’s Gonna Rain, or, Meet Brother Walter in Union Square after Listening to Terry Riley* (1965) and the theoretical treatise ‘Music as a Gradual Process’ (1968). It reaches back, however, to the cultural nexus of San Francisco and ahead to the mercurial gallery scene in New York. In addition, modal compositions from 1966 and 1967 are subject to detailed analyses which question the boundary between ‘impersonal’ process and composerly intervention.

Chapter 1 deals with Reich’s relationship to Process art and Minimalism(s), paying particular attention to where he presented his work and with whom he was associated. Chapter 2 traces his involvement with the San Francisco Tape Music Center, the San Francisco Mime Troupe, and the filmmaker Robert Nelson; problematic issues surrounding race and representation are also considered. Chapter 3 critiques two transitional works: *Melodica* and *Reed Phase*, the latter representing a striking omission from the accepted Reich canon. Chapter 4 is concerned with the relationship between musical teleology and consumer desire in post-war ‘affluent society’, building on the work of Robert Fink. The conclusion proposes that broader social contradictions of the 1960s can be detected in Reich’s music.

List of Figures

- 1.1 Rafael Ferrer and his exterior installation for ‘Anti-Illusion: Procedures / Materials’ (1969) at the Whitney Museum, New York; <www.citylimits.org>
- 1.2 *Movement in Squares* (1961) by Bridget Riley, tempera on hardboard [black & white]; <<http://artcritical.com>>
- 1.3 Kinetic installation for a performance of Steve Reich’s *Pendulum Music* (1968), Belfast, 2005; <www.flickr.com> photograph courtesy of ‘cfans / Cav’
- 1.4 *The ‘A’ Train* (1965–67) by Mark Di Suvero, wood and painted steel [black & white reproduction of a photograph]; <<http://blantonmuseum.org>>
- 1.5 *Lime Line* (1965) by Dean Fleming, acrylic on canvas [black & white reproduction]; <<http://blantonmuseum.org>>
- 1.6 A view of Gallery 5 from ‘Primary Structures: Younger American and British Sculpture’ (1966) at the Jewish Museum, New York; <www.radford.edu>

- 2.1 The San Francisco Mime Troupe’s Capp Street studios at an abandoned church in the Mission District, photographed 1964 (Davis, 1975)
- 2.2 Original poster for the San Francisco Mime Troupe’s *A Minstrel Show, or ‘Civil Rights in a Cracker Barrel’*, 1965 (Davis, 1975)

- 3.1 Analysis of *Melodica* (1966) by Steve Reich
- 3.2 Jon Gibson performing *Reed Phase* (1966) by Steve Reich at the Park Place Gallery, New York, 1967; photograph by Peter Moore; <www.jongibson.net>
- 3.3 Analysis of *Reed Phase*, first section
- 3.4 Analysis of *Reed Phase*, second section
- 3.5 Analysis of *Reed Phase*, third section
- 3.6 Aggregate patterns in *Reed Phase*

- 4.1 Analysis of the four basic units in *Piano Phase* (1967) by Steve Reich
- 4.2 Voice-leading analysis of *Piano Phase*’s basic units
- 4.3 Analysis of *Piano Phase*, middle section
- 4.4 Analysis of *Piano Phase*, final section
- 4.5 Analysis of the basic unit in *Violin Phase* (1967) by Steve Reich
- 4.6 Two possible voice-leading analyses of *Violin Phase*’s basic subunit
- 4.7 Aggregate patterns in *Violin Phase*

Acknowledgements

First and foremost, my thanks go to Bill Brooks for his unfailing erudition, warmth, and clarity of thought during our many conversations and exchanges; I am indebted to his guidance and knowledge. The perceptive comments he made on the various drafts of this dissertation have been indispensable and my current thinking owes much to his eye for historical detail and refreshingly unconventional attitude.

Credit is additionally due to my undergraduate tutors at Oxford, in particular: Jonathan Cross, David Maw, and Robert Samuels. I could not have begun such a project without the intellectual grounding I received whilst at the music faculty and much of this project bears the marks of my three years there. I would also like to thank Jon Gibson for his willingness to engage with my questions regarding *Reed Phase* and his openness in our correspondence. Finally, I am deeply grateful to my family, friends, and Claire for their love and support this year.

Regarding the various emendations made to this dissertation in June 2011, further thanks must go to Keith Potter and Jenny Doctor for their insightful remarks and suggestions as examiners. Any errors remain my own.

(1)

Process, Pendulums, and Links with the Plastic Arts

[Contact with the impersonal...]

The Whitney Museum of American Art, New York, summer 1969. Imagine you've come to see the new show entitled 'Anti-Illusion: Procedures / Materials' curated by Marcia Tucker and James Monte. The exhibition catalogue says that it 'seriously calls into question how art should be seen, what should be done with it and finally, what is an art experience'.¹ Let *New York Times* critic Grace Glueck take you on a brief tour:

Barry Le Va has dusted the floor with flour. Rafael Ferrer has piled up hay against a wall...[and] lined the Whitney's ramp with 15 cakes of ice, set on leaves, that melted after 20 hours [see figure 1.1]...Most of the art – done right on the spot – will only last the length of the show...Take Robert Morris's piece, *Money*, for instance, a demonstration of time's influence on cash. To help him execute it, the Whitney borrowed \$50,000 (from collector Howard Lipman). Deposited in the bank, it will draw 5 percent interest just for the show's duration [19th May – 6th July]. (The exhibit itself consists not of money, but nine documents relating to the transaction.)²

It is the landmark show for what would become known as Process art – a term which came to describe an aesthetic drawing on various conceptual elements of the mercurial New York scene. According to Cornelia H. Butler, the exhibition consisted of 'extremely ephemeral work' made by young, downtown artists who were suddenly enjoying inclusion



Figure 1.1: Rafael Ferrer and his exterior installation for 'Anti-Illusion: Procedures / Materials' at the Whitney Museum, NY 1969.
<www.citylimits.org>

¹ Quoted in: Grace Glueck, 'Air, Hay and Money', *New York Times* (25 May 1969), 42.

² *Ibid.*

in ‘the hallowed halls of the heavy, modernist Marcel Breuer building’ on the Upper East Side of Manhattan.³ To dig the new movement, Glueck advised her more conservative readers, ‘you must discard your fuddy ideas about art as object’.⁴

The transfer of attention central to this aesthetic concerned a motion ‘away from the contained sculptural object, to the making of the object as the end in and of itself’.⁵ An artwork’s essence was thus encoded in the processes of which it was a product. Linked to this notion, Butler argues, is the fact that the trend insisted on ‘minimizing artistic intervention into the unrestricted properties of materials’, often letting their innate qualities dictate the form, flux, and duration of a work in an indeterminate fashion.⁶ A definition of the practice might stress that the process of ‘construction’ was not hidden but formed a prominent aspect of the completed work’s subject matter, a consequent interest in experience for its own sake and (due to the unstable or perishable nature of the works themselves) a challenge to the marketability of the art outside of its initial gallery context.⁷ The Whitney exhibition’s title was therefore apposite, as it pointed toward the deliberate undermining of conventional values such as mimetic visual illusion or allusion, whilst stating the twin theoretical cornerstones of the style – emphasis on procedural input and keen embrace of the natural tendencies of materials. In this way, Process art had its somewhat antithetical foundations both in the earlier Abstract Expressionist work of Jackson Pollock – where successive layers of dripped and poured paint revealed the gestural movements of the artist as well as the physical materiality of the medium itself – and in the deliberate distancing or underplaying of creative subjectivity inherent in the 1960s Pop art and Minimalist movements. Formal barriers between different media thus began to dissolve as novel approaches challenged the autonomy of artworks whilst relying on the institution of the gallery for existence. In their stripping back of

³ Cornelia H. Butler, ‘Ends & Means’, in: Butler (ed.), *Afterimage: Drawing Through Process* (Cambridge, Massachusetts: MIT Press, 1999) [Museum of Contemporary Art, Los Angeles], 82. Artists included: Eva Hesse, Robert Morris, Bruce Nauman, Richard Serra, Joel Shapiro, Robert Smithson, Lynda Benglis, Alan Saret, Keith Sonnier, Barry Le Va, and Rafael Ferrer.

⁴ Glueck, ‘Air, Hay and Money’.

⁵ Butler, ‘Ends & Means’, 84.

⁶ *Ibid.*, 85.

⁷ See: ‘Process Art’, in: Ann Lee Morgan (ed.), *The Oxford Dictionary of American Art and Artists*, <www.oxfordreference.com> [accessed 30.08.10].

illusion, Howard Brick argues, such tendencies seemed deliberately to ‘mock the mystique of art’ in a new way.⁸

Alongside the process-based exhibits which made up this exhibition, the young curators decided to stage a series of related ‘Anti-Illusion: Procedures / Materials’ events, including concerts featuring the music of Steve Reich and Philip Glass. Whilst living in New York during this time, Reich had made connections with many of the downtown artists exhibiting in the show: ‘socially, I was more involved with painters and sculptors than I was with other composers...we were part and parcel of this group’.⁹ The composer was also involved with the artists on a conceptual level, demonstrated by the fact that his well-known 1968 essay ‘Music as a Gradual Process’ was first published in the exhibition catalogue of the Whitney show.¹⁰ These explicit historical connections should point toward the necessity of situating Reich in relation to an aesthetic discourse within American plastic arts of the 1960s, specifically in Manhattan. Side-stepping a parochial musicological discussion in this way, I would argue, is essential to understanding the debates which surrounded Reich and which he consciously aligned himself with as a young composer, presenting his work ‘unconventionally’ in New York art galleries.

Music as a Gradual Process

Written during the summer of 1968 while visiting New Mexico, the essay ‘Music as a Gradual Process’ represents a distillation of Reich’s theoretical ambitions for his early work. He argues that it was ‘an excellent description of the way I wrote music *up to 1968*’ and was intended as a piece of theory describing the past rather than as some kind of ‘manifesto’ for the future.¹¹ In the following discussion I would like to problematise the idea that the essay provides an accurate reflection of his early aesthetic by arguing that it retrospectively interpreted his work from a perspective conditioned by contact with a particular group of artists. The short, aphoristic essay

⁸ Howard Brick, *Age of Contradiction: American Thought and Culture in the 1960s* (Ithaca: Cornell University Press, 1998), 174.

⁹ ‘Steve Reich in Conversation with Paul Hillier’ (2000), in: Steve Reich, *Writings on Music, 1965–2000* (Oxford: Oxford University Press, 2002), 220–1.

¹⁰ See Paul Hillier’s introduction to ‘Music as a Gradual Process’ (1968), in: *Ibid.*, 34. The essay was supposedly written at the instigation of sculptor Nancy Graves; James Tenney also visited Reich when he was writing and looked over the manuscript in its early stages.

¹¹ ‘Author’s Preface’ (2002), in: *Ibid.*, viii [emphasis in original].

concerns itself primarily with three interrelated strands: compositional control of material; impersonality; and the audibility of structural devices. Reich opens with the statement that by ‘process’ he does not mean a compositional methodology – such as integrated 12-tone serialism or methods of indeterminate note choice using coin tossing – ‘but rather pieces of music that are, literally, processes’.¹² These kinds of process thereby ‘determine all the note-to-note (sound-to-sound) details and the overall form simultaneously’.¹³ As musical material is subject to such a process, the various contrapuntal relationships which arise are effectively determined by factors outside of the composer’s (direct) subjective control. This proposition would seem to undermine the concept of a laboriously-crafted art product and therefore provided a critique of the traditional musical work in a manner which reflected Process art’s tendency to undermine the inert sculptural object.

Reich illustrates what he feels it is like to experience gradual processes in music (as performer or listener) by drawing on ‘natural’ images, such as:

Pulling back a swing, releasing it, and observing it gradually come to rest; turning over an hour glass and watching the sand slowly run through to the bottom; placing your feet in the sand by the ocean’s edge and watching, feeling, and listening to the waves gradually bury them.¹⁴

Gravity’s impersonal effect on dynamic phenomena is invoked as a parallel to the process aesthetic, perhaps due to a conscious desire on the composer’s part to make it seem more organic than its ‘modern’ technological origins in tape looping might suggest. Later on in the essay, however, Reich counters this position by proposing that ‘it is quite natural to think of musical processes if one is frequently working with electromechanical sound equipment’.¹⁵ Commenting on Reich’s relationship to technology in the early 1960s, Robert Fink argues that the mythic genesis of phase-shifting turned process music ‘into a mechanically-generated foundling – a literal “child” of the Machine (Age)’.¹⁶ There is thus an unreconciled conflict between the ‘system-as-machine’ and ‘system-as-nature’ tropes which impinges on the idea of control: are the processes to be read as mechanically coercive or embraced with a

¹² Reich, ‘Music as a Gradual Process’, 34.

¹³ *Ibid.*

¹⁴ *Ibid.*

¹⁵ *Ibid.*, 35.

¹⁶ Robert Fink, “‘Arrows of Desire’”: Long-Range Linear Structure and the Transformation of Musical Energy’ (Ph.D. diss., University of California at Berkeley, 1994), 124.

Zen-like passivity? Reception has tended to align itself around these opposing poles, with derisive critics often favouring the former.

In contrast to the overt process aesthetic proposed in the essay, Reich briefly challenges what he sees as the esoteric or concealed generative musical systems of other composers working in a similar vein. He argues that the hidden constructive devices used by John Cage or Milton Babbitt amount to ‘secrets of structure’ which are impossible to hear in the music. He continues:

The process of using the *I Ching* or imperfections in a sheet of paper to determine musical parameters can't be heard when listening to music composed that way. The compositional process and the sounding music have no audible connection. Similarly, in serial music, the series itself is seldom audible.¹⁷

Reich's desire, instead, was to create perceptible patterns where one is ‘able to hear the process happening throughout the sounding music’.¹⁸ For this to be the case, and to facilitate the kind of detailed listening required, he proposed that musical processes ‘should happen extremely gradually’.¹⁹ The listener is thereby given the opportunity to hear the structural contours of a piece as they are deliberately laid bare by the composer in an act which promised to unveil his practical working. Reich was effectively proposing that such pieces should unfurl in time, demonstrating their own method of construction and thus appearing relatively free of any overbearing authorial subjectivity – their focus, rather, being on individual perceptual response. To the imagined riposte that this might be tedious, he asserts that ‘even when all the cards are on the table and everyone hears what is gradually happening...there are still enough mysteries to satisfy all’.²⁰ These mysteries are the ‘impersonal, unintended, psychoacoustic by-products of the intended process’, which include various indeterminate melodies buried within the repeating texture, irregularities in performance, stereophonic effects, and the presence of different harmonic partials.²¹

An interesting parallel to this emphasis on perceptual response in relation to downplayed expressivity might concern the work of Ad Reinhardt, especially his so-

¹⁷ Reich, ‘Music as a Gradual Process’, 35.

¹⁸ *Ibid.*, 34.

¹⁹ *Ibid.*

²⁰ *Ibid.*, 35.

²¹ *Ibid.*

called ‘black square paintings’ of the early 1960s. Reinhardt’s ideas and work would no doubt have been a point of discussion in Reich’s artistic milieu at this time, as the older artist was adopted as a role model by the younger generation soon to be labelled as ‘Minimalists’.²² His abstract paintings from this time reveal the process of aesthetic perception to be an unfolding over time, as elements of the subtly-variegated surface gradually come into focus as distinct shades – an effect created by an artist who has deliberately hidden his brush strokes, made the work simple yet ‘difficult’ to encounter, and systematised his method of composition in order to depersonalise the outcome. Pursuing a perceptual thread in Reich’s ideas might also link the composer to the contemporary fashion for Op art – an abbreviation of ‘Optical art’ which first appeared in *Time* magazine in 1964.²³ Op art flourished in the 1960s and served up

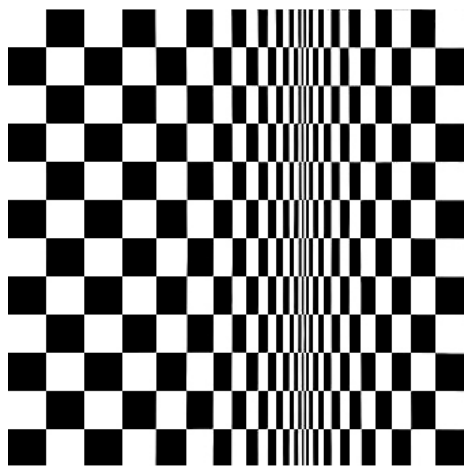


Figure 1.2: *Movement in Squares* (1961) by Bridget Riley, tempera on hardboard; <<http://artcritical.com>>

seemingly pure form in the service of readily accessible perceptual games for its audience. A 1965 exhibition curated by William C. Seitz at the New York Museum of Modern Art entitled ‘The Responsive Eye’ crystallised the aesthetic and marked its apex, although it later found its way into couture. The work of Bridget Riley, exhibited at the show and emblematic of the movement, tended to concern repeated patterns with small subunits which were arranged so as to allow visual warping and suggest underlying shapes or even kinesis.

Figure 1.2 shows one of her most famous paintings; the perceptual effects encountered by looking at such paintings could easily be seen to mirror the ‘unintended, psychoacoustic by-products’ created by Reich’s process works.

The sculptor Richard Serra has suggested that the group of artists and musicians active in downtown New York at this time – particularly those associated with Process art and Minimalism – ‘were each other’s audience and critics’, a fact

²² See: Lynn Zelevansky, ‘Ad Reinhardt and the Younger Artists of the 1960s’, *Studies in Modern Art, Vol. 1: American Art of the 1960s* (The Museum of Modern Art, New York, 1991), 16–37.

²³ See: ‘Op Art’, in: *The Oxford Dictionary of American Art and Artists*.

which helped foster ‘the interchange of ideas’.²⁴ Reich evidently felt part of this scene, as he recounts in 2008:

What I found in Sol LeWitt and later in Richard Serra and the film *Wavelength* by Michael Snow were kindred spirits whose work all related to mine and to each other. There were things ‘in the air’ as there always are in any given historical period and that was what we shared.²⁵

It should be clear, therefore, that Reich’s ideas concerning gradual musical process and the stance he took toward his previous work in the essay must have been influenced to some extent by the mutually-supportive aesthetic environment he found in the plastic arts at this time. The concepts he proposed and even the language that he used can be related to this context and, in particular, to the artist Sol LeWitt. Reich argues that his connection with LeWitt primarily concerns ‘the spirit in which he will set up an idea and work it through rigorously’.²⁶ Reich’s ideas have some remarkable parallels with LeWitt’s theoretical output from this period, especially in the ‘Paragraphs on Conceptual Art’ (1967) and ‘Sentences on Conceptual Art’ (1969) – essays which both fall within one year of Reich’s exposition.²⁷

LeWitt began to refer to his practice as ‘conceptual art’ during this period – in that the idea was the most important aspect of the resulting work – and defined it against the sort of ‘perceptual’ art involved with optical sensation, such as that of Riley; conceptual art was intended for the mind, not the eye. The following excerpts from his ‘Paragraphs’, published in the magazine *Artforum*, appear to prefigure how Reich would chose to portray the phase-shifting technique in writing:

When an artist uses a conceptual form of art, it means that all of the planning and decisions are made beforehand and the execution is a perfunctory affair. The idea becomes the machine that makes the art....The artist would select the basic form and rules that would govern the solution of the problem. After that, the fewer decisions made in the course of completing the work, the better. This eliminates the arbitrary, the capricious, and the subjective as much as possible...It is best that the basic unit be deliberately uninteresting so that it may more easily become an intrinsic part of the entire work...Using a simple form repeatedly narrows the field of the work and concentrates the intensity to the arrangement of the form.²⁸

²⁴ Richard Serra, ‘Article written for MacDowell Medal Award Ceremony in Honour of Steve Reich (2005)’, <<http://www.steverreich.com>> [accessed 29/04/10].

²⁵ Anne Teresa de Keersmaeker, ‘Answers from Steve Reich’ (2008), <<http://www.steverreich.com>> [accessed 29.04.10].

²⁶ Steve Reich, ‘Excerpts from an Interview in *Artforum*, 1972’, in: Reich, *Writings*, 33.

²⁷ Sol LeWitt, ‘Paragraphs on Conceptual Art’ (June 1967) and ‘Sentences on Conceptual Art’ (May 1969), <http://www.ddooss.org/articulos/idiomas/Sol_Lewitt.htm> [accessed 10.11.10].

²⁸ LeWitt, ‘Paragraphs on Conceptual Art’.

Additionally, the following from LeWitt's 'Sentences' seems to provide an echo of Reich's theoretical position as outlined in 'Music as a Gradual Process':

7) The artist's will is secondary to the process he initiates from idea to completion.

28) Once the idea of the piece is established in the artist's mind and the final form is decided, the process is carried out blindly. There are many side effects that the artist cannot imagine.

29) The process is mechanical and should not be tampered with. It should run its course.²⁹

There is a striking similarity in both concept and language between the theoretical posturing of LeWitt and Reich: a constructive 'idea' being similar to a machine; allowing processes to run their course untampered from an initial premise; and the repetition of small units in order to focus attention on form. This was noticed by Michael Nyman, who quizzed Reich on the subject during a 1976 interview for *Studio International*.³⁰ Reich, however, says that he wasn't aware of LeWitt's 'Paragraphs' whilst writing 'Music as a Gradual Process'. Bearing in mind the comments made by Reich and Serra about the cohesion of the downtown group at this point, it would be naïve to assume Reich wrote the essay 'in complete isolation', as he states.³¹ The various responses Reich gives to questions regarding a shared aesthetic foundation with LeWitt actually serve to reveal the dissimilarity between what he affirmed in the essay and his compositional practice. In 1968, Reich proposed that 'once the process is set up and loaded it runs by itself', which Nyman compares with LeWitt's phrase 'the execution is a perfunctory affair'. Reich responds by arguing that 'execution is hardly a perfunctory affair and never has been in my music...my decisions weren't all made beforehand...[and every] piece of mine has some aesthetic decision in it'.³² Thus, we might conclude, Reich smoothed over some of the more involved or subjective elements of his methodology in the essay in an attempt to portray an impersonal, process-based aesthetic with a greater similarity to that of the plastic arts; he was never a true conceptualist, as his processes were predominantly a means to an end rather than concepts to be grasped on their own terms. In spite of these dissimilarities in creative execution between LeWitt and Reich, there were

²⁹ LeWitt, 'Sentences on Conceptual Art'.

³⁰ 'Second Interview with Michael Nyman (1976)', in: Reich, *Writings*, 91–7.

³¹ *Ibid.*, 91.

³² *Ibid.*, 92.

definite shared commitments in their writings: they both evidently wished to limit the part played by chance and downplay devices associated with personal expression, thereby undermining the traditional status of the artist as purveyor of personality.

During the essay, Reich argued for the possibility of a new kind of listening experience if one approached his music with sustained attention:

While performing and listening to gradual musical processes, one can participate in a particular liberating and impersonal kind of ritual. Focusing in on the musical process makes possible that shift of attention away from *he* and *she* and *you* and *me* outward toward *it*.³³

This could be seen to invoke a kind of ‘Orientalist’ ritual tied to (flawed) Western perceptions of Eastern spiritual ‘liberation’ during the period – an interpretation which picks up on ‘countercultural’ engagement with the Other as a way to evade socio-political norms, as well as John Cage’s philosophy filtered through the teachings of D. T. Suzuki and Ananda K. Coomaraswamy.³⁴ Reich goes no further in this direction during the essay; instead, he links this impersonality in reception to the details of his tightly-controlled process-generated sounds ‘moving out away from [composerly] intentions’.³⁵ This suggests another subtextual connection to Cage: in the 1957 essay ‘Experimental Music’ he had suggested that ‘those involved with the composition of experimental music find ways and means to remove themselves from the activities of the sounds they make’.³⁶ Although Reich makes it clear that his practice differs audibly from Cage’s, there is evident admiration for his ideas lurking behind the prose – especially in relation to an ostensible limiting of the Western composer’s impulse toward indulgent self-expression.

A crucial aspect of the restricting of subjective intervention during composition involved control of material: if material is tightly controlled through a rigorous process, the composer would be effectively ‘liberated’ from having to make

³³ Reich, ‘Music as a Gradual Process’, 36.

³⁴ See: David W. Patterson, ‘Cage and Asia: History and Sources’, in: David Nicholls (ed.), *The Cambridge Companion to John Cage* (Cambridge: Cambridge University Press, 2002), and Sumanth Gopinath, ‘Contraband Children: The Politics of Race and Liberation in the Music of Steve Reich 1965–1966’ (Ph.D. dissertation, Yale University, 2005).

³⁵ Reich, ‘Music as a Gradual Process’, 35.

³⁶ ‘Experimental Music’ (1957), in: John Cage, *Silence: Lectures and Writings* (1968; London: Marion Boyars, 2006), 10.

detailed aesthetic decisions on a note-by-note basis. In the essay, Reich sums up his ideas on the matter:

Musical processes can give one a direct contact with the impersonal and also a kind of complete control, and one doesn't always think of the impersonal and complete control as going together. By 'a kind' of complete control, I mean that by running this material through this process I completely control all that results, but also that I accept all that results without changes.³⁷

This passage seems to allude quite clearly to Cage's manner of distancing himself from the sonic unfolding of a work by employing indeterminate processes and accepting their results. The outcome of this, Lydia Goehr argues, was that Cage opposed an aesthetic claim 'that binds composers to their works via the relation of expression' and, as a corollary, direct personal intention.³⁸ But as we have seen, Reich refused to align his practice with Cage's, despite their similarities, because the results were not aurally relatable to the original process.

Reich's position on the audibility of devices was set out as follows:

What I'm interested in is a compositional process and a sounding music that are one and the same thing...I don't know any secrets of structure that you can't hear...The use of hidden structural devices in music never appealed to me.³⁹

Sumanth Gopinath proposes that perhaps implied by Reich's comments is 'political opposition to the hidden aspects of structure as the System'.⁴⁰ This interpretation is particularly fitting as 1968 was a year of explosive student protests against the powers that were. Reich's statements could therefore be seen to share in a 'countercultural' opposition to authoritarian or oppressive aspects of post-War American society, as well as reflecting zeitgeist paranoia over secrecy and Cold War espionage. However, his advocacy of a practice which celebrated 'impersonality' in relation to 'complete control' complicates this superficial New Left picture. Furthermore, implicitly characterising Cage's processes as a manifestation of the System simply because they are inaudible misses a crucial point. By being clear in the way he constructed his indeterminate works, Cage effectively invited listeners to acknowledge that they too

³⁷ Reich, 'Music as a Gradual Process', 35.

³⁸ Lydia Goehr, *The Imaginary Museum of Musical Works: An Essay in the Philosophy of Music* (Oxford: Oxford University Press, 2007), 263.

³⁹ Reich, 'Music as a Gradual Process', 35.

⁴⁰ Gopinath, 'Contraband Children', 61.

could have composed the piece using his method: the mechanism is overt, contingent, and democratic. The ‘code’ is straightforward and the composer’s workings are available and easily reproducible rather than being esoteric or concealed. This is encapsulated by the student’s baffled but astute observation at the end of Cage’s 1955 essay ‘Experimental Music: Doctrine’: ‘but, seriously, if this is what music is, I could write it as well as you’.⁴¹ Approached from a similar perspective, Reich’s processes have the potential to be aligned with this model of egalitarian composition. If the only input required was the presentation of some basic material along with an initial mechanical premise – out of which would grow the structure and content of an entire piece – then anyone could be a composer and the music would metaphorically empower the citizenry like democracy, assigning equal status to all members of society and enacting an ‘American’ music free from any European restraint.⁴² Whilst not stretching as far as Cage’s techniques of indeterminacy, this conception would seem to place value on the integrity of a process rather than on its (intentional or aesthetic) outcome. However, despite certain superficial similarities between Cageian practice and Reich’s ideas, the methods Reich actually used to compose his pieces placed far more emphasis on the ‘authored’ outcome than on the process itself. As we have seen in relation to the plastic arts, Reich’s theoretical ambitions for process music and his compositional practice cannot easily be reconciled.

Nevertheless, the desire to bear aspects of a work’s generative devices seems to bind Reich to a Cageian position during this period. In a 1972 interview for *Artforum*, whilst attempting to clarify his relationship to Cage, Reich revealed an illuminating, if paradoxical, aspect of his own compositional practice which wasn’t apparent in the more tersely-worded 1968 polemic:

Where [Cage] was willing to keep his musical sensibility out of his own music, I was not. What I wanted to do was to come up with a piece of music that I loved intensely, that was *completely personal*, exactly what I wanted in every detail, but that was arrived at by impersonal means.⁴³

It seems that Reich wished to have it both ways: to construct an impersonal process which would simultaneously generate a uniquely ‘authored’ piece of music. His

⁴¹ ‘Experimental Music: Doctrine’ (1955), in: Cage, *Silence*, 17.

⁴² See: William Brooks, ‘Music in America: an Overview (Part 2)’, in: Nicholls (ed.), *The Cambridge History of American Music*.

⁴³ ‘Excerpts from an interview in *Artforum*’ (1972), in: Reich, *Writings*, 33 [my emphasis].

project of ego-repression through accepting the results of a process was evidently only ever a means to an end – that end being the creation of works which bore the expressive stamp of their creator in the traditional Western sense. We must therefore question the extent to which ‘Music as a Gradual Process’ is useful as a commentary on his work up to 1968. For example, the idea that ‘once the process is set up and loaded it runs by itself’ is clearly deceptive.⁴⁴ The vast majority of Reich’s pieces do not represent a single, uninterrupted process which proceeds of its own accord. Tape works such as *It’s Gonna Rain* involve a multitude of complex aesthetic decisions and physical input: the supply reel of one tape recorder needed to be manually slowed at each stage in order to create the phase-shifting canons; the multiplication of voices which occur at specific stages did not happen by chance; the splicing and sampling found in the piece are not systematic. Furthermore, live works such as *Piano Phase* contain planned harmonic sections which involve the phasing of different units and are reliant on skilled performers to sustain momentum and create the shifts.

All except one of Reich’s process works from this period involve the manipulation of process-based elements to achieve their final form: elements of traditional control in the guise of aesthetic and practical decisions are slipped in under the ideological veil of process neutrality. In his preface to the 1974 edition of his *Writings on Music*, Reich quite clearly states that ‘although there is always a system working itself out in my music, there would be no interest in the music if it were merely systematic’.⁴⁵ One might therefore argue that such works contain the very ‘secrets of structure’ that Reich seemed to be averse to in 1968. In many ways, he maintained quite conventional authority over both his materials and the progress of the generative machinery employed; the use of strict process to apparently displace explicit aesthetic or personal concerns effectively allowed those very concerns to creep back into the music almost unnoticed. Perhaps it is more profitable to view Reich’s essay as a manifestation of his desire to align aspects of his music with the nascent Process art aesthetic for various pragmatic reasons related to exposure and notoriety rather than, as he says, ‘to clarify for myself what I was doing’.⁴⁶ The fact that galleries were his primary performing venue at this point would have made him

⁴⁴ Reich, ‘Music as a Gradual Process’, 34.

⁴⁵ ‘Author’s Preface’ (1974), in: Reich, *Writings*, x.

⁴⁶ Quoted in Paul Hillier’s introduction to ‘Music as a Gradual Process’, 34.

keen to make new contacts uptown. The only piece in Reich's output which actually embraces the aesthetic of the essay is *Pendulum Music* – a work which is effectively a one-off performative demonstration of his theoretical ideas.

Pendulum Music

During August 1968, while visiting Boulder, Colorado, to collaborate with the artist William T. Wiley on a kind of 'happening', Reich conceived of a process piece involving microphones, amplifiers, and loudspeakers.⁴⁷ It apparently occurred to the composer as he was playing around with an old Wollensack tape recorder in a room with Wiley and his student Bruce Nauman. Reich describes the event as follows:

I was holding the microphone, which was plugged into the back of the machine so it could record. The speaker was turned up. Being out West, I let it swing back and forth like a lasso. As it passed by the speaker of the machine, it went 'whoop!' and then it went away. We were all laughing at this and the idea popped into my mind that if you had two or three of these machines, you could have this audible sculpture phase piece.⁴⁸

Acting the part of an electro-cowboy, Reich seemed to have accidentally arrived at the idea of using electronic feedback for a composition. By rationalising and quantising the parameters of this discovery he created the possibility for what he has described as 'the ultimate process piece'.⁴⁹ *Pendulum Music* functions as a limit case or test for Reich's theoretical posturing and is unique among his oeuvre in that the process it sets in motion is neither logically controlled nor reliant on perpetual human intervention. It is effectively a micro-instillation or a piece of audio-kinetic sculpture and thus seems to have much more in common with the plastic arts than with his other more tightly controlled phase-shifting works. This view is corroborated by the fact that Reich intends the setup to be a plastic entity: 'I always set [it] up quite clearly as sculpture. It was very important that the speakers be laid flat on the floor, which is obviously not usual in concerts'.⁵⁰ Figure 1.3 shows what Reich had in mind. In its unabashed embrace of (real-time) chance, it bears strong resemblance to Cage's aesthetics of indeterminacy, and Reich himself has come to acknowledge this: in a

⁴⁷ See: Jason Gross, 'Interview with Steve Reich (April 2000)', *Perfect Sound Forever Online Music Magazine* <<http://www.furious.com/perfect>> [accessed 02.07.10].

⁴⁸ *Ibid.*

⁴⁹ *Ibid.*

⁵⁰ 'Second Interview with Michael Nyman', in: Reich, *Writings*, 95.

2000 interview he states that the piece is ‘me making my peace with Cage’.⁵¹ Nevertheless, there is still a strong element of intended, gradual, audible process – having a manifestly visual attraction, the piece actually highlights Reich’s desire for his processes to be perceptible. However, in its allowance of essentially random, non-controlled phasing patterns, the piece is a category exception in Reich’s output and something he never attempted again.

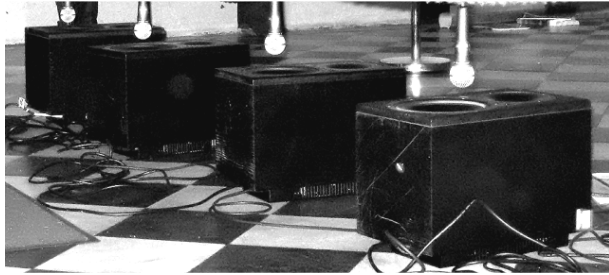


Figure 1.3: Kinetic installation for a performance of *Pendulum Music*, Belfast 2005. <www.flickr.com> courtesy of 'cfans / Cav'

The score, which consists of four short paragraphs of written performance instructions, begins as follows:

2, 3, 4, or more microphones are suspended from the ceiling by their cables so that they all hang the same distance from the floor and are all free to swing in a pendulum motion. Each microphone cable is plugged into an amplifier which is connected to a speaker. Each microphone hangs a few inches directly above or next to its speaker.⁵²

Performers are then instructed to set the suspended microphones in motion by pulling them back and releasing them simultaneously. A series of feedback pulses are produced, ‘which will either be all in unison or not depending on the gradually changing phase relations of the different mike pendulums’, as the microphones swing in front of their respective speakers (the volume being set beforehand to ensure the correct levels).⁵³ The score notes that performers ‘then sit down to watch and listen to the process along with the audience’.⁵⁴ The piece ends after all the microphones are producing a continuous feedback drone as they come to rest – performers are instructed to pull out the amplifier power cables to finish.

⁵¹ Gross, ‘Interview with Steve Reich’.

⁵² Steve Reich, *Pendulum Music* (1968), Universal Edition 16155. The score can also be found in: Reich, *Writings*, 32.

⁵³ *Ibid.*

⁵⁴ *Ibid.*

After being performed at the event with Wiley in Colorado (in a two-microphone version), *Pendulum Music* was presented at the Whitney museum in 1969 as part of the ‘Anti-Illusion: Procedures / Materials’ exhibition; there, it seemed to distil the scene in a distinctive way. As Reich noted, ‘in my early days, I was involved with a lot of visual artists and the context for my work was art galleries and museums; this was definitely such a piece’.⁵⁵ This second concert involved four performers (with four microphones) and Reich as engineer / director. Bruce Nauman, Michael Snow, Richard Serra, and James Tenney all released their microphones for a ten-minute version of the piece which Reich has actually described in retrospect as being ‘a little too long’.⁵⁶ Donald Henahan, music critic for the *New York Times*, seemed to concur: ‘it was, if you will, as much fun as watching a pendulum’.⁵⁷ Serra, an artist known for his process-based manipulation of lead and for his giant sheet-metal sculptures, argued that the Whitney show ‘summed up the activities of the moment, and confirmed this group as a movement’.⁵⁸ Writing in 2005, he also proposed that ‘one could call *Pendulum Music* a paradigm for Process art’.⁵⁹

During the 1976 interview with Michael Nyman, Reich is questioned about *Pendulum Music*: he asserts that the piece is ‘strictly physical’ and was intentionally didactic in terms of the process idea.⁶⁰ He also expresses a preference for performances which use ‘small, inexpensive loudspeakers’ due to the resulting ‘series of bird calls’ (rather than ‘hi-fi shrieks’) which can be produced.⁶¹ As the piece appears designed to frustrate conventional musicological tools by refusing to grant ontological ascendancy to a reified score which can be subject to pre-determined modes of analysis, I wish briefly to survey a number of commercially-available recordings. This represents an interpretative act in itself, as well as a miniature (and necessarily incomplete) study of reception through performance. Reich was not interested in recording the piece himself during the late 1960s and has never released an ‘authorised’ version, perhaps because of the necessarily indeterminate results and

⁵⁵ Gross, ‘Interview with Steve Reich’.

⁵⁶ *Ibid.* See: Reich, *Writings*, 30–1 for a photograph of this performance (by Richard Landry).

⁵⁷ Henahan, Donald, ‘Repetition, Electronically Aided, Dominates Music of Steve Reich’, *New York Times* (28 May 1969), 37.

⁵⁸ Serra, ‘Article for MacDowell Medal Award Ceremony’.

⁵⁹ *Ibid.*

⁶⁰ ‘Second Interview with Michael Nyman’, 95.

⁶¹ *Ibid.*

its status as a sculptural installation.⁶² There are three notable CD albums which contain five different versions of *Pendulum Music*: three by Leipzig-based Ensemble Avantgarde (WERGO 6630-2, 1999), one by New York alternative-rock band Sonic Youth on *Goodbye 20th Century* (SYR 4, 1999), and one by German-born musician Ulrich Krieger on *Early American Minimalism* (Sub Rosa 218, 2007).

Reich has expressed admiration for Ensemble Avantgarde's versions, noting how 'the pitch content becomes kind of a phase piece' in itself; he has also praised the fact that they present three different versions to show the range of possible outcomes.⁶³ All three of these versions are for four microphones and take between four and six minutes to come to rest. Up to four distinct pitches are created by the individual microphones, related to the height at which each is released and its resulting velocity. This lends each performance a feeling of limited repetitive aleatoricism; all, however, end with a low-pitched variegated drone. The same setup is used each time and the different versions thereby demonstrate the diversity which can be achieved within the piece's seemingly prescriptive framework. The Sonic Youth version is more abrasive and much freer: rather than gradual entropic process, we hear nearly six minutes of kaleidoscopic feedback containing radically different frequencies – some acting as low-pitched drones from the outset, others coming and going at much higher pitches reminiscent of overblown recorders. It is Punk Process art: deliberately grating, it relishes the affrontational quality of feedback screams created by guitars left too close to amplifiers. Here, Sonic Youth are the feature, not perceptible process and the piece relinquishes its impersonality to be filled with anarchic expression. Their version represents a radical interpretation which pays little heed to the score but nevertheless does manage to create a fascinatingly charged and dizzying atmosphere, perhaps reminiscent of Reich's story of the initial idea for the piece. Krieger's version is the longest, at around 7:28, and the one to utilize the lowest final drone. The microphones create similar-frequency pulses, letting the rhythmic aspect come to the fore – regular pulsing of breath-like sounds highlighting the gradual, process-based change. These diverse recordings provide a key demonstration of the latitude available within such a seemingly 'objective' process and the ability of idiosyncrasies to become manifest.

⁶² See: Gross, 'Interview with Steve Reich'.

⁶³ *Ibid.*

Minimal Art

As well as being involved in the Process art scene, Reich was associated quite closely with the Park Place Gallery during this time – the lively ‘off-off-Madison-Avenue out-post of “minimal”, “pure”, or “systemic” art’, according to one contemporary critic.⁶⁴ In an interview with William Duckworth, Reich describes how this came about after he moved back to New York in September of 1965:

I was not very much in touch with composers of the type that would be doing new music...So I waited until something came along. What came along was a group of painters and sculptors who had a gallery that everybody liked to go to, and they invited me to do a concert there.⁶⁵

Originally founded in 1963 as an informal, cooperative exhibition space at 79 Park Place in downtown Manhattan, the gallery was associated with a particular group of artists, most of whom were from the West Coast: Anthony Magar, Mark di Suvero, Forrest Myers, Tamara Melcher, Robert Grosvenor, Leo Valledor, Dean Fleming, Peter Forakis, and Edwin Ruda.⁶⁶ In October 1965 the group moved into a large new space, financially supported by collectors but still not-for-profit, at 542 West Broadway, named ‘Park Pace, The Gallery of Art Research Inc.’ – a title which underscored their spirit of experimentation and represented the emergence of a prosperous new era in American art. Paul Cooper took over as director of the gallery after John Gibson’s departure in May 1966.

Reich has dubbed the Park Place ‘the hub of Minimal art’.⁶⁷ However, the distinctive stance of the artists which formed this collective needs distinguishing from other similar trends and hubs in New York, such as the uptown Green Gallery run by Richard Bellamy. The ‘Park Placers’, in contrast, were somewhat peripheral figures, their aesthetic tending to oppose the more austere, undynamic, and reductive aspects

⁶⁴ Grace Glueck, ‘The Park Place Puts on a Stunner’, *New York Times* (11 March 1967), 25.

⁶⁵ William Duckworth, *Talking Music: Conversations with John Cage, Philip Glass, Laurie Anderson, and Five Generations of American Experimental Composers* (New York: Da Capo Press, 1999), 299.

⁶⁶ See: Liza Kirwin, ‘Art and Space: Park Place and the Beginning of the Paula Cooper Gallery’, <<http://www.aaa.si.edu>> [accessed 13.11.10], and ‘History of the Park Place Group’, <<http://www.finearts.utexas.edu>> [accessed 01.09.10]. The Blanton Museum of Art at the University of Texas produced a retrospective show in 2008 entitled ‘Reimagining Space: The Park Place Gallery Group in 1960s New York’, curated by Linda Dalrymple-Henderson and David Bruton, Jr.

⁶⁷ Duckworth, *Talking Music*, 299.

which would come to characterise the Minimalist rubric. Art historian James Meyer notes that whereas some artists tended to conceal subject matter behind impassive facades, ‘the Park Placers used allusive shapes that pointed beyond the material object’.⁶⁸ The resulting paintings and sculptures were essentially abstract, but frequently contained dynamic, geometric elements and vibrant ‘West Coast’ colour palettes, achieving optical tensions and mirroring aspects of urban architecture. Figures 1.4 and 1.5 show works by two artists affiliated with the gallery during this period. The Park Place was also known for exhibiting works on shaped canvases – objects which blurred the boundaries between painting and sculpture in a deliberate rejection of pictorial illusion.⁶⁹ Despite their particular anti-ascetic stance, the Park Place sponsored invitational shows featuring the work of other artists, such as Carl Andre, Robert Smithson, and Sol LeWitt; perhaps this was where Reich first came into contact with LeWitt’s theoretical ideas. In addition to these shows, the gallery was intended to be a space for free intellectual and artistic exchange, screening experimental films and housing performances of new music.

Figure 1.4 (right): *The ‘A’ Train* (1965–67) by Mark Di Suvero, wood and painted steel
<<http://blantonmuseum.org>>

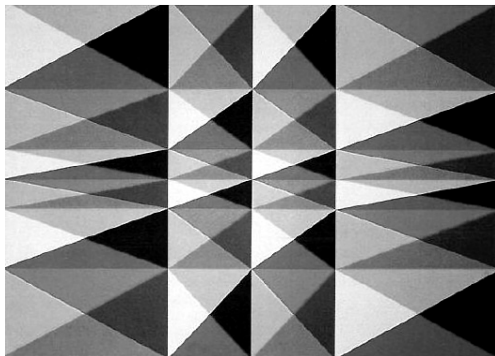


Figure 1.5 (above): *Lime Line* (1965) by Dean Fleming, acrylic on canvas
<<http://blantonmuseum.org>>



⁶⁸ James Meyer, *Minimalism: Art and Polemics in the Sixties* (New Haven: Yale University Press, 2001), 20–1.

⁶⁹ See: Frances Colpitt, ‘The Shape of Painting in the 1960s’, *Art Journal*, Vol. 50/1 (Spring 1991), 52–6.

It was here that Reich presented some of his early compositions – including the recently-composed tape work *Melodica* – in June 1966. This was followed, in March 1967, by three longer programmes featuring a performing ensemble of Reich, Jon Gibson, Art Murphy, James Tenney, and Phil Corner. These concerts involved a four-Cembalet version of *Piano Phase* entitled *Four Pianos*, as well as *Saxophone Phase* (later renamed *Reed Phase*), *Improvisations on a Watermelon*, and some tape pieces. Reich considered the events to be ‘pivotal’ in the dissemination of his music in New York.⁷⁰ In her review of the show, *New York Times* critic Grace Glueck described how the curators had ‘ingeniously deployed the work of three artists – Dean Fleming, Charles Ross, and Jerry Foyster – in a sort of architectural environment set to sound effects...by Steve Reich’.⁷¹ Glueck argued that *Melodica* appeared ‘just as modular as the art’, lending the event an elegant overall coherence; for her, the various aspects functioned to ‘lend one another a weight and presence that they could not achieve separately’.⁷² With listeners ‘sprawled on the floor’, according to the *Village Voice*’s Carman Moore, this informal event provided Reich with an open-minded audience sympathetic to his ideas and a performance environment which helped contextualise his work within a fashionable artistic practice.⁷³ As musicologist Keith Potter argues, ‘the personal and aesthetic connections he made with the art world in the 1960s allowed Reich access to art galleries as performance spaces long before he became accepted in Western Classical music circles’.⁷⁴ The debates in the plastic arts surrounding Reich provided the context for the reception of his work during this period. Confronting these polemics will help demonstrate the plurality of interpenetrating and often conflicting ideas which coalesced around the nascent movement and thus help to problematise the idea of a unified aesthetic.

James Meyer offers a cautious definition of the style’s associations, bearing in mind the fact that such an act represents an *ex-post-facto* affirmation, often dismissed by practitioners at the time:

⁷⁰ See: Duckworth, *Talking Music*, 299; and Reich, *Writings*, 79.

⁷¹ Glueck, ‘The Park Place Puts on a Stunner’.

⁷² *Ibid.*

⁷³ Carman Moore, ‘Park Place Pianos’, *The Village Voice*, Vol. 12/23 (23 March 1967), 15.

⁷⁴ Keith Potter, *Four Musical Minimalists: La Monte Young, Terry Riley, Steve Reich, Philip Glass* (Cambridge: Cambridge University Press, 2002), 174.

Although never exactly defined, the term 'Minimalism' (or 'Minimal art') denotes an avant-garde style that emerged in New York and Los Angeles during the 1960s, most often associated with the work of Carl Andre, Dan Flavin, Donald Judd, Sol LeWitt and Robert Morris...Primarily sculpture, Minimal Art tends to consist of single or repeated geometric forms. Industrially produced or built by skilled workers following the artist's instructions, it removes any trace of emotion or intuitive decision-making...Minimal work does not allude to anything beyond its literal presence, or its existence in the physical world. Materials appear as materials; colour (if used at all) is non-referential. Often placed in walls, in corners, or directly on the floor, it is an installation art that reveals the gallery as an actual place, rendering the viewer conscious of moving through this space.⁷⁵

Although the artists mentioned refused to subscribe to any kind of consistent or shared theoretical framework, certain features of the work they began producing in the mid-to-late-1960s had a similar aesthetic. The features which pointed toward such a conclusion included: a transition from skilled artisanal production to the mechanised production of objects via an artist's designs (reflecting a 'minimum' of artistic labour and a desire to remove the artist's 'touch'); an embrace of the innate properties of basic materials in a non-mimetic fashion coinciding with an interest in elemental perceptual forms and the experience of empirical reality; an overt demonstration of the method or process of construction, often through the placement of elements in a geometric or serial manner; and the desire to eradicate such factors as narrative and traditional evidence of creative personality.⁷⁶ The prominence of sculpture in this aesthetic perhaps reflected a wish to move away from certain 'illusionistic' aspects of two-dimensional painting and present art objects as objects, revealing the contingency of perception and fostering somatic awareness. A key show in this regard was 'Primary Structures: Younger American and British Sculpture' curated by Kynaston

Figure 1.6: the dramatic Gallery 5 in 'Primary Structures: Younger American and British Sculpture'. A view (left to right) of works by Donald Judd, Robert Morris, and Robert Grosvenor. <www.radford.edu>



⁷⁵ James Meyer, *Minimalism* (London: Phaidon, 2005) [Themes & Movements], 15.

⁷⁶ See: 'Minimalism', in: *The Oxford Dictionary of American Art and Artists*.

McShine at the Jewish Museum, New York, in spring 1966.⁷⁷ A definitive show, it served to broadcast the emergence of this new style to a wider public via its survey of contemporary sculpture. Such shows made it clear that among young artists bent on separating themselves from ‘the heroic individualism of Abstract Expressionism’, impersonal visual modalities had come to the fore.⁷⁸

However, as Meyer is also keen to point out, ‘all of the artists associated with Minimalism rejected the idea that theirs was a coherent movement’.⁷⁹ Instead, there existed a number of concurrent, subtly overlapping, but often divergent ‘minimalisms’ during the period – artists neither shared a formal identity nor a common understanding. It is a fallacy, he argues, that there was ever a distinct practice or aesthetic which was endorsed; it is only through retrospective criticism that a canon-forming discourse arose which collated the work of certain artists under a neat art-historical rubric. Meyer asserts that ‘minimalism was a shifting signifier whose meanings altered depending on the moment or context of its use’.⁸⁰ Minimalism can therefore be reinstated as part of a heterogenous field of debates which developed in response to certain cultural practices emerging during the 1960s. A more helpful and historically accurate appraisal, he concludes, would view Minimalism ‘not as a movement with a coherent platform, but as a field of contiguity and conflict, of proximity and difference...a dynamic field of specific practices’.⁸¹ Meyer is not alone in his advocacy of this position: Anna C. Chave also argues that where the identity of Minimalism is concerned ‘there can be no indelible ink and no orthodoxy’, simply ‘different discursive configurations describing differing movements’.⁸²

A number of Process art’s conceptual foundations are entwined within this inclusive Minimalist aesthetic: heightened interest in the specific, non-metaphoric properties of materials; overt demonstration of the method of construction or deployment; and distanced subjectivity. However, Cornelia H. Butler argues,

⁷⁷ For an excellent discursive and visual ‘tour’ of this landmark zeitgeist exhibition see: Meyer, *Minimalism: Art and Polemics in the Sixties*, 12–30.

⁷⁸ Anna C. Chave, ‘Minimalism and Biography’, *The Art Bulletin*, Vol. 82/1 (March 2000), 151.

⁷⁹ Meyer, *Minimalism*, 16.

⁸⁰ James Meyer, *Minimalism: Art and Polemics in the Sixties* (New Haven: Yale University Press, 2001), 3.

⁸¹ *Ibid.*, 4.

⁸² Chave, ‘Minimalism and Biography’, 149.

Minimalism's fixed geometrics 'were countered, in every way, by [Process art's] low lying, floor hugging, non-hierarchical accretions bound in an anti-illusionistic, non-pictorial way by the contingencies of the materials'.⁸³ While Minimalist forms tended to flaunt their static exteriority through industrially-fabricated or impersonal skins, works of Process art existed in a state of fluid intermediacy, not able to be mechanically reproduced. With Process art, Butler concludes, the actions on display were effectively 'an extension of the work in the studio'.⁸⁴ Carman Moore saw this as a distinctive feature of Reich's early music: during a review of Paul Zukofsky's interpretation of *Violin Phase* in 1969, he argued that 'the aesthetic of this style of music seems to involve the transporting of the compositional laboratory process to the stage'.⁸⁵ In this sense, Process art's aesthetics seemed to suit the innately temporal art of music in a way that other movements in the plastic arts could not. Differences might be summarised as concerning entropy: works associated with the Process art movement actively celebrated their own inevitable flux whereas works labelled as Minimalist often tended toward the inertly impervious object or series. This interpretation sparked a Marcusean critique concerning its reflection of the System and submission to capitalist enterprise, as well as a negative reception abroad related to anti-American sentiment in Europe.⁸⁶

Due to the intentional purging of mimesis, narrative, and authorial feeling, Minimal works resisted conventional methods of explanation based on the idea of 'content' which needed to be 'interpreted' by the critic as intermediary. Susan Sontag had picked up on this intentional deconstruction of the traditional tripartite structure of dissemination; in her 1964 essay 'Against Interpretation', she provided a theoretical platform for this literalist position and advocated a sympathetic critical practice based on description. She called for an 'erotics of art' – a critical response which would abandon interpretation in reception as a response to stifling hermeneutics.⁸⁷ She proposed that artists could 'elude the interpreters...by making works of art whose surface is so unified and clean, whose momentum is so rapid,

⁸³ Butler, 'Ends & Means', 94.

⁸⁴ *Ibid.*, 86.

⁸⁵ Carman Moore, 'Zukofsky', *The Village Voice*, Vol. 14/29 (1 May 1969), 28.

⁸⁶ See: Meyer, *Minimalism: Art and Polemics in the Sixties* (Chapter 8).

⁸⁷ Susan Sontag, 'Against Interpretation' (1964), in: Sontag, *Against Interpretation and Other Essays* (1966; New York: Octagon Books, 1978), 14.

whose address is so direct that the work can be...just what it is'.⁸⁸ In spite of Sontag's entreaty, however, various interpretations of the new stripped-down style did emerge. Art magazines, well educated and competitive artists, and the growing commercial gallery system fostered a demand, as well as the resources, for lively criticism. One notable example was Barbara Rose's essay 'A B C Art', published in *Art in America* during autumn 1965. It was one of the first major interdisciplinary studies to offer a classification of the (rather disparate) style and provide historic and aesthetic contextualization, drawing together a number of philosophical justifications.⁸⁹ Rose applied the term Minimal art to 'the empty, repetitious, uninflected art of many young painters, sculptors, dancers, and composers working now'.⁹⁰ Not by their mutual consent, but by what she felt was a shared aesthetic concern founded upon a critical stance toward the loose painterliness and clear record of gesture found in Abstract Expressionism. She built upon philosopher Richard Wollheim's argument outlined in his essay 'Minimal Art', published earlier that year.⁹¹ Wollheim had proposed that aesthetic decisions by an artist – whether constructive or deconstructive – formed a fundamental part of the 'work' in a work of art. According to his theory, so-called 'Minimal' art was an example of conscious decisions by artists to strip back layers of signification rather than adding them.

Rose briefly touched upon music during her essay and suggested that composers working within this field of reduction 'are all, to a greater or lesser degree, indebted to John Cage' – a conclusion supported by links to the notion of downplayed personality.⁹² The reaction in music that paralleled that in the visual arts (against Abstract Expressionism) could be read as being against Expressionism and 12-tone serialism – an American reaction to Germanic domination of musical modernism and the heightened subjectivity found in the music of Schoenberg and Berg. Reich seems to agree that his music is quite deliberately removed from the high-modernist

⁸⁸ Sontag, 'Against Interpretation', 11.

⁸⁹ Barbara Rose, 'A B C Art' (1965), in: Gregory Battcock (ed.), *Minimal Art: A Critical Anthology* (1968; Berkeley: University of California Press, 1995), 274–97. Battcock's 1968 anthology represented a move toward canonization and consolidation of the 'Minimalist aesthetic'; in February of the same year the Whitney had mounted a Donald Judd retrospective which also seemed to represent a decisive change in the movement's relationship to the establishment.

⁹⁰ *Ibid.*, 277.

⁹¹ Richard Wollheim, 'Minimal Art', in: Battcock (ed.), *Minimal Art*, 387–99. Wollheim's essay was originally published in the January 1965 edition of *Arts Magazine*.

⁹² Rose, 'A B C Art', 278.

approach he came into contact with at university. In a 2006 interview for ITV's *The South Bank Show*, Reich states quite clearly:

This is *not* Europe, this is America! This is John Coltrane playing at the Jazz Workshop, there are hamburgers being sold, there's Motown on the radio. How can you pretend – in a world like that – that you're living in the dark brown angst of Vienna at the turn of the century?⁹³

Elsewhere, Reich has called the veneration of serialism in post-war American composition 'a musical *lie*', blindly missing out on the '*real* context of tail fins [and] Chuck Berry'.⁹⁴ For Reich, to continue composing in a similar vein to the European avant-garde was evidently untenable as it failed to take into account the cultural and socio-economic context in which he found himself. Clear hermeneutic windows such as systematic repetition and impersonal methods of reproduction may give clues as to the presence of deeper layers of meaning hidden behind Minimalism's mute exterior. This has led toward interpretations based on mass-mediated consumer society – a position hinted at by Rose: 'whereas the unusual and the exotic used to interest artists, now they tend to seek out the banal, the common, and the everyday'.⁹⁵

The concluding remarks of Rose's essay, however, drew an utterly different line of argument. She suggested that Minimalism was 'rather out of step with the screeching, blaring, spangled carnival of American life'.⁹⁶ For Rose, Pop art was the true reflection of post-War American society, whereas Minimalism was 'its antidote, even if it is a hard one to swallow'.⁹⁷ In this interpretation, Minimal art became a photographic negative of the surrounding culture, showing banal white where there was colour and silent reservation where there was noise: a critical remedy for a culture saturated with the repetitive over-production of signs. But what if Pop and Minimalism weren't opposites at all, but merely different levels of the same phenomena? In *Repeating Ourselves: American Minimal Music as Cultural Practice*, Robert Fink argues that if uninflected repetition is a remedy at all, it is a kind of 'homeopathic' rather than an 'allopathic' remedy and, in that sense, much easier to

⁹³ 'Steve Reich', *The South Bank Show* (Season 31/11), Matthew Tucker (Dir.), LWT 2006 [first broadcast ITV 1, 10 December 2006].

⁹⁴ In: Edward Strickland, *American Composers: Dialogues on Contemporary Music* (Indianapolis: Indiana University Press, 1991), 46 [emphasis in original].

⁹⁵ Rose, 'A B C Art', 293.

⁹⁶ *Ibid.*, 296.

⁹⁷ *Ibid.*, 297.

swallow than at first imagined.⁹⁸ It effectively functioned by reflecting back the very numbing repetition that was sent out via mass-mediated advertising and the phenomenology of post-industrial production. Reading Minimalism like this lends it a fundamental similarity to Pop Art: while works like those coming out of Andy Warhol's 'Factory' embraced an ironic take on the abundance of consumption and its manipulative control via the calculated repetition of slogans and icons, Minimalist work delved into the mechanisms of production and consumption themselves – the campaign rather than the single advert:

The move from Pop to Minimalism can thus be read not as a move away from the consumer society, but as a move deeper into it. Pop abstracts the signifier-drenched surface of commodity culture; Minimalism models...its underlying formal structure.⁹⁹

In other words, Pop represents engagement with the simulacra of culture whilst Minimalism takes on its abstract forms: the rationalised structures and the technology. Meyer, however, argues that this interpretation fails to take into account the complex dialectical nature of its relationship to society: a 'negation' in tandem with a reflection of its systematised commercial context. He nevertheless concedes that such practices 'could only have emerged within a culture of replication – the so-called consumer society – that these artists sought to resist.'¹⁰⁰

§

When approaching Reich's music of the late 1960s, it is clear that a discourse which focuses hermetically on 'the works themselves' misses out on crucial aspects of their performance and reception. The downtown (and later uptown) art scene in New York provided Reich with a supportive platform and discourse for disseminating his ideas on gradual musical process and his idiosyncratic phase-shifting pieces; this was complimented by an audience willing to experiment with new ways of listening and open to having their aesthetic commitment tested. Reich's work and theoretical output can be seen both to develop in response to what he experienced in the plastic arts, and also to be quite deliberately aligned with these fashionable tendencies in order to

⁹⁸ Robert Fink, *Repeating Ourselves: American Minimal Music as Cultural Practice* (Berkeley: University of California Press, 2005), 30.

⁹⁹ Fink, *Repeating Ourselves*, 74–5.

¹⁰⁰ Meyer, *Minimalism: Art and Polemics in the Sixties*, 184 (see: 184–8).

advance his career and construct a certain reputation. The distinctive context of the Park Place Gallery group and the more enigmatic Process art movement helped Reich to establish himself as a freelance composer with aesthetic links to crucial aspects of the zeitgeist. Situating the composer within these practices – even if his works didn't fit neatly into any particular category – allows access to debates and concepts on which musicology has been slow to pick up. His work problematises disciplinary boundaries and asks critics to take a broader look at cultural production across different media. Perhaps because of 'establishment' music's conservative inertia during this period, Tom Johnson argued, Reich was forced into an environment which 'thrived on novelty, understood what composers were doing, and had developed an extremely flexible format'.¹⁰¹ Howard Brick concurs, noting that the most salient trait of the visual arts in the 1960s 'was the rapid-fire emergence of new styles', each offering its own form of 'breakthrough'.¹⁰²



¹⁰¹ Tom Johnson, 'Experimental Music Takes a Trip to the Art World', *New York Times* (5 December 1976), 28.

¹⁰² Brick, *Age of Contradiction*, 172.

(2)

Racial Politics, Tape, and San Francisco's Cultural Nexus

[Marching to a Manhattan tempo...]

There is an ostensible conflict in Reich's work of the early 1960s between the 'academic' and the 'experimental'. Much has been made in interviews of his time as a postgraduate studying composition with Luciano Berio at Mills College. Reich, however, never really took to the serial method, preferring instead to create a sense of harmonic stasis through simple repetition of the tone row and to undermine its 'elite' status by writing for jazz combos – an approach manifest in his 1963 graduation exercise entitled *Four Pieces*, which was scored for trumpet, alto saxophone, piano, bass, and drums.¹ Among Reich's classmates at Mills were eager young composers Phil Lesh and Tom Constanten, who would both later perform in the Grateful Dead. Lesh was a volunteer at the Bay Area listener-sponsored radio station KPFA-FM and thus had access to the latest tapes of festival performances featuring works by the European avant garde.² Constanten remembers that the appearance of Berio in their own back yard at this time had 'an air of the miraculous about it'.³ He also notes how Reich was interested in pursuing a 'Third Stream improvisation sort of thing' in the Gunther Schuller / Lukas Foss vein – understandable, as the class had encountered them both at the Ojai Festival in May 1962.⁴ Like Reich, Constanten found Berio to be more traditional than he'd imagined; there seemed to be a conflict of interests in the class, in spite of the excitement of metaphorically 'being at the scene of the crime with one of the major criminals', as Reich has put it.⁵

¹ See: Keith Potter, *Four Musical Minimalists: La Monte Young, Terry Riley, Steve Reich, Philip Glass* (Cambridge: Cambridge University Press, 2002), 156–60; K. Robert Schwarz, *Minimalists* (London: Phaidon, 1996), 55–7; and Edward Strickland, *Minimalism: Origins* (Indianapolis: Indiana University Press, 2000), 182–4.

² Tom Constanten, *Between Rock & Hard Places: A Musical Autobiodysey* (Eugene: Hulogosi, 1992), 25.

³ *Ibid.*

⁴ *Ibid.*

⁵ Steve Reich quoted in: Schwarz, *Minimalists*, 56. Reich is referring to serialism. Constanten tells a humorous story of how his image of a radically subversive Berio was undermined:

Moving to the West Coast to escape his New York home and to seek fulfilment amidst the Beat ambience of San Francisco, Reich would no doubt have become aware of the city's growing cultural network. Prominent artistic organisations, such as the San Francisco Tape Music Center, the Actors Workshop, Canyon Cinema, the City Lights Bookstore, and the San Francisco Mime Troupe, were all active during this period, and Reich developed close connections with many of their leading figures. Reich's involvement in this scene perhaps grew from the Mime Troupe's *Event II* held at the Tape Music Center in early January 1963 – a radical theatrical happening consisting of two nude performers in mirrored boxes, narrative sound excerpts, and an audience looking down on the action covered in a large black cloth with head-holes cut out; both the artist William T. Wiley and Mime Troup founder R. G. Davis were involved.⁶ During its five-year existence, David W. Bernstein argues, the Tape Music Center 'provided an ideal environment for a significant interaction between the counterculture and the West Coast avant garde'.⁷ Gaining its name in summer 1962 (a year after being founded), and initially housed at 1537 Jones Street in an old Victorian Mansion on Russian Hill, the Tape Music Center was an autonomous and unaffiliated collective of radical composers – including Ramon Sender, Pauline Oliveros, Terry Riley, and Philip Winsor. The Center provided a studio with basic equipment (in comparison with studios like those of the Columbia-Princeton Electronic Music Center) and a venue for mixed-media performances. The next year, it moved to a more permanent location on 321 Divisadero Street, at the eastern end of Haight-Ashbury, and shared a building with KPFA and Anna Halprin's Dance Company. Whilst at this location, Bernstein argues, the Center evolved into 'the most prominent venue for experimental art in San Francisco'.⁸

I remember him pointing out a part of a student's composition and saying, "You should devil it up this here". I thought to myself, "Well, all right! Now we're out in the wild and woolly *avant garde!*" Later I found out that that was the way he pronounced the word 'develop'. [Constanten, *Between Rock & Hard Places*, 25–6].

⁶ See: R. G. Davis, *The San Francisco Mime Troupe: The First Ten Years* (Palo Alto: Ramparts Press, 1975), 24–5 & 197.

⁷ David W. Bernstein, 'Emerging Art Forms and the American Counterculture, 1961–1966', in: Bernstein (ed.), *The San Francisco Tape Music Center: 1960s Counterculture and the Avant-Garde* (Berkeley: University of California Press, 2008), 9.

⁸ *Ibid.*, 18.

Robert Nelson & the Mime Troupe

Shortly after he graduated from Mills College, Reich began working on a short film project with Robert Nelson – according to Scott MacDonald, ‘the avant garde cinema’s most potent comic filmmaker’.⁹ Nelson trained at the California School of Fine Arts and was an aspiring painter before taking up the camera as an amateur; a neighbour lent him equipment for what would become *Plastic Haircut* (1963) – a collaborative effort involving Davis, Wiley and the ‘Funk art’ sculptor Robert Hudson. It was shot in black and white with the tacit knowledge that with such avant-garde films ‘you could do anything you wanted’.¹⁰ The original film captured Davis (dressed as a kind of clown) cavorting with Wiley and Hudson’s props in a studio space; the result, according to Nelson, was ‘boring’ because it was so repetitive and long.¹¹ The answer came as he started to edit the shots shorter and shorter in desperation: ‘when I saw the energy that put into the film, I had my first real revelation about cutting’.¹² The final film ran for fifteen minutes and contained three distinct sections. The first presented a six-minute montage of surreal, fast-paced fragments (Davis’ improvisations, ink, moving objects, geometric shapes, bodies, and masks). The third section was the first one repeated, but with a voice-over in the form of a mock interview with a filmmaker: Davis questioned Nelson (who had assumed an Indian accent for no discernable reason) about the film’s symbolism and meaning. During the ‘interview’, the filmmaker claimed outright that no editing had taken place, that there was no phallic symbolism, and that he was influenced by the ‘Neo-Italian’ school; it is an absurdly comic self-parody of the avant garde and pokes fun at the desire to discern coherence or intention in the work.¹³

The three-minute middle section contained Reich’s sound collage over a black screen – chosen not for aesthetic effect, but because at the time Nelson didn’t know how to overlay the tape properly.¹⁴ The collage is a witty, fast-paced montage of

⁹ Scott MacDonald, ‘We were Bent on Having a Good Time: An Interview with Robert Nelson’, *Afterimage*, Vol. 11/1&2 (Summer 1983), 39.

¹⁰ *Ibid.*

¹¹ *Ibid.*

¹² *Ibid.*

¹³ The film has been preserved by the Pacific Film Archive and is available to view for free on the website *Art Babble* <<http://www.artbabble.org/video/plastic-haircut>> [accessed 13.08.10].

¹⁴ MacDonald, ‘We were Bent on Having a Good Time’, 39. Reich’s collage was placed over the opaque black leader, a material normally used in the negative cutting process.

American sports commentary, acting as an apt reflection of the preceding visual material. In a 1970 interview, Reich described its genesis as follows:

Somebody said he heard a sportscaster trying to narrate the action. So I got hold of a record called *The Greatest Moments in Sport* and made a collage of it in the most primitive of all ways. I'd record a bit, stop the tape, move the needle, and then start taping again...Formally it started very simple and turned into noise through over-dubbing with loops, rather like a surrealist rondo.¹⁵

What seemed to interest him were the hazy semantic remains of the voices themselves – something he did not wish to wipe away entirely – and their ‘authentic’ American dialect. It was the first tape piece he had composed, and its linguistic juxtapositions mirrored Nelson’s idiosyncratic cutting technique, manifesting the influence of the filmmaker. As a continuation of his absorption in this speech-collage aesthetic, Reich began surreptitiously recording passengers in the cab he was then driving to make a living: ‘I used to put a microphone up where the dome light is inside the cab, so I could bug the cab...I gathered a large amount of material’.¹⁶ He edited this mass of urban vernacular sound into a three-minute tape piece entitled *Livelihood* (1964), with a similar outcome to the sports collage piece. Despite not being mentioned in his ‘official’ list of works and not being commercially available (as the master tape was destroyed), *Livelihood* seems to have been one of the first pieces of Reich’s to reach a relatively wide audience. Alongside a number of appearances at the San Francisco Tape Music Center in 1965, it was played at Judson Hall in Greenwich Village, New York, in August of the same year.¹⁷ Reviewing that performance as part of an avant-garde concert, *New York Times* critic Richard Freed described it as an amusing, if rather insubstantial, ‘Dada-ish collage’.¹⁸

Plastic Haircut was shown at the Mime Troupe’s studio theatre in an abandoned church at 3450 Twentieth Street, at the corner of Capp Street, in San Francisco’s Mission District.¹⁹ Susan Vaneta Mason argues that the troupe was ‘in the vanguard of the alternative theatre movement in the United States’, defining key

¹⁵ Michael Nyman, ‘Steve Reich: An Interview with Michael Nyman’, *The Musical Times*, Vol. 112/1537 (March 1971), 230.

¹⁶ Steve Reich, *Writings on Music, 1965–2000* (Oxford: Oxford University Press, 2002), 11.

¹⁷ See Thomas M. Welsh’s ‘Chronology’, in: Bernstein (ed.), *The San Francisco Tape Music Center*.

¹⁸ Richard D. Freed, ‘Avant-Garde Gives Electronic Display’, *New York Times* (28 August 1965), 12.

¹⁹ See: Susan Vaneta Mason (ed.), *The San Francisco Mime Troupe Reader* (Ann Arbor: University of Michigan Press, 2005) and Davis, *The San Francisco Mime Troupe*.

aspects of the Bay Area's cultural life during the 1960s.²⁰ Founded in 1959 by R. G. Davis – an assistant director with the Actors Workshop who had studied modern dance, mime, and method acting – the troupe was intended as a New Leftist countercultural force for social change, aiming to entertain and educate people whilst opposing the power of the System.²¹ According to Robert Scheer, they were 'bold, raucous, and open to new ideas'.²² Informed by the

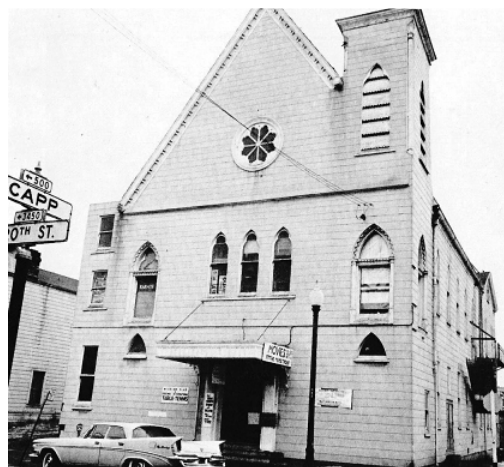


Figure 2.1: Studios / Abandoned church in the Mission District, photographed 1964; in Davis, *The San Francisco Mime Troupe*, 29.

philosophy of Bertolt Brecht, Davis was committed to the goal of bringing radical theatre to 'ordinary' people; to achieve this, the troupe began performing in parks and public spaces from 1962, using a small cast of regulars who assumed traditional, stylised character roles associated with Italian *Commedia dell'Arte* productions.

Davis argues that the small unstructured *Events* (I & II) and Nelson's *Plastic Haircut* opened up new options for his creative vision: a result was the adaptation of Alfred Jarry's proto-surrealist satire *King Ubu*, originally *Ubu Roi* (Paris, 1896), staged by the Mime Troupe in December 1963. It was performed indoors due to winter weather and featured a short film by Nelson, as well as music by Reich, who had also provided the incidental music to their show *Ruzzante's Maneuvers*, which ran from August to November of the same year.²³ Reich's unconventional soundtrack mirrored Wiley's surreal costume design and involved clarinet, strummed violin, and kazoo played through a makeshift megaphone in the form of a stolen traffic cone. Working in such a way must have provided Reich with a practical and enjoyable antidote to the inflexible environment in which he found himself at Mills and the

²⁰ Mason, 'The 1960s: Mime to Guerrilla Theater', in: Mason (ed.), *The San Francisco Mime Troupe Reader*, 9.

²¹ See: Davis, *The San Francisco Mime Troupe*, 13.

²² Robert Scheer, 'Introduction' to: *Ibid.*, 10.

²³ See: 'Chronology', in: *Ibid.*

classes he'd left at the Juilliard School in New York. He has even suggested that it was 'exactly what the doctor ordered' after his MA in composition.²⁴

Alongside experimentation with primitive tape collage and unconventional music for the Mime Troupe's productions, however, Reich was also pursuing his interest in Third Stream improvisation. Around this time, he was rehearsing with an ensemble consisting variously of: Phil Lesh (trumpet), Jon Gibson (clarinet & saxophone), George Rey (violin), Gwen Watson ('cello), Paul Breslin (bass), and Tom Constanten (piano).²⁵ Late in 1963, finding the group needed some form of musical framework and constraint, Reich composed *Pitch Charts*, three 'movements' as guidelines for non-diatonic group improvisation:

Everybody played the same note – free timbre, free attack, free rhythm. Then everybody played two or three notes, basically building up to the full twelve notes. The way we moved from one group to the other was that one player would play a kind of audible cue...The effect of these pieces was to hear the same chord atomized and revoiced in an improvisational way.²⁶

A certain modality thereby began to emerge from what might have been atonal or free interplay of voices, if only to be undermined as more pitches were added. These 'charts' were performed at Reich's four 'Music Now Concerts' held at the Mime Troupe's theatre in late May 1964 (21, 23, 29, and 30).²⁷ Constanten provides an eyewitness account of the events in his *Musical Autobiodysey*:

Phil [Lesh] contributed a piece for the group, including a jubilantly eruptive prepared piano solo for me...In the true, adventurous aleatoric spirit of the times Phil shuffled the segments anew before each performance...The first half of the program closed with Gwen Watson playing a Bach suite, and I opened the second half with a prepared piano plus tape solo...The opening night of the series was punctuated by

²⁴ From an interview with Ev Grimes (Oral History of American Music, Yale University), quoted in: Sumanth Gopinath, 'Contraband Children: The Politics of Race and Liberation in the Music of Steve Reich 1965–1966' (Ph.D. diss., Yale University, 2005), 84-5.

²⁵ See: William Duckworth, *Talking Music: Conversations with John Cage, Philip Glass, Laurie Anderson, and Five Generations of American Experimental Composers* (New York: Da Capo Press, 1999), 295; Paul Hillier, 'Introduction' to: Reich, *Writings on Music*, 11; Potter, *Four Musical Minimalists*, 160; and Strickland, *Minimalism*, 185.

²⁶ Duckworth, *Ibid.* See also: Potter, *Ibid.*, 160–1.

²⁷ See: Constanten, *Between Rock & Hard Places*, 53; <<http://www.tomconstanten.com/base/1961-80.html>> [accessed 18.11.10] for a list of performance credits which includes details of the 'Music Now Concerts'; and Welsh's 'Chronology' in Bernstein (ed.), *The San Francisco Tape Music Center*, 275. Constanten recalls how he used the inside of the piano during these improvisations.

the sounds of the judo class that met upstairs. Coming on right after the intermission, I found them hard to ignore.²⁸

One of these concerts happened to initiate an encounter which would fundamentally affect the direction of Reich's subsequent work – a meeting with West-Coast Beatnik and fellow composer Terry Riley.²⁹ In a 1987 interview with Edward Strickland, Riley recounts the event as follows:

An old friend of mine, Bill Spencer, a jazz musician, had met Steve and told me Steve's group was performing one night down at the Mime Troupe...I went to the first half and left...The thing I heard was improvisation, but very banging around and noisy. The next day at my studio in a garage up on Bernal Heights, where Steve also lived, though I didn't know it, there was a bang on the door, and it was Steve Reich. The first thing he said was, 'why did you walk out on my concert?' He was so *furious*, right? So I told him to come in. We sat down and got to know each other.³⁰

Reich apparently calls the story 'a little apocryphal', but whatever the exact details of their meeting (and in spite of their differences) the two began a close friendship.³¹ During the early 1960s, Riley was also experimenting with tape and the manifold possibilities opened up by the electronic manipulation of 'found' sound. One of his first pieces in this genre evolved from the musical accompaniment he created for Anna Halprin's dance work *The Four-Legged Stool*, performed at the San Francisco Playhouse in September 1961.³² The result was entitled *Mescaline Mix* (1960–62), produced 'sound on sound' using unsophisticated equipment at Riley's home and subsequently completed at the Tape Music Center.³³ It featured fragments of Riley on piano, as well as the voices of actors Lynn Palmer, Mike Mack, and John Graham; the effect of assemblage, looping, manual speed-change, as well as Ramon Sender's employment of an 'echoplex' device in the mastering process, served deliberately to distort the sounds almost beyond recognition. The title alludes to Cage's *Williams Mix*

²⁸ Constanten, *Between Rock & Hard Places*, 54. Constanten's prepared piano and tape piece (*Piano Piece Number Three*) was put together with the help of Reich, who had just been lent a Sony 777 two-track machine for a short period by a friend called Tamara Ray; Reich made a tape of the piece, which was played back alongside a simultaneous live version in performance.

²⁹ There are errors in the literature on this point: Potter has the location as being on 'Bocana Street', presumably a misspelling of Bocana Street in Bernal Heights (*Four Musical Minimalists*, 108), whilst Strickland (*Minimalism*, 185) and Schwarz (*Minimalists*, 59) have the date in autumn 1964.

³⁰ Edward Strickland, *American Composers: Dialogues on Contemporary Music* (Indianapolis: Indiana University Press, 1991), 114 [emphasis in original].

³¹ Quoted in: Schwarz, *Minimalists*, 60.

³² Many key sources disagree on the name and date of this event. For clarification, see: <http://www.annahalprin.org/about_chronology_60.html> [accessed 17.08.10].

³³ It is available as a re-release on the CD: Terry Riley, *Music for 'The Gift'*, Elision Fields EF105 (2007) [Organ of Corti Archive Series].

(1952) or *Fontana Mix* (1958), although Riley's use of 'M...' or 'Mescaline' highlights an aspect of the work central to its impact: the resultant sound collage was a subtle but somewhat disturbing evocation of a psychedelic experience. Riley has been quite open about this aspect of his work:

I was very concerned with psychedelia and the psychedelic movement of the sixties as an opening toward consciousness...So I think what I was experiencing in music at that time was another world...the drug experience leads toward some kind of *satori*, some kind of enlightening, and that was what I was after. / Everybody had usually taken at least one trip, if not many.³⁴

Terry Riley

Having left California for Europe in 1962, Riley had made a living accompanying circus acts and playing piano in bars and American military bases around Paris. It was during this time that some of his American collaborators happened to arrive in France. He describes what happened after their meeting:

[Ken] Dewey was commissioned to do a piece for the Théâtre Récamier. There was a festival called Théâtre des Nations in Paris. He'd gotten a two-night date for a piece of his called *The Gift*. And he wanted me to be the musical director...Coincidentally, Chet Baker had just arrived in Paris [recently released from jail in Lucca]...Ken got me into a small recording studio at the Sarah Bernhardt Theatre...We took Chet and his band in, and I gave him some ideas about what to record. Mainly, I wanted him to play a modal piece, and they picked 'So What?' by Miles Davis.³⁵

Riley then spent some time working with a French RTF studio engineer – 'a very straight guy in a white coat' – trying to create a device similar to the echoplex but now on high-quality tape equipment.³⁶ The unidentified technician proceeded to hook up two tape recorders, so that while the first one was playing the second one recorded, with the tape reel stretched across the heads of both. Riley was pleased with the result: 'Boy! When I heard that sound it was just what I wanted. This was the first time-lag accumulator'.³⁷ He then asked Baker and his band to record each solo separately so he could cut up the takes and splice them together in whatever way he wanted, as well as using the new delay machine to manipulate the material. In this way, he could 'make

³⁴ Duckworth, *Talking Music*, 269; 'Terry Riley Interviewed by David W. Bernstein and Maggi Payne', in: Bernstein (ed.), *The San Francisco Tape Music Center*, 221. In the latter interview, Riley argues that 'how we were listening under the experience of mushrooms or LSD was not the way we were listening when not under that spell'.

³⁵ 'Terry Riley Interviewed', 215-6.

³⁶ Strickland, *American Composers*, 112.

³⁷ *Ibid.*

canons out of the trumpet and other parts', and also small repetitive tape loops out of a recording of John Graham's voice.³⁸ In fact, Riley argues that the resulting piece – *Music for 'The Gift'* (1963) – 'was when I really started understanding what repetition could do for musical form'.³⁹ For him, the experience of working with Baker's group and the new tape delay device in this context was pivotal: 'I felt it was really a new direction for me and was something that was going to nurture my whole career for quite a while'.⁴⁰

Returning to the United States in February 1964, mainly for financial reasons – after the assassination of President John F. Kennedy in November of 1963 entertainment was shut down on all US bases out of respect – Riley began thinking about how to apply his new tape techniques to live performance:

I started trying to write a piece...without using electronics. I wanted to write an instrumental piece that could have the same effect. I was taken by the modality of [the music] that Chet Baker [had played] in conjunction with tape loops, and I wanted to do something like that for other musicians.⁴¹

At first, Riley found it hard to write the piece, despite the conceptual element being clear; the answer apparently came one evening on a bus, where he claims he 'heard the whole beginning' of what would become his signature piece, *In C*.⁴² He concedes in some interviews that it was only 'the first ten patterns' that unravelled (some of which he had to revise) and that he 'worked on it a little more to get the rest of the piece developed'.⁴³ The work ended up consisting of fifty-three melodic units, which repeat in indeterminate counterpoint as players move from one to the next over a long span of time; Riley knew that the result 'would create a lot of interesting polyphony and combinations of patterns because of [his] experience with tape loops'.⁴⁴ Shortly after completing the deceptively simple one-page score, Riley was offered two solo nights at the Tape Music Center – 4 and 6 November 1964. Bernstein and Maggi Payne argue that this première was amongst the most significant events presented at the Center, as it 'challenged distinctions between so-called serious and popular music'

³⁸ Strickland, *American Composers*, 113.

³⁹ *Ibid.*

⁴⁰ 'Terry Riley Interviewed', 218.

⁴¹ *Ibid.*

⁴² *Ibid.*

⁴³ Duckworth, *Talking Music*, 277; *Ibid.*

⁴⁴ 'Terry Riley Interviewed', 218–9.

and was very much aligned to the ‘freethinking aesthetic inclusiveness’ cultivated there.⁴⁵ In his 1964 report from the Tape Music Center, founding member Ramon Sender codified this utopian aesthetic when he proposed that ‘somewhere there should be a place where the fragmented elements of our musical life could be melted together and recast through the establishment of the artist’s dialogue with his community in a new and vital way’.⁴⁶

The two concerts in early November were both entitled ‘An Evening of Music by Terry Riley’, and their programmes featured more than just the première of *In C*. Other pieces included *Music for ‘The Gift’*, a modal piano improvisation entitled *Coule*, and three other tape pieces recently composed on Riley’s home equipment: *I* (featuring the voice of John Graham), *Shoeshine* (featuring a Hammond organ solo by Jimmy Smith taped off the radio), and *In B_b Or Is It A_b* (featuring Sonny Lewis on tenor saxophone).⁴⁷ The humorous title of the last piece goes some way toward critiquing the myth of early-minimalist harmonic simplicity; even *In C* – often portrayed incorrectly as a series of ‘motifs in C major’ – contains the pitches F \sharp and B \flat , alongside their naturals, creating the potential for noticeable dissonance.⁴⁸ Fourteen performers made up the ensemble which first performed *In C*, including Reich, Riley, Ramon Sender, Philip Winsor, Pauline Oliveros, Morton Subotnick, Sonny Lewis, and Jon Gibson. It was, according to Riley, ‘a big *underground* event’, with the audience made up of ‘San Francisco poets, theater people, dancers, and avant-garde musicians’.⁴⁹ The concert received a favourable review by art critic Alfred Frankenstein in the *San Francisco Chronicle*, although it would take the 1968 recording on CBS (MK7178) for the piece to achieve its wide listenership and to receive notable critical attention; from then on, it began to assume its central role in narratives of minimalism’s genesis, effectively embodying the mythic utopian idyll of the ’60s.

After their fabled meeting – so the accepted narrative goes – Riley showed an early version of *In C* to Reich, who was so impressed by the piece that he

⁴⁵ ‘Terry Riley Interviewed’, 205.

⁴⁶ Ramon Sender, ‘The San Francisco Tape Music Center – A Report, 1964’, in: Bernstein (ed.), *The San Francisco Tape Music Center*, 43.

⁴⁷ For a reproduction of the programme, see: *Ibid.*, 27. See also: Potter, *Four Musical Minimalists*, 116–20.

⁴⁸ Quotation from: Paul Griffiths, *Modern Music and After: Directions Since 1945* (Oxford: Oxford University Press, 2002), 211.

⁴⁹ Duckworth, *Talking Music*, 271 [emphasis in original].

enthusiastically offered the services of his improvisation ensemble for the première. Reich even credits himself with suggesting, in rehearsals, the ‘drummed’ high C in quavers on the piano in order to keep the piece together – a necessity which was perhaps counter to the (somewhat illusory) democratic ideal proposed by the score.⁵⁰ Reich is quite open in remarking that he ‘learned a tremendous amount from putting the piece together’ and that it ‘had a very strong influence’ on his thinking.⁵¹ Without denying the validity of this experience, I would like to challenge the notion that *In C* was the only piece that influenced Reich during this period of contact with Riley; maybe its very notoriety within the conventional genealogy of early minimalism serves to conceal other connections manifest in a different medium. The November concerts at the Tape Music Center are proof that Reich came into direct contact with Riley’s subsequently lesser-known works for tape – a medium in which Reich was just beginning to find his feet. As Potter points out:

Riley’s brief, intense relationship with Reich in 1964 had been based on more than merely the preparations for the première of *In C*. The two composers had also been showing each other their recent work which, in both cases, consisted largely of tape compositions.⁵²

What could have impressed Reich in this context were pieces such as *Music for ‘The Gift’*, which featured mechanical, canonic repetition of vocal fragments via Riley’s time-lag accumulator device. What Reich might have heard in these pieces was the latent potential for a systematised, process-based approach to tape composition. This is corroborated by Riley’s insistence that Reich changed his musical direction in 1965: before that, he says, what Reich was doing ‘wasn’t anything like what he did after he met me’.⁵³ Further evidence can be found in the suppressed sub-title to Reich’s first formally-acknowledged work for tape.

It’s Gonna Rain

1964 was also the year that R. G. Davis, along with Saul and Nina Landau Serrano, arrived at the idea of doing a show at the Mime Troupe confronting white liberal racism in America based on the format of nineteenth- and early-twentieth- century

⁵⁰ Duckworth, *Talking Music*, 296.

⁵¹ *Ibid.*

⁵² Potter, *Four Musical Minimalists*, 117.

⁵³ Strickland, *American Composers*, 114.

minstrel shows; casting and preparations began in October.⁵⁴ By this time, the Troupe had grown in reputation and size and was a key player in the Bay Area radical movement. Robert Nelson had strong links to the Troupe, curating a ‘midnight move series’ on Friday and Saturday nights at the Capp Street church with Saul Landau.⁵⁵ At a similar time, Reich was apparently urged by a filmmaker friend to record an African-American Pentecostal street preacher, named Brother Walter, who occasionally gave sermons on Sundays in San Francisco’s Union Square.⁵⁶ It may be safe to posit that the ‘filmmaker friend’ was Nelson; furthermore, it is probably not coincidental that the project they intended to work on together featured a prominent African-American figure with a distinctly ‘racialised’ persona and accent. It is quite probable that the film project – which ultimately never came to fruition – was intended for, or at least informed by preparations for, the Mime Troupe’s 1965 minstrel extravaganza. Nelson recalls being asked by Davis during the show’s planning if he would make a short intermission piece: ‘All I knew was that the show was about Blacks and Whites. The deal was that they’d pay all the costs’.⁵⁷

Reich recorded Brother Walter with a portable tape recorder and decided to use the field recording of his voice for a new tape composition. Riley describes what happened during one of their meetings after Reich had recorded the charismatic young preacher: ‘he played me the fragments, and then he started making a piece out of it. The first thing he tried before he heard what I was doing was sort of a collage piece’.⁵⁸ This was supposedly entitled *Brother Walter* and, one can imagine, probably sounded vaguely similar to Reich’s other voice-collage works for tape from this period.⁵⁹ But *Brother Walter* changed entirely during the time Reich became acquainted with Riley: it transformed into the first manifestation of his now distinctive phase-shifting canons. The resulting piece – in two parts – is referred to by Reich in interviews, writings, and lists of works as *It’s Gonna Rain* (1965). However, it carried a rather more detailed and revealing title for its première at the San

⁵⁴ See: Davis, *The San Francisco Mime Troupe*, 49 & 199.

⁵⁵ *Ibid.*, 43.

⁵⁶ See: Gopinath, ‘Contraband Children’, 154–5.

⁵⁷ MacDonald, ‘We were Bent on Having a Good Time’, 40.

⁵⁸ Strickland, *American Composers*, 114.

⁵⁹ One can get an idea of what such a piece would have sounded like by listening to the opening looped ‘collage’ of Part II before the phasing begins. Other works in this style are: *Plastic Haircut* (1963), *Livelihood* (1964), and *Thick Pucker* (1965).

Francisco Tape Music Center on 27 January 1965, as part of an evening of Reich's music: *It's Gonna Rain, or, Meet Brother Walter in Union Square after Listening to Terry Riley*.⁶⁰ This original title bears the marks of the San Francisco experimental scene at that point: the audience may even have found it amusing – a representation of how one might've heard the world after being immersed in Riley's (well-known) aesthetic. Perhaps it's even a sign of how Reich approached the recorded material after he had done the 'listening'. One might also be tempted to ask 'after listening to *what* by Terry Riley?' I would argue that the connection was not necessarily between Reich's percussive vocal repetitions and the instrumental polyphony of *In C*, but between the techniques of Reich's piece and Riley's pervasive manipulation of the looped fragment 'she moves' (spoken by actor John Graham) throughout *Music for 'The Gift'*.⁶¹ Listening to these two pieces in light of Reich's preliminary title serves as the test for such a theory. The complete suppression of the piece's subtitle after 1968, especially on Reich's first solo commercial LP for Columbia Masterworks entitled *Live / Electric Music* (MS 7265), signals a desire to remove this direct and evident connection to Riley's work.

Reich's story of the genesis of phase shifting – an effect he claims to have found unintentionally via early reel-to-reel tape technology – appears pervasively in interviews and has been further disseminated by the secondary literature. In a 1996 interview with Jonathan Cott, issued as part of a Nonesuch ten-disc retrospective of Reich's works, 1965–95 (79451-2), he recounts it as follows:

I discovered the phasing process by accident. I had two identical loops of a Pentecostal preacher, Brother Walter, whom I recorded in San Francisco's Union Square, saying 'It's gonna rain'. I was playing with two inexpensive tape recorders – one mono jack of my stereo headphones plugged into tape recorder A, the other into tape recorder B – and I had intended to make a specific relationship: 'It's gonna' on one loop, against 'rain' on the other. Instead, the two recorders just happened to be lined up in unison, and one of them gradually started getting ahead of the other. The sensation I had in my head was that the sound moved over to my left ear, moved down to my left shoulder, down my left arm, down my leg, out across the floor to the left, and finally began to reverberate and shake and become the relationship I was looking for – 'It's gonna / It's gonna, rain / rain' – and then started going in

⁶⁰ See Welsh's 'Chronology', in: Bernstein (ed.), *The San Francisco Tape Music Center*, 277. The programme also included *Music for Two or More Pianos or Piano and Tape* (1964) and *Livelihood*. For various personal reasons, Reich only played the first part of *It's Gonna Rain, or, Meet Brother Walter in Union Square after Listening to Terry Riley* at this solo concert. Reich suggests that he censored the second half of the work because it 'seemed so paranoid and depressing' at the time, only later realising that 'it was obviously part of the piece'. [Duckworth, *Talking Music*, 297].

⁶¹ The phrase is taken from the line 'she moves, she follows' in Dewey's devised play.

retrograde until it came back together in the center of my head. When I heard that, I realized it was more interesting than any one particular relationship because it was a process of gradually passing through all the canonic relationships making an entire piece and not just a moment in time.⁶²

In this way, Reich stumbled across a process that was effectively ‘a series of rhythmically flexible canons at the unison’ – something simply brought about by the nature of the imperfect Wollensak tape recorders he could afford at the time.⁶³ There are two main possibilities as to how this ‘discovery’ was made on the machines: either the two loops on the different recorders were not identical (having probably been measured and cut by hand), or the machines weren’t calibrated to play at exactly the same speed (as the technology required frequent and careful adjustments to be made).⁶⁴ Both of these possibilities would have allowed one loop to slide gradually ahead of the other – or one to fall gradually behind, giving the same effect.

When questioned about Reich’s supposed invention of the phasing process in this manner, Riley is quite clear that he is due some credit as a precursor:

I’d already done that...I’d made pieces with words and tape loops before...when two identical modules are played simultaneously by either tape machines or live performers, imperfections in speed or pitch result in ‘phasing’. I introduced the process into music composition; Steve correctly labelled it.⁶⁵

Riley’s claim of ‘authorship’ over the process, however, is also problematic as he was working within an experimental milieu at the San Francisco Tape Music Center, which included composers such as Pauline Oliveros who were using similar techniques from the limited range available at the time.⁶⁶ Moreover, John Cage had already laid the groundwork for such an aesthetic in 1957, by arguing that it was now possible to make music directly using tape machines in the following way:

1) a single recording of any sound may be made; 2) a rerecording may be made, in the course of which, by means of filters and circuits, any or all of the physical

⁶² Jonathan Cott, ‘Interview with Steve Reich (1996)’,

<http://www.steverreich.com/articles/Jonathan_Cott_interview.html > [accessed 29.04.10].

⁶³ Duckworth, *Talking Music*, 297. Presumably the model Reich used would have been the ‘3M Wollensak T-1500’, the most popular machine in the United States at that time. The T-1500 had a reputation as being solidly-built and durable with good sound quality. See:

<http://www.clydesight.com/wollensak_reel_to_reel_tape_recorder/Wollensak_history.html> [accessed 22.11.10]; various demonstrations are available on YouTube.

⁶⁴ Thanks to Bill Brooks for pointing these possibilities out to me from his own experience.

⁶⁵ Strickland, *American Composers*, 114.

⁶⁶ See: Pauline Oliveros, ‘Memoir of a Community Enterprise’, in: Bernstein (ed.), *The San Francisco Tape Music Center*.

characteristics of a given recorded sound may be altered; 3) electronic mixing (combining on a third machine sounds issuing from two others) permits the presentation of any number of sounds in combination; 4) ordinary splicing permits the juxtaposition of any sounds...*Also it has been impossible with the playing of several separate tapes at once to achieve perfect synchronization.*⁶⁷

It is not clear whether Riley considers phasing to be an innate and unavoidable aspect of working with tape (and therefore not open to claims of authorship) or whether, as he was one of the first to use loops in that fashion, he has a prior claim of originality. What he does declare as his own, however, is the ‘invention of [a] form built solely out of repeating modules’, and this is certainly one of the elements Reich absorbed into his musical thinking during this time.⁶⁸ As far as the phasing process itself is concerned, Riley sums up what he thinks happened:

What Steve did, because he’s very methodical and clean in his work, was to make the phasing work very gradually and to make a process out of it. I made the tapes go backwards, forwards ... it was fun, very funky. So I think his contribution was to clean all these things up and make kind of a method out of it.⁶⁹

This conclusion would help to situate Reich more convincingly within a distinct practice – that of the San Francisco Tape Music Center, with its alternative and independent West Coast environment. Potter concurs, arguing that Riley’s ‘use of tape loops to effect the transformation of speech through repetition, overlay and slow changes of speed are clearly influences on Reich, suggesting effects to him that *In C* itself did not’.⁷⁰ With this seminal idea taken from Riley’s work with tape, the novel aspect Reich developed – and consequently stressed – was the audibility of the manipulative processes employed and the somewhat ‘impersonal’ rigour of their execution. If Riley used the technique in a free, composerly fashion, Reich’s accomplishment was not its invention, but the discovery of a technique that would provide the basis for a systematic compositional methodology.

⁶⁷ John Cage, ‘Experimental Music’ (1957), in: Cage, *Silence: Lectures and Writings* (1968; London: Marion Boyars, 2006), 9 & 11 [emphasis added]. The essay was reproduced in the brochure accompanying the recording of Cage’s 25-year retrospective at Town Hall, New York, in 1958. Works by Cage were frequently played at the SFTMC and his ideas would, no doubt, have been discussed.

⁶⁸ Strickland, *American Composers*, 114.

⁶⁹ *Ibid.*

⁷⁰ Potter, *Four Musical Minimalists*, 165.

Reich has indicated that *It's Gonna Rain, or, Meet Brother Walter in Union Square after Listening to Terry Riley* was reflective of his situation at the time of composition. He explains why he chose to work with that particular sermon:

I recorded Brother Walter in 1964 shortly after the Cuban missile crisis, and I thought we might be going up in so much radioactive smoke. With that hovering in the background and this preacher laying it down about the Flood and Noah, it really had a lot of resonance. So I wanted people to hear the words; I didn't want to disguise them...The emotional feeling is that you're going through the cataclysm, you're experiencing what it's like to have everything dissolve.⁷¹

Bearing this fear in mind, Reich says that he deliberately set what the preacher said 'in a way that was appropriate to the subject matter'.⁷² Similar themes can be detected in a number of Bob Dylan's songs on *The Freewheelin' Bob Dylan* (Columbia Records, 1963) and in Stanley Kubrick's film *Dr. Strangelove, or How I Learned to Stop Worrying and Love the Bomb* (1963). On top of this, Reich was going through a divorce, something which he feels also affected the 'dark mood' of the composition. The Cuban missile crisis, however, was in October 1962: remarks about the recording happening 'shortly after' this therefore only make sense as a retrospective nod to the zeitgeist. The two most significant political topics in California during the latter part of 1964 were undoubtedly the Free Speech Movement and opposition to the escalating war in Vietnam.⁷³ Also contributing to a general sense of social unease were factors such as increasing racial tensions caused by police brutality toward African Americans, leading to urban 'race riots' in Rochester (July), New York (July), Philadelphia (August), and subsequently the Los Angeles Watts Riots (August, 1965). Linked to these was the rise of reactionary Black Power movements, epitomised by the founding of the armed Black Panther Party for Self Defense in 1966, and a change in approach toward Civil Rights activism.⁷⁴

⁷¹ Reich, *Writings*, 21.

⁷² Jason Gross, 'Interview with Steve Reich (April 2000)', *Perfect Sound Forever Online Music Magazine* <<http://www.furious.com/perfect>> [accessed 02.07.10].

⁷³ For an excellent documentary film on this turbulent epoch, including interviews with participants, see: Mark Kitchell (dir.), *Berkeley in the Sixties* (1990), Kitchell Films / P.O.V. [DVD, 2007]. Also see: Eric Noble, 'The Artist's Liberation Front and the Formation of the Sixties Counterculture' (1996), <<http://www.diggers.org/alf.htm>> [accessed 05.10.10].

⁷⁴ See: Howard Brick, *Age of Contradiction: American Thought and Culture in the 1960s* (Ithaca: Cornell University Press, 1998); William L. O'Neill, *Coming Apart: An Informal History of America in the 1960s* (1971; Chicago: Ivan R. Dee, 2005).

On 2 December 1964, Mario Savio, then spokesman and leader of the Free Speech Movement, gave a rousing address to assembled students from the steps of the University of California at Berkeley's Sproul Hall, urging them to oppose the System through acts of mass civil disobedience:

There's a time when the operation of the machine becomes so odious, makes you so sick at heart that you can't take part. You can't even passively take part and you've got to put your bodies upon the gears and upon the wheels, upon the levers, upon all the apparatus – and you've got to make it stop! And you've got to indicate to the people who run it, to the people who own it, that unless you're free the machine will be prevented from working at all.⁷⁵

The context for Reich's work – as well as being impending nuclear annihilation due to misguided Cold War foreign policy – also involved radical opposition to oppressively 'machine-like' aspects of the System voiced by the New Left. These were informed by the rhetoric of responsibility and resistance linked to such works as Hannah Arendt's *Eichmann in Jerusalem* (1963), which outlined her idea of the 'banality of evil' and the distance between orders, actions, and outcome created by impersonal bureaucracy.⁷⁶ Read in this way, Reich's keen embrace of systematic, process-based elements strikes a problematic chord with his radical political affiliations at the time, such as those with Nelson and the San Francisco Mime Troupe.⁷⁷

Sumanth Gopinath argues that a perspective stressing the imminent possibility of nuclear holocaust over internal social issues neglects the important problem of how race functions ideologically in the piece.⁷⁸ In his *Writings on Music*, Reich described what initially appealed to him about the idea of using 'found' material:

I was extremely impressed with the melodic quality of [Brother Walter's] speech, which seemed to be on the verge of singing. Early in 1965, I began making tape loops of his voice, which made the musical quality of his speech emerge even more strongly.⁷⁹

In this way, Reich was aiming for a kind of documentary quality to the piece; it was, according to him, a way to avoid the problems of artificiality and identity-loss in text setting: 'by using recorded speech as a source of electronic or tape music, speech-

⁷⁵ See: <<http://www.americanrhetoric.com/speeches/mariosaviosproulhallsitin.htm>> [accessed 22.11.10] for a transcription of the speech; video footage is included in Kitchell, *Berkeley in the Sixties*.

⁷⁶ See: Brick, *Age of Contradiction*, 28–9.

⁷⁷ See Chapter 5 for a continuation of this line of argument in relation to Reich's work.

⁷⁸ Gopinath, 'Contraband Children', 127 & 129.

⁷⁹ Reich, *Writings*, 19.

melody and meaning are presented as they naturally occur'.⁸⁰ Another 'racial' element which found its way into the discourse surrounding the piece was Reich's interest in African music via A. M. Jones's book *Studies in African Music* (1959).⁸¹ Reich asserts that he first came into contact with the book after the composers' conference in Ojai, California, in 1962, which he had been taken to as part of Berio's class.⁸² During the conference, Gunther Schuller gave a talk on early jazz and drew attention to Jones's pioneering work in transcribing African music into Western notation. Afterwards, Reich managed to get hold of a copy. He describes what then happened:

When I opened the book by Jones, what excited me in the first place was the way the music was put together...I thought, Aha! I never saw that before. It looks like a bunch of tape loops spinning around, all landing in different places. Seeing this book was quite a revelation for me in terms of seeing a brand new musical technique laid out on paper.⁸³

There is evident confusion, however, in what Reich says about this in relation to the phase-shifting technique, which leads toward the conclusion that Jones' book might be a red herring in discussion of his tape works. In 1994, Reich seemed to imply that seeing the polyrhythmic African music notated by Jones spurred his interest in a new form of repetitive looping, yet back in 1970, he was quite clear that the process he 'discovered' came solely out of contact with tape:

What tape did for me basically was on the one hand to realize certain musical ideas that at first just had to come out of machines, and on the other to make some instrumental music possible that I never would have got to by looking at any Western or non-Western music.⁸⁴

What cuts across these two 'racialised' instantiations is the phenomena of the White 'gaze', a position manifest in 1960s 'countercultural' obsession with the ethnic Other as a key locus of 'authenticity'. Reich evidently found African(-American) culture to be a fruitful resource for his artistic practice, perhaps as a way to 'exoticize' the seemingly normative ethnic standpoint he found himself occupying.⁸⁵ In this

⁸⁰ Reich, *Writings*, 19.

⁸¹ Arthur M. Jones, *Studies in African Music* (Oxford: Oxford University Press, 1959) [2 volumes].

⁸² See: *Steve Reich, Michael Berkeley, and Gavin Bryars in Conversation*, British Library Sound Archive: ICA Talks (recorded 28 January 1986, London Institute of Contemporary Arts).

⁸³ Geoff Smith, *American Originals: Interviews with 25 Contemporary Composers* (London: Faber & Faber, 1994), 217; Duckworth, *Talking Music*, 294.

⁸⁴ Nyman, 'Steve Reich: An Interview', 230.

⁸⁵ The desire to escape this standpoint and affirm an ethnic identity becomes manifest later in Reich's embrace of his Jewish heritage and faith in the 1970s.

sense, Gopinath argues, Reich's attraction to Black culture (especially in relation to 'heightened' vernacular speech, African music, and the work of saxophonist John Coltrane) represents the New Left's perception of 'an authenticity lacking in their increasingly suburban and de-ethnicized White heritages'; this culminated in the embrace of artificial devices of authenticity, often tied to non-Western religions and minority cultural practices.⁸⁶ Robert Nelson, with whom Reich worked closely during this period, has been especially candid in regard to this aspect of his outlook: he states that he was 'involved in an idealization of Blackness'.⁸⁷ Reich shared in this perception of African-American culture, as certain aspects pervaded his work between 1965 and 1966; rather than simply embodying protest in the familiar Civil Rights vein, however, Reich's work from this time embodied hybrid and conflicting impulses that resist simple readings and thus serve as mirrors onto the racial tensions within American society of the 1960s.

In his PhD dissertation, from which I have been quoting, Gopinath provides the first comprehensive analysis of *It's Gonna Rain*, using detailed transcriptions of the piece's dense sound-world.⁸⁸ It is not my wish to present such a response here; I will instead outline Gopinath's findings and engage with the hermeneutic questions that they raise in conjunction with Reich's other 'race works' from this period. Part I of *It's Gonna Rain* begins with a complex thirteen-second fragment containing more than just Brother Walter's voice: the scene it paints includes the low rumble of traffic (or perhaps wind hitting the microphone), a pigeon flapping its wings, another small bird chirping, someone stamping on the ground, and the ambient wash of conversation in the square featuring the voices of various onlookers responding to the sermon. Its effect is therefore similar to an urban genre painting or a potent documentary photograph, displaying a striking sense of balance and coherence. This is achieved by the preacher's quasi-reciting-tone around D4 and the 'harmony' the other voices happen to construct around it, along with the rhythmic 'drum beat' provided by the pigeon's wings. The text used in Part I, elaborately improvised around the scant Biblical narrative from Genesis, is as follows:

⁸⁶ Gopinath, 'Contraband Children', 134; see also: Brick, *Age of Contradiction*, 66–98.

⁸⁷ MacDonald, 'We were Bent on Having a Good Time', 40.

⁸⁸ Gopinath, 'Contraband Children', 158–93. It should be pointed out that Potter's brief textual analysis in *Four Musical Minimalists* (168) contains errors: the words in bold, supposed to be 'those used for musical development', are wrongly identified in Part II. See below for corrections.

He began to warn the people, he said: ‘after a while, it’s gonna rain after a while, for forty days and for forty nights’. And the people didn’t believe him. And they began to laugh at him. And they began to mock him. And they began to say: ‘it ain’t gonna rain!’

Gopinath argues that the position of Noah, as isolated and ridiculed outsider, might be seen to be reproduced here: ‘a strange African-American preacher viewed as exotic (if not exactly ridiculous) by a blithe, white or even multiethnic crowd of people’ doing their shopping in San Francisco’s Union square.⁸⁹

Reich isolates and repeats the fragment ‘it’s gonna rain’, which also contains a (child’s?) voice simultaneous to ‘gonna’, forming a (near) perfect fifth above Brother Walter’s D, as well as a continuous eighth-note pulse courtesy of the pigeon. This groove is disrupted at 0:37 when Reich begins what he refers to as ‘a kind of monophonic sampling’, with the two loops being stereophonically separated by a maximal phase distance of 180 degrees.⁹⁰ Presumably this was similar to the relationship Reich was trying to achieve when he ‘discovered’ the phasing process: the piece therefore seems to enact the moment of revelation for the composer, moving from his earlier interest in sampling to the rigorous phase-shifting procedure. We hear a montage created by manual alternation between the two loops, which is then mixed down to mono. Reich switches between the loops in such a manner as to scan through various relationships, creating unexpected word combinations and shifts that appear to make the speaker ‘stutter and convulse’.⁹¹ It is as if the composer has Brother Walter trapped in a technological trance: Reich the magician is able to manipulate the preacher as if he were an audio puppet. From 2:00, we return to the original looped fragment, and the phasing process proper begins: the signal doubles into stereo, and the repeated fragment gradually moves systematically out of sync with itself and then back again, an effect achieved by Reich’s manual retarding of one supply reel with his thumb when creating the initial mix. The ‘drum beat’ makes it clear when the fragment ‘locks’ into its various positions along the way. Brother Walter’s voice appears torn apart as an echo effect is steadily replaced by increasing phase difference; Gopinath argues that this section sounds ‘as if the composer has “let go”

⁸⁹ Gopinath, ‘Contraband Children’, 162.

⁹⁰ Potter, *Four Musical Minimalists*, 169.

⁹¹ Gopinath, ‘Contraband Children’, 164.

of the controls, so to speak, and is now allowing the music to proceed of its own will'.⁹² Whilst appearing to be true, this is clearly not the case: Reich retains quite strict control of the process, whilst the process itself is laboriously reliant on the composer's direct manipulation of the tape machines. The preacher is eventually released from this mechanical spell just before the end of Part I (7:46).

Part II opens with another 'documentary' audio image, this time much longer, and painting a somewhat different scene from that of Part I: rather than the noises of a crowd, we hear Brother Walter preaching alone at a (presumably) later point in the day. There are some ambient sounds – the stamping of the preacher's foot for emphasis, traffic in the square, a bird – but the sonic space is relatively empty. Perhaps in compensation for this, Brother Walter's sermonizing has become more insistent and vivid: the 'reciting tone' moves up in pitch and his volume increases. This section revels in Walter's shocking oration as the simple tale of Noah and the ark is embellished to form a cruel, dramatic allegory. The text is as follows:

They didn't believe that it was gonna rain. But glory to God! Halleluja! Bless God's wonderful name this evening! I said this evening! After a while, they didn't believe that it was gonna rain. But sure (e)nough! It began to rain. Halleluja! They began to knock upon the door, but it was too late. Whew! The Bible tell me, they knocked upon the door until the skin came off their hands. Whew! My Lord, my Lord. I said until the skin came off their hands. They cried – I can just hear their cry now, I can hear them say: 'Oh, Noah, would you just open the door?' But Noah couldn't open the door. It had been sealed by the hand of God.

After this forty-second recording, we hear an eight-second looped collage of various fragments from the preceding sermon. This clearly points back to Reich's earlier interest in tape collage and could even have been part of the initial *Brother Walter* piece he showed to Riley before employing the phase-shifting technique. The text fragments Reich chose emphasised the stranded people's inability to board Noah's ark, in horrific contrast to the preacher's enthusiastic lauding of God's actions; it becomes a despondent tale concerning the cruelty of Divine justice. A minimal degree of tonal grounding is also created through this choice of pitched spoken elements from the otherwise dissonant recording. However, there is no clear 'groove' as in Part I, and the speech-rhythms appear disjointed and deliberately confused. Reich's collage loop is as follows:

⁹² Gopinath, 'Contraband Children', 167.

ll: Glory to God! / God! / Had been sealed / Couldn't open the door / Oh, Noah! /
 They cried / Just open the door? / Couldn't open the door / But sure (e)nough! /
 Halleluja! :ll

This montage then becomes the basis for a phase-shifted degeneration into apocalyptic noise. Once again, the loop jumps into stereo and is gradually phased against itself, allowing Brother Walter's voice to assume terrifying proportions. The effect is augmented when, at 3:16 and then again at 6:16, the loop is doubled and phasing continues: we are eventually presented with the preacher multiplied into eight voices, almost akin to a crowd. Gopinath argues that the result sounds almost as if the preacher is being 'amplified by a megaphone and echoing off surrounding edifices' as the text excerpts increasingly dissolve into incomprehensibility.⁹³ Rather than bringing the phasing process back to unison, Reich consciously manipulated the loops to achieve an audio simulacrum of frenetic chaos, which fades out by 9:45. Within this, it is possible to hear strange 'psychoacoustic fragments' which will vary from person to person, perhaps as an analogue to the unsettling paranoia of the initial text.

Gopinath argues that the piece divides into two affective halves correspondent to the two parts: the first somewhat 'comic' and the second rather 'tragic'. The effect of a single phrase subject to multiple alignments (which neatly return to unison to end) in Part I perhaps recalls word games or 'tongue twisters', whereas the massification of voices and their degeneration into what appears to be aggressive exhortations in Part II perhaps mirrors the sound of violence in contemporaneous race riots.⁹⁴ In both halves of the work we are made aware of 'the strong hand of the composer', with regard to manual channel switching in Part I and the collage of Part II, as well as the setting in motion and subsequent control of the phasing process.⁹⁵ During the piece, Brother Walter's voice is effectively displayed as a sign of Otherness, and Gopinath argues that the way his sermon is treated 'recalls the minstrel parody of the Black preacher's speech-song', a racial stereotype Reich may have had in mind due to his involvement with the Mime Troupe's preparations for their

⁹³ Gopinath, 'Contraband Children', 167.

⁹⁴ This view of the first half is corroborated by a newspaper article on music for children by Linda Winer, who suggests the piece 'can be as funny as saying brussel sprouts seven times fast'. Winer, 'Sounds for Children', *Chicago Tribune* (12 December 1971), 12. See also: Gopinath, 'Contraband Children', 185–8.

⁹⁵ Gopinath, 'Contraband Children', 179.

minstrel show.⁹⁶ In this sense, what Reich presents us with is an instantiation of the White ‘gaze’ in audio format – a way of viewing the Black Other that is presented to the listener as ideologically ‘neutral’, foregrounding the artist’s sonic manipulations over the recording of its original subject.

A Minstrel Show

On 17 June 1965, the San Francisco Mime Troupe premiered their incendiary new production *A Minstrel Show, or ‘Civil Rights in a Cracker Barrel’* at the Commedia Repertory Theatre, Palo Alto. The show was designed to ‘make stereotypes carry the burden of social satire’ and, through the use of an interracial cast all in blackface, to ‘unnerve’ and ‘fuck up’ the audience’s perceptions.⁹⁷ By unearthing clichés purported to be buried within a



Figure 2.2: Original poster for *A Minstrel Show*, 1965; in Davis, *The San Francisco Mime Troupe*, 48.

generalised White liberal subconscious, the Troupe wanted to confront the problem of racism in American society from an unconventional perspective. Saul Landau argues that the show, like all Mime Troupe productions, had an overt political purpose:

Through satire, parody, slapstick, song and dance and just plain old bad jokes, we hoped to get people to laugh about issues that ordinarily were not funny as a means to thinking critically about them, releasing them from their correct and often sterile forms of thought.⁹⁸

Davis proposed that this effect was created by the rapid dialectical juxtaposition of docile stereotypes with Black radical images, which ‘caught prejudices offguard and exposed them’.⁹⁹ The show was worked on for nine months (October 1964 – June

⁹⁶ Gopinath, ‘Contraband Children’, 183.

⁹⁷ Davis, *The San Francisco Mime Troupe*, 32 & 50. There are photographs of the show on 54, 55, & 57. For script excerpts, see also: Mason (ed.), *The San Francisco Mime Troupe Reader*, 26–57.

⁹⁸ Quoted in: Mason (ed.), *The San Francisco Mime Troupe Reader*, 26–7.

⁹⁹ Davis, *The San Francisco Mime Troupe*, 57.

1965) and involved the cast delving into their own personal experiences of racism. The script featured a mixture of cross-fire dialogue gleaned from old minstrel shows and original devised material by Davis and Landau. The traditional minstrel shows from which they borrowed not only created and perpetuated racial stereotypes, but effectively justified the existence of a segregated society reliant on slavery.¹⁰⁰ These shows gave White Americans the chance to control the representation of racial identities whilst providing the context for an exploration of their own fascination with Black culture. By using the form but tackling the content of such minstrel shows, the Troupe aimed to foreground how Whiteness had historically viewed the Black Other. It was, according to Davis, not a show about Civil Rights or integration, but tolerance: ‘we were not for the suppression of difference; rather, by exaggerating the differences we punctuated the cataracts of “color blind” liberals’.¹⁰¹

The production also involved an interval film by Robert Nelson that came just after the notoriously scandalous ‘Chick–Stud scene’, in which a hyper-virile minstrel would pick up a Black-pitying White girl in a bar (played by another minstrel wearing a pink mask), simulate sex, and then engage in a post-coital argument where they deflate each others clichéd responses. During the ‘interval’ the minstrels leapt into the audience, making approaches to women in order to dance with them on stage.¹⁰² The film, entitled *Oh Dem Watermelons*, was conceived and written by Nelson, Landau, and Davis and starred members of the Troupe in a narrative about the life and death of a watermelon, ‘or thirty ways of doing in or getting done in by a symbol’.¹⁰³ It won a number of awards separate to being screened in the show, including prizes at the Ann Arbor and San Francisco Film Festivals. Nelson, however, argues that it didn’t have the same didactic clarity as the show itself:

The only thing I could imagine doing was making something that would be shocking in how it would meet the issue, but fundamentally ambiguous. The film demonstrated the forbidden and didn’t say anything about it afterwards. You can’t add all the images together into a conclusive point of view; the film becomes what you project into it. I’d never have chosen to stand up on my own and be a spokesman on racism...it was offered to me as an opportunity.¹⁰⁴

¹⁰⁰ For an excellent introduction to the issues related to the show and Reich’s soundtrack to Nelson’s film, see: Gopinath, ‘Contraband Children’ (Chapter 2: Reich in Blackface), 75–124.

¹⁰¹ Davis, *The San Francisco Mime Troupe*, 63. In this sense, it was a different type of production to contemporaneous plays about race, such as LeRoi Jones’ *Dutchman* (New York 1964).

¹⁰² See: *Ibid.*, 58–62.

¹⁰³ *Ibid.*, 62.

¹⁰⁴ MacDonald, ‘We were Bent on Having a Good Time’, 40.

The film remained in the satirical vein of *Plastic Haircut*, but this time looked outward on society rather than inward on itself. It used the watermelon as a racial signifier, playing on its offensively stereotypical association with African Americans. The watermelons can be seen to have been used allegorically in the position of victim, providing a symbolic representation of the violence and brutality enacted toward Blacks in American society.¹⁰⁵ The film opens with a long static shot of a watermelon (in the guise of a football) which leads into a comic montage of sports imagery. Watermelons are then dropped, run over, kicked, chased, stamped on, hit, stabbed, shot, crushed, and ‘disembowelled’. Cartoon-like images also present clichéd instantiations of rural Africans carrying watermelons and playing them as musical instruments; other watermelons are airlifted, seen amidst balloons, carried by superman, and found in incongruous political situations with heads of state; some are flushed down the toilet, one is made love to by a young woman, some are eaten, and one is excreted by a dog. Finally, through some clever editing, the broken fruit reassembles itself and chases the terrified crowd up a winding hill, casting off its burden of socio-political oppression in a surreal but threatening comic finale.

Reich’s soundtrack to Nelson’s film consisted of an arrangement of two traditional minstrel songs and an extended canon using parts of the phrase ‘oh dat watermelon’, sung live by the Troupe during screenings of the film. In the recording, a male-voice choir begins by plaintively humming a version of Steven Foster’s classic plantation song ‘Massa’s in de Cold Ground’ (1852) in D major over the opening credits. The song appears again after the long silent shot of a watermelon in a sports field, this time at a faster tempo and with the announcer’s voice urging the viewer to ‘follow the bouncing watermelon’ as an animated fruit leaps from one syllable to the next in the manner of an accessible television ‘sing along’. The music then launches into the chorus of another, much livelier, minstrel song: Luke Schoolcraft’s ‘Oh! Dat Watermelon’ (1874), also in D major.¹⁰⁶ Following this, we encounter Reich as composer / arranger more overtly: a simple harmonic progression supports a chant

¹⁰⁵ The film (along with Reich’s soundtrack) is available on YouTube; <<http://www.youtube.com/watch?v=THDEEu5LMTo>> [accessed 09.08.10].

¹⁰⁶ This is somewhat unexpected as the opening titles credit the soundtrack to ‘Steven Foster and Steve Reich’ without mentioning Schoolcraft at all. No doubt because of this, details of the songs are incomplete in books such as Potter’s *Four Musical Minimalists* (170). For corrections, see: Gopinath, ‘Contraband Children’, where transcriptions of the songs and of Reich’s music are provided.

derived from the Schoolcraft song, followed by the appearance of a more ‘mechanical’ passage where singers repeat the word ‘watermelon’ over a rigidly-pulsed piano accompaniment. The voices then gradually expand to form a harmonically-static five-voice canon on different notes of the tonic chord before enacting the process in reverse. As the watermelon chases the crowd up a winding hill, a rousing rendition of Schoolcraft’s chorus kicks in to finish. There is a noticeable similarity between the treatment of Brother Walter’s voice in Part I of *It’s Gonna Rain* – initially presented, transformed by phase-shifting canons, then returned to its original state – and how Reich constructs the soundtrack for this film. As the process of morphing the Schoolcraft song into a canon begins and the singers adopt a robotic tone over Reich’s hammered chord, the music appears to halt its linear progression as if its needle had got stuck or a tape was on loop; any strong trace of the minstrel song is thereby ‘erased’ until its recurrence at the end.

Elements of *Oh Dem Watermelons* found their way into Reich’s performing repertoire during this period through a piece called *Improvisations on a Watermelon*. In retrospect, many features of Reich’s treatment of the minstrel songs became typical of his later work: regular repetition, canonic interplay of multiple voices, tonal melody, and an arch-form structure. The basic material for the ‘improvisations’ was evidently derived from the rigid central canon with its pulsed accompaniment; Carman Moore described Reich and Arthur Murphy as ‘rock solid’ during a performance in 1967 and implied that they might have been imitating tape loops.¹⁰⁷ Reich describes the piece as a set of ‘hand-over-hand piano variations’ consisting of ‘a simple shift of accent in a repeating figure, and a gradual expansion of a two-note figure into a five-note one’.¹⁰⁸ The piece seems to have been abandoned by Reich because of his desire, during the early 1970s, to move away from improvisation toward collective subjugation to musical process: in the first edition of his *Writings on Music* in 1974, Reich states quite clearly that he was ‘not interested in improvisation or in sounding exotic’.¹⁰⁹ Perhaps distancing himself from the piece was also a way to downplay his youthful affiliation with the radical New Left politics of the Mime Troupe and Nelson’s avant-garde satires.

¹⁰⁷ Carman Moore, ‘Park Place Pianos’, *The Village Voice*, Vol. 12/23 (23 March 1967), 15.

¹⁰⁸ Quoted in: Potter, *Four Musical Minimalists*, 170.

¹⁰⁹ Reich, *Writings*, 81.

A Minstrel Show, or 'Civil Rights in a Cracker Barrel' was the last project Reich was involved in with the San Francisco Mime Troupe. From May 1965, Pauline Oliveros had begun providing music for the Mime Troupe's productions instead of Reich, beginning with Brecht's *The Exception and the Rule*.¹¹⁰ Pacifist and New Left opposition to the war in Vietnam was increasing in force on the West Coast, embodied by the Vietnam Day Committee, teach-ins on the University of California at Berkeley campus, and protest rallies in Oakland. The cultural life of San Francisco was also changing, moving away from the jazz-inflected influence of the Beatniks toward that of the younger 'hippie' sensibility, tied to utopian idealism, the emerging Acid Rock genre, and advocacy of LSD.¹¹¹ Reich's friend and musical collaborator Phil Lesh had joined a recently-formed band named The Warlocks; by the end of 1965 they had renamed themselves the Grateful Dead and were performing at Ken Kesey's psychedelic Bay Area 'Acid Tests'.¹¹² On top of this, the Mime Troupe was encountering trouble with the Park Commission regarding a permit for their controversial open-air productions. On 7 August 1965, Davis staged his own arrest as a showcase event during a performance of *Candelaio* (by Giordano Bruno) in Lafayette Park.¹¹³ A trial followed, as did a number of fund-raising 'appeal concerts', organised by the Troupe's then promoter Bill Graham at the studio and subsequently at the Fillmore Auditorium, in order to cover the mounting legal costs. Nelson describes Appeal I, held on 6 November and featuring Jefferson Airplane, as 'the first total mob scene I saw in San Francisco', with the place 'packed body to body with people in some kind of strange new ecstatic frenzy'.¹¹⁴ More and more young people were heading toward this new countercultural mecca. Reich evidently began feeling uncomfortable with the West Coast scene at this point, as he decided to move back to New York in September 1965; Tom Constanten recalls that 'even in the dark green woodsiness of Northern California [Reich] marched to a Manhattan tempo'.¹¹⁵

¹¹⁰ See 'Chronology', in: Davis, *The San Francisco Mime Troupe*.

¹¹¹ See: Kitchell, *Berkeley in the Sixties*.

¹¹² See: Phil Lesh, *Searching for the Sound: My Life with the Grateful Dead* (New York: Back Bay Books, 2006).

¹¹³ See: Davis, *The San Francisco Mime Troupe*, 65–70 & 201.

¹¹⁴ MacDonald, 'We were Bent on Having a Good Time', 40.

¹¹⁵ Constanten, *Between Rock & Hard Places*, 55.

The move was presumably motivated by a mixture of personal and artistic factors, including a recent divorce as well as the increasingly unfamiliar and volatile environment in San Francisco. New York seemed to promise stability and greater opportunities, as well as a different contact base for the young composer. Living downtown in a loft on Duane Street, Reich took various jobs in order to support himself. Although Riley had also moved to New York at a similar time (for different reasons), the two composers neither kept in contact nor sought to collaborate further, in spite of their close association with the Tape Music Center and their earlier friendship. Both Strickland and Potter suggest that this was because Riley felt Reich had unfairly expropriated his repetitious tape-looping techniques.¹¹⁶ Reich now felt disassociated from, and unsympathetic toward, both the uptown academic composers at Columbia-Princeton and the downtown experimental confluence around Cage and Fluxus; he claims to have found himself ‘very much out of place’.¹¹⁷ In addition to this new cultural milieu, Gopinath notes, Reich had arrived in a city ‘caught in the conflagration of 1960s racial politics’.¹¹⁸ His next work for tape would directly engage him in this context, as it concerned the proceedings of a legal case involving the so-called ‘Harlem Six’, six young African-American men who had been unjustly sentenced to life imprisonment for the murder of a White Jewish shop owner.

Come Out

Late in 1965, a few months after his arrival in New York, Reich became acquainted with White Civil Rights activist and writer Truman Nelson. Nelson was in the process of organising a benefit event at Town Hall in order to raise money for a retrial of the six young men alleging that they had been wrongly convicted, as well as raising awareness of police brutality toward African Americans. Reich describes how he was asked to be involved in the project as a sound engineer:

It turned out [Truman Nelson] had ten reels of reel-to-reel tape of interviews with the police, mothers of six black kids, the six black kids...As one of the details on the program, they wanted me to edit these tapes down to some sort of little scenario that Nelson gave me so that it could be used as a dramatic sound collage. I explained to him that that was not my stock in trade, but that I would do it on one condition, and the condition was that if I found something in all this mass of tape that I wanted to

¹¹⁶ Potter, *Four Musical Minimalists*, 117; Strickland, *Minimalism*, 189.

¹¹⁷ Duckworth, *Talking Music*, 299; Strickland, *American Composers*, 41.

¹¹⁸ Gopinath, ‘Contraband Children’, 194.

make a piece out of, he would let me do that...I did do the editing as requested and did find this one little phrase.¹¹⁹

This ‘one little phrase’ was spoken by the then eighteen-year-old Daniel Hamm and consisted of the words ‘I had to, like, open the bruise up and let some of the bruise blood come out to show them’.¹²⁰ For Reich, this phrase was not simply chosen for its graphic quality – describing how Hamm had to physically open his wounds in order to be taken to a hospital for treatment after being brutally beaten and abused – but for its rhythmic and melodic contour. Reich wanted to use ‘raw speech material that really had musical content’ as the basic unit for his phasing manipulations.¹²¹

The composer considers the resulting piece, *Come Out* (1966), to be ‘a refinement of *It’s Gonna Rain*, both in choice of speech source and in the exact working out of the phase shifting process’.¹²² It was released in 1967 by producer David Behrman on the Odyssey LP, *New Sounds in Electronic Music* (32 16 0160), as part of the ‘Music of Our Time’ series, along with works by Richard Maxfield and Pauline Oliveros. *Come Out* became the first of Reich’s works to be widely disseminated and received a number of favourable reviews in the music press. Thomas Willis of the *Chicago Tribune* found it ‘gripping’: ‘a 13-minute refrain alternately soporific and terrifying...It is safe to say that once heard, the work will not be forgotten’.¹²³ Michael Nyman, when interviewing Reich in 1970, noted that it was still the only piece of his that was known in the UK at that time. He then asked Reich to describe its genesis; Reich responded by explaining the significant aesthetic and practical decisions that went into constructing the process:

I first made a loop of the phrase ‘come out to show them’, and recorded a whole reel of that on channel 1 of a second tape recorder. I then started recording the loop on channel 2; after lining up the two tracks, with my thumb on the supply reel of the recording machine, I very gradually held it back (I was literally slowing it down, but at such an imperceptible rate that you can’t bear) until ‘come out to show them’ had separated into ‘come out-come out / show them-show them’ (which is something like two quavers away). At that point I take that two-channel relationship, make a loop

¹¹⁹ Excerpts from an interview with Ev Grimes (Oral History of American Music, Yale University), quoted in: Gopinath, ‘Contraband Children’, 199.

¹²⁰ See ‘The Torture of Mothers’, in: William J. Schafer, (ed.), *The Truman Nelson Reader* (Massachusetts: University of Massachusetts Press, 1989), 231. Hamm’s speech, from which this fragment is taken, is reproduced on pages 234–6.

¹²¹ Duckworth, *Talking Music*, 297.

¹²² Reich, *Writings*, 22.

¹²³ Thomas Willis, ‘Gift Suggestions No. 2: Why Not Test Out the Far-Out?’, *Chicago Tribune* (26 November 1967), 13.

from it, feed it into channel 1 again, hold it back with my thumb so that it is four quavers away from the original sound and can be heard as a series of equal beats, so that it is quite distinct melodically. I then spliced together the two-voice tape with the four-voice tape...I then divided it again into eight voices, separated it by just a demisemiquaver, so that the whole thing began to shake, then just faded it out and again put those two takes together.¹²⁴

The piece was played, according to Reich, as ‘pass-the-hat music’ for the Charter Group’s Town Hall benefit on 17 April 1966, exactly two years after the initial incident in Harlem.¹²⁵ He seemed to think that it was ignored by the audience. Whether this was the case or not, the piece provided him with an opportunity to develop his aesthetic and kick-start his career as a freelance composer in New York.

Although the piece is an ostensibly ‘political’ artwork – in that it is intimately bound to a particular moment within American racial tensions of the 1960s – Gopinath correctly notes that ‘upon further examination the piece appears problematic as a work of advocacy or a straightforward representation’.¹²⁶ Possible interpretations of it may even suggest open contradictions to the politics of Civil Rights, Black Power, and Black Liberation. Lloyd Whitesell remarks upon this in his article, ‘White Noise: Race and Erasure in the Cultural Avant-Garde’.¹²⁷ In it, he points out that the aesthetic ideology of White culture has often sought ‘vitality and even definition through the foregrounding of non-White cultural characteristics’.¹²⁸ In *Come Out*, for example, the audio ‘frame’ is filled by a Black vocal presence (in contrast to a thematically-absent Whiteness), and yet a White author has constructed the frame. In this sense, Reich’s authorial voice occupies a veiled position as the mere instigator of a (supposedly) conspicuous structural matrix. Whitesell’s thesis is that at the outset of both *It’s Gonna Rain* and *Come Out*, when the documentary sound recordings proceed without any external intervention, the composing persona is attempting ‘to disappear within an attitude of rigorous objectivity’.¹²⁹ From this mute position, Reich’s authority over the material is gradually asserted as the fragments of taped speech are manipulated in relentless succession against the form of the original text. Through these distorting processes, semantic articulation and expressivity are drained

¹²⁴ Nyman, ‘Steve Reich: An Interview’, 229.

¹²⁵ Strickland, *American Composers*, 40; see also: Gopinath, ‘Contraband Children’, 202.

¹²⁶ Gopinath, ‘Contraband Children’, 196.

¹²⁷ Lloyd Whitesell, ‘White Noise: Race and Erasure in the Cultural Avant-Garde’, *American Music*, Vol. 19/2 (Summer 2001), 168–89.

¹²⁸ *Ibid.*, 169.

¹²⁹ *Ibid.*, 177.

from their subjects, and they ‘slowly alter from foreground performers to background noise’.¹³⁰ The true (but tacit) subject of the work is revealed to be Reich himself – the dominating White Western composer in strict control of his ‘materials’. Whitesell argues that this change in perspective encodes a certain ‘relational symbolism’ in that the musical processes move toward ‘an abstract, metaphorical Whiteness, mesmerizing in its unfathomable remoteness from the material Black vocality of the opening’.¹³¹ Thus the singular Black figure is systematically – even brutally – dissolved within an externally-imposed mechanical framework which serves to blur his distinct racial identity.

The issue Whitesell has with pieces such as *Come Out* is that they perpetuate underlying cultural politics associated with constructions of race. He argues that the white authorial voice in these works traditionally takes a subject position which is assumed to speak for all – ‘this follows from the assumption of a White world, where Whiteness is normal and merely part of the backdrop, not a salient feature’.¹³² Whiteness is therefore excluded from racial discourse by its overbearing presence and assumed to be ‘default’ or lacking in defining characteristics. However, rather than lacking any, these very characteristics have helped to construct an ideology which paints them as being universal values. This notion formed the basis of colonialism and indeed of racial identity itself – ethnic stereotypes forced upon Others who do not share a likeness to Self. Whitesell’s conclusion is that ‘by rescuing the category of whiteness from its position of invisibility, we can become more aware of how that position claims for itself the normative state of existence’ in our particular society.¹³³

Such an interpretation utterly contradicts Reich’s idea that his tape processes ‘intensify’ the meaning and melody of what their Black subjects say. When Reich states openly that ‘*Come Out* is a Civil Rights piece’, we must be careful to differentiate between the composer’s cultural politics – his intentions or desired affiliations – and contingent, fluctuating, and more problematic interpretations of what we might call the work’s ‘aesthetic ideology’, which relate to its varying

¹³⁰ Whitesell, ‘White Noise’, 177.

¹³¹ *Ibid.*

¹³² *Ibid.*, 183.

¹³³ *Ibid.*, 185.

meanings, reception, and criticism.¹³⁴ Because of this, it is necessary to note that the piece does not encode a singular or clearly-defined political position. In his chapter on *Come Out* for the 2009 publication, *Sound Commitments: Avant-Garde Music and the Sixties*, Gopinath interrogates the work's aesthetic ideology, as well as Reich's involvement in the Harlem Six case.¹³⁵ He, too, argues that the piece can be seen to 'enact a certain degree of sublimated violence against Hamm', exploiting his suffering for aesthetic and financial gain; Reich apparently neither paid royalties to Hamm nor donated any profits to the retrial.¹³⁶ Noting the absence of any clear account of the Harlem Six incident in music criticism to date, Gopinath pieces together a narrative from various contemporary sources, telling the appalling story of what happened in New York in April of 1964 and its repercussions:

On the 17th of that month, a young black schoolgirl 'brushed against a crate of grapefruit' at a fruit stand, knocking some of the fruit onto the ground. Other schoolchildren picked up the fruit and tossed them about 'like baseballs'. The proprietor blew his whistle to attract the attention of the beat policeman, but riot-control police appeared and began to attack the children with clubs. A few people intervened, including a number of black teenagers who began to fight back and exhort the surrounding crowd to do the same. Several people, including teenagers Daniel Hamm and Wallace Baker, were taken to the 28th precinct police station and beaten mercilessly. (Baker's injuries resulted in serious brain damage from which he never recovered.) The next day, the youths and the others were released from the station...The incident, later known as the Little Fruit Stand Riot, would surely have been forgotten had it not been for a subsequent event in which the Hungarian Jewish proprietor of a used clothing store on 125th St. and Fifth Ave., Margit Sugar, was attacked and stabbed to death. Looking for a group of suspects upon which to pin the murder charges, officers and detectives identified a group of six friends who had previously successfully resisted arrest on an unconnected charge. Within hours of the murder, Hamm and Baker, and their friends William Craig, Ronald Felder, Walter Thomas, and Robert Rice, soon to be known as the Harlem Six, were rounded up by the police, intimidated and beaten again, and pressured to sign confessions...Denied independent representation, the six were all found guilty of murder and sentenced to life imprisonment...In the following years, the case gained increasing notoriety as an example of the unjust state machinery of the New York (and U.S.) justice system, and a growing number of international intellectuals and celebrities began to demonstrate their support for the appeals case and retrials of the six...Toward the end of the retrials it became increasingly clear that the district attorney's case against the six was based entirely on fabricated evidence, and that the prosecution's star witness, Robert Barnes, was probably involved in the murder himself...Hamm was finally released from prison in the summer of 1974.¹³⁷

¹³⁴ Quotation from: Strickland, *American Composers*, 40; see: Gopinath, 'Contraband Children', 196.

¹³⁵ Sumanth Gopinath, 'The Problem of the Political in Steve Reich's *Come Out*', in: Robert Adlington (ed.), *Sound Commitments: Avant-Garde Music and the Sixties* (Oxford: Oxford University Press, 2009).

¹³⁶ *Ibid.*, 122 & 142. Reich also has also misrepresented the case in various interviews since.

¹³⁷ *Ibid.*, 124-6 & 144.

Taken from Hamm's taped testimony, recorded shortly after the Little Fruit Stand Riot (probably at the Friendship Baptist Church), Reich's initial repetition of the 'documentary' image – picturing Hamm during a moment of ingenuity – initiates a quasi-ritualistic tone to the opening. The actual text used for the phasing then seems to 'sanitize' the violent and graphic elements of the original phrase by removing 'open the bruise up' and 'bruise blood'.¹³⁸ Adding to Whitesell's analysis, Gopinath argues that it is possible to perceive the relationship between Reich's compositional process and Hamm's voice as figuring the state and the individual.¹³⁹ Conversely, he continues, one could also hear the resulting multiplication of Hamm's voice as representing the shouts of protestors, urging the authorities to 'come out' and show themselves for what they are. Reviewing *New Sounds in Electronic Music* in 1967 for the *New York Times*, critic Theodore Strongin seemed to agree: 'protest-rock already exists and now Reich has given us protest-electronic'.¹⁴⁰ Strongin, however, misrepresents the case in his article and ends with the remark that 'as music, *Come Out* is so hypnotic that it loses the strong indignation of protest' – a potent reminder of the fundamental political ambivalence of the way Reich treated difficult subject matter in his early 'race works'.¹⁴¹

§

The unavailability of Reich's work from the early 1960s, combined with a perception that it was essentially trivial juvenilia, has prevented serious engagement with its context. This has not been aided by Reich's own decision to begin his formal oeuvre with *It's Gonna Rain* (1965), effectively dismissing his formative years in San Francisco working alongside R. G. Davis in the Mime Troupe and with Robert Nelson on various avant-garde film projects. It was his involvement with these two prominent figures that led Reich toward the creation of more socio-politically engaged works than he had been pursuing whilst at Mills College. His move away from serialism and

¹³⁸ The way Hamm happens to pronounce 'bruise' the second time sounds more like 'blues' and thus, Gopinath proposes, 'metaphorically draws the experience of the Harlem Six into the affective and psychological state of "the blues" and, by extension, African American historical oppression'. See: Gopinath, 'The Problem of the Political', 134.

¹³⁹ *Ibid.*, 136.

¹⁴⁰ Theodore Strongin, 'When Teen-agers Get to College', *New York Times* (10 December 1967), 36.

¹⁴¹ *Ibid.*

‘Third Stream’ improvisation, followed by a keen embrace of repetitive tape looping, was also no doubt informed by his intimate contact with Terry Riley and other composers at the Tape Music Center during this period. Reich’s repression of the telling subtitle ...*After Listening to Terry Riley* perhaps even signals a certain amount of anxiety over influence, linked less to *In C* (which Reich is keen to stress), but rather to tape works involving the looped manipulation of spoken fragments, such as *Music for ‘The Gift’*.¹⁴² The premise, upheld by scholarship following in the path of literary theorist Harold Bloom, than an artist’s own testimony is the least reliable source of information on forebears points toward the fact that acknowledged debts are often deployed as diversions to hide more pervasive, antagonistic ones. Uncovering Reich’s early years on the West Coast in a milieu where he was in contact with other composers of electronic music thus allows his work to appear contingent, part of a larger ‘process’ of tape music’s development in the early 1960s, situated within the intricate cultural nexus of San Francisco. It is interesting to note that when reviewing Reich’s first solo concert at the Tape Music Center in January 1965, Dean Wallace of the *San Francisco Chronicle* argued that ‘his stuff is reasonably tame, as tape music goes...and it notable lacking in that over-rated attribute, originality’.¹⁴³



¹⁴² The phrase ‘anxiety of influence’ is taken from Harold Bloom’s theory of poetic influence. See: Harold Bloom, *The Anxiety of Influence: A Theory of Poetry* (1973; Oxford: Oxford University Press, 1997), and *A Map of Misreading* (1975; Oxford: Oxford University Press, 2003). Another useful source on this topic is: Richard Taruskin, ‘Revising Revision’, *The Journal of the American Musicological Society*, Vol. 46/1 (April 1993), 114–38.

¹⁴³ Dean Wallace, ‘Newcomer to Tape Music’, *San Francisco Chronicle* (29 January 1965), 41.

(3)

Intermezzo: Two Missing Links

[Trapped in a lab...]

Melodica

Reich's *Melodica* (1966) has neither been included in any retrospective collection of the composer's work on CD nor commercially released during the 1960s or '70s. It did, however, feature in the 1986 three-LP compilation, *Music from Mills*, issued in celebration of the centennial of Mills College's chartering.¹ The work itself exists as a tape composition of circa 10:43 duration, created by Reich in a similar manner to *Come Out*, and is currently available (as a digital transfer to CD copy) for performance rental via one of Reich's publishers, Boosey & Hawkes. Reich's programme note for the piece is as follows:

Melodica is composed of one tape loop gradually going out of phase with itself, first in two voices and then in four. The original loop is of myself playing the four note pattern on the melodica, a toy instrument. I dreamed the melodic pattern, woke up on May 22nd, 1966, and realized the piece with the melodica and tape loops in one day...It proved to be both a transition phase shifting process, and the last tape piece I ever made.²

A hand-written transcription is reproduced in the composer's *Writings on Music*, along with a description of the piece's form and construction.³ It is a particularly interesting work within Reich's oeuvre as it involves the first and only instance of a pre-recorded musical fragment being manipulated via tape equipment. This contrasts with Reich's earlier use of 'found sounds' and spoken voices to create collages and loops, as well as with his later use of live performers or performers alongside a repeating tape track. The piece is also intriguing as Reich clearly states in the score that after recording the initial motif in unison on both channels, 'channel

¹ Reich had studied composition as a graduate student at Mills College (during 1962 and 1963) with Luciano Berio and the elderly Darius Milhaud (see Chapter 2). It is somewhat ironic that *Melodica* is included on this LP, as it is a piece clearly in aesthetic opposition to his academic training.

² <<http://www.boosey.com/licensing/music/Steve-Reich-Melodica/3275>> [accessed 16.07.10].

³ Steve Reich, *Writings on Music, 1965–2000* (Oxford: Oxford University Press, 2002), 23.

two begins to slowly move *ahead* of channel one'.⁴ Practically, however, this was probably not the case (as we have seen from his previous tape compositions) because the tape phasing effect was created by careful manual retarding of the supply reel in order to delay one voice systematically against the other; very gradually speeding up one loop at a steady rate would have been much harder to achieve on the primitive equipment to which Reich had access. With this in mind, if the score to *Melodica* is re-notated with the stationary voice as channel two instead of channel one, the familiar flanging effect emerges. But this is only an illusion. In fact, it doesn't matter whether the phasing voice is delayed or accelerated during the process: the same patterns are produced either way. The only difference is the placement of the pattern within the bar – an essentially imperceptible effect in the context of metrically-ambiguous repeating patterns. What we are dealing with, therefore, is a discourse which stresses perceptual forward momentum over compositional technique. What seems to have obsessed Reich was the notion that one voice was actually moving ahead of the other, rather than one slowing down and the other *appearing* to move ahead. Robert Fink also notices this aspect of the phasing process in relation to its live application, arguing that 'there is no practical or perceptual reason why the phasing player should not slow down very slightly as he initiates the shift'; instead, we are presented with a continuous accelerando which doesn't actually get any faster.⁵ In a *South Bank Show* interview with Melvyn Bragg, Reich clarifies the matter, proposing that the acceleration approach – which only became realistically achievable with live musicians – adds tension and excitement to performance.⁶

What *Melodica* shares with Reich's other phase-shifting tape pieces is the fact that at a certain point in the primary process he splices channel one and two into a fixed combination which is looped and recorded again on both channels in unison and then used as the basic unit for another round of canonic interplay.⁷ This practice should alert us to the important fact that as much as Reich liked to portray his processes as impersonal, merely set-up-and-let-run scenarios – especially during the essay 'Music as a Gradual Process' – they are very tightly controlled and involve

⁴ Reich, *Writings*, 23 [emphasis added].

⁵ Robert Fink, *Repeating Ourselves: American Minimal Music as Cultural Practice* (Berkeley: University of California Press, 2005), 106.

⁶ *The South Bank Show*: 'Steve Reich' (Season 31/11), LWT 2006 [first broadcast ITV 1, 10 December 2006].

⁷ See: Reich, *Writings*, 23.

significant aesthetic decisions: the initial process in *Melodica* is disrupted and a new process is started in the middle which itself is not fully run through either. It is thus possible to feel the presence of the composer rather than the uninflected logic of a systematic process. The aesthetic element is clear when Reich states that ‘the last relationship is held steadily for more than 2½ minutes to permit the listener to examine the sound in detail’.⁸ Why this particular relationship over any other? We must conclude that Reich did not simply accept the results of his processes passively, but actively sought out relationships he found musically interesting – a practice which becomes more clearly manifest in his large-scale works of the 1970s.

Melodica was first presented in June 1966 at the Park Place Gallery, New York. It was also presented as part of a concert of Reich’s music in March 1967, also at the Park Place. Reviewing this performance, *New York Times* critic Grace Glueck suggested that Reich’s ‘repetitive figures performed on the melodica...appear[ed] to be just as modular as the art’, whilst Carman Moore of the *Village Voice* argued that ‘the ear’s reaction to this music is basic, since a pulse is always present, the matrix becomes familiar immediately and the fact that one can be surprised by the yield of one simple phrase of music comes as a surprise’.⁹ In its original context, therefore, the piece appears to have been well received: it evidently meshed with the aesthetic ambience of the downtown art scene with its repetitious modularity, seemingly impersonal construction, and uninflected sound. But what caused Reich to neglect the piece? Two possibilities suggest themselves: firstly, the four-note pattern is, semantically, far simpler than the speech fragments of his previous phase-shifting works for tape; secondly, the metric regularity, melodic shape, implied modality (using E, B, and A), and short length of the fragment make its resultant canonic superimpositions rather lacking in diversity and elegance – the final held relationship yields little ambiguity or potential for sustaining interest.

Figure 3.1 serves to demonstrate these points. It reproduces the score to *Melodica* in its entirety, using unfilled diamond note heads to represent the phasing voice. From this simple analysis, it is clear why the piece may not have been

⁸ Reich, *Writings*, 23.

⁹ Grace Glueck, ‘The Park Place Puts on a Stunner’, *New York Times* (11 March 1967), 25; Carman Moore, ‘Park Place Pianos’, *The Village Voice*, Vol. 12/23 (23 March 1967), 15.

considered successful by Reich as he further developed his idiosyncratic compositional technique. The tape splice can be seen here between bars 3 and 4, showing the initial process cut short and a new process beginning with a second basic unit derived from an interlocking of the two channels. Bar 5 is saturated with repeating dyads, emphasising the simple binary construction of the basic unit but yielding few potential resulting patterns. Bar 7 seems to be the most interesting aggregate; Reich, however, chooses the last pattern – merely a repeating open fourth (E – A) followed by an octave (B) – to focus upon. This pattern is pre-empted in bar 6, where a retrograde of the motif is found twice in between the initial basic unit. The fact that this final aggregate reduces the original pattern’s length from one bar to two semiquavers means that the piece seems to accelerate whilst simultaneously losing melodic differentiation; its linear structure points us toward this conclusion, and the listener cannot help but feel the presence of an author figure directing the progress. Within this rigid framework, perceptual independence seems to have been limited to an uncomfortable extent: because the final aggregate is so simple, the listener’s freedom to find hidden melodies and patterns is effectively restricted, and the piece has the capacity to become tedious. One final factor as to why Reich has played down the importance of this particular work may be that the transition from *Come Out* (1966) to *Piano Phase* (1967) appears much more striking with the omission of *Melodica* as a link. Keith Potter even suggests that there is a ‘hint of the gimmick’ in the piece – something Reich himself may have felt, as he later described 1966 as ‘a very depressing year’ as he ‘began to feel like a mad scientist trapped in a lab’, alone with his mechanical phasing processes.¹⁰

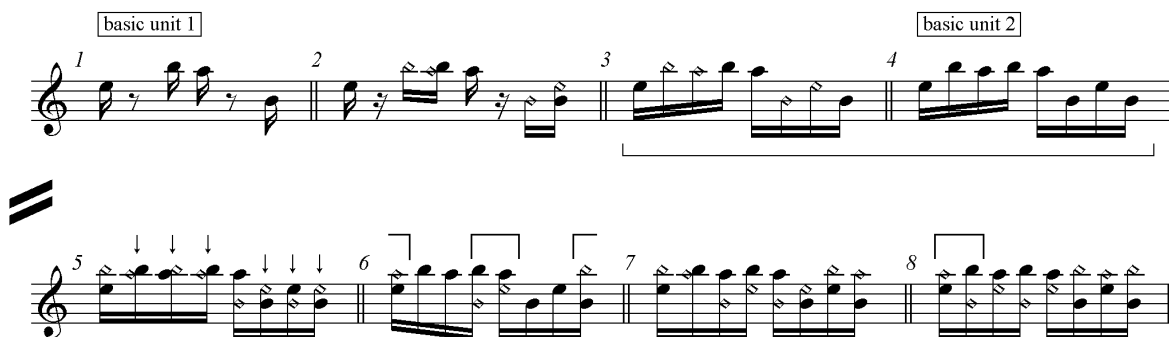


Figure 3.1: analysis of *Melodica*

¹⁰ Keith Potter, *Four Musical Minimalists: La Monte Young, Terry Riley, Steve Reich, Philip Glass* (Cambridge: Cambridge University Press, 2002), 179; Michael Nyman, ‘Steve Reich: An Interview with Michael Nyman’, *The Musical Times*, Vol. 112/1537 (March 1971), 230.

Reed Phase

Perhaps the most striking omission from the accepted Reich canon is *Reed Phase* (also 1966), originally titled *Saxophone Phase* and written for Reich's long-time associate Jon Gibson. The only mention Reich makes of the piece in his *Writings* is during a 1973 article entitled 'Steve Reich and Musicians':

In the fall of 1965 I returned to New York and by late 1966 I had formed a group of three musicians: the pianist Art Murphy, the woodwind player Jon Gibson, and me playing piano. This ensemble was able to perform *Piano Phase* for two pianos; *Improvisations on a Watermelon* for two pianos (later discarded); *Reed Phase* for soprano saxophone and tape (later discarded); and several tape pieces.¹¹

Reed Phase was first performed by Gibson at the same concert that saw the premiere of *Piano Phase* at Fairleigh Dickinson College, New Jersey, in January 1967.¹² It was performed again during March 1967 at the Park Place Gallery – 'a well attended and glittering affair, with prism sculpture all around the white room', according to Carman Moore.¹³ Figure 3.2 is a photograph of Gibson (and Reich, visible through



Figure 3.2: Jon Gibson performing *Reed Phase* at the Park Place Gallery, 1967. Photograph by Peter Moore <www.jongibson.net>

Charles Ross's sculpture) during one of these concerts. Moore described *Saxophone Phase* as his 'favourite experience...done with a phenomenal breathing trick and first-rate musicianship by Jon Gibson', with the result being 'shrill, exact, and rich'.¹⁴ This 'trick' was Gibson's circular breathing, an advanced technique used by some wind players to produce an uninterrupted flow of air for an indefinite period – an effect achieved by breathing in through the nose whilst simultaneously blowing out through the mouth using air stored in the cheeks. In his liner notes to the CD *In Good*

¹¹ Reich, *Writings*, 79.

¹² See: Potter, *Four Musical Minimalists*, 181. This information is unfortunately incorrect in David Hoek's *Steve Reich: a Bio-bibliography* (Westport: Greenwood Press, 2002).

¹³ Moore, 'Park Place Pianos'. During his review Moore refers to the piece, somewhat tellingly, as 'Saxophone Phrase' – presumably a mistake on his, or the editor's, part.

¹⁴ *Ibid.*

Company, Gibson suggests that *Reed Phase* is probably the first formal Western composition to require circular breathing in this way.¹⁵

What is most notable about *Reed Phase*, however, is the fact that it is the first of Reich's compositions to transfer the 'mechanical' phase-shifting process, seemingly indigenous to tape loops, to live musical performance. In interviews, Reich never mentions the piece as representing this crucial transition from his electronic 'laboratory' to the concert platform, preferring instead to use the example of *Piano Phase* and its early development with Arthur Murphy. In response to Edward Strickland's question 'How did you move from the tape loops into the live pieces?' Reich says the following:

At first I didn't see how phasing fit into the rest of Western musical history or any musical history. Clearly human beings can't do this...I felt I had discovered something which was addicting me...For four or five months I just didn't know what to do. Somewhere in late '66 I sat down at the piano, made a tape, and said, 'Okay, enough of this. I'm the second tape recorder'.¹⁶

It is hard to tell from the available sources whether this piano / tape experiment actually preceded the composition of *Reed Phase* or not. What we can conclude, however, is that before Reich wrote his pieces which involved musicians engaging in the phasing process as an ensemble, he worked with a piece which involved one live performer phasing against an ostinati tape loop – what seems like a logical step from electronics to live performance. As the singular basic unit of *Reed Phase* is quite simple in comparison to the four of *Piano Phase*, it may be sensible to conclude that it represented a kind of primary study in applying phasing to musical performance; perhaps Reich even wished to test the process out with someone other than himself, knowing his own limitations as a performer and Gibson's breathing technique. During the mid-1960s, the soprano saxophone was also enjoying somewhat of a renaissance thanks to John Coltrane and in particular to his album *My Favourite Things* (1961). Whilst in San Francisco between 1961 and 1963, Reich admits that he went to see Coltrane play live 'five or six or seven times during each of his stints' at the Jazz Workshop.¹⁷ Reich describes following Coltrane's direction over that of the

¹⁵ Jon Gibson, liner notes to: *In Good Company*, Point Music 434 873-2 (1992).

¹⁶ Edward Strickland, *American Composers: Dialogues on Contemporary Music* (Indianapolis: Indiana University Press, 1991), 40 [emphasis in original].

¹⁷ *Ibid.*, 38.

academic serialists as a kind of ‘moral decision’ based on what he saw as the ‘honesty and authenticity involved’ in Coltrane’s playing – echoing the ‘countercultural’ veneration of ethnically-differentiated Others as possessors of an exotic and absent integrity.¹⁸ What also seemed to have struck Reich was Coltrane’s use of stasis: ‘he was working with one or two chords. That was the modal period, when there was a lot of music happening based on very little harmony’.¹⁹ Terry Riley (also friendly with Jon Gibson) was being drawn to the saxophone at this time: arriving in New York in 1965, Riley recalls being impressed by Coltrane’s sound, as well as La Monte Young’s playing, and wanting to write a piece for the soprano.²⁰

Correspondent to the simplicity of *Reed Phase*’s basic unit (consisting of the four notes D, A, G, and C forming a repeated five-quaver pattern) is the simplicity of its structure – something rather different from any other work of Reich’s during this period. Jon Gibson provides a description of the piece:

Reed Phase consists of a continuously repeated melodic pattern played on pre-recorded tape while the live musician performs the same melody, starting in unison with the tape and then gradually accelerating to a slightly faster speed, thereby ‘phasing’ slowly across the recorded melody. A middle section becomes more dense with the addition of a second pre-recorded saxophone track a beat ahead of the first, to phase across, which then returns to a single track, creating an overall ABA structure.²¹

Reich published the score over three pages in *Source* magazine in 1968.²² The first page consisted of a photograph of the composer, a brief biography, a list of works, and a paragraph on circular breathing, along with the piece’s alternative title of *Three Reeds*. This alternative title was to be used if performers decided to substitute the soprano saxophone for another suitable instrument and perform the piece live (suggestions were clarinet, oboe, accordion, or reed organ – the same instrument, however, being used for each line); a substitution could also be made for live solo performance with two-channel pre-recorded tape. The following two pages were

¹⁸ Strickland, *American Composers*, 38. See: Howard Brick, *Age of Contradiction: American Thought and Culture in the 1960s* (Ithaca: Cornell University Press, 1998), Chapter 4.

¹⁹ William Duckworth, *Talking Music: Conversations with John Cage, Philip Glass, Laurie Anderson, and Five Generations of American Experimental Composers* (New York: Da Capo Press, 1999), 294.

²⁰ *Ibid.*, 274–5. Riley wanted to learn the instrument in order to create a new piece: Jon Gibson took him to Manny’s and helped pick out a saxophone. The result would be *Dorian Reeds*, released on the album *Reed Streams*, Mass Art Inc. M-131 (1965).

²¹ Gibson, liner notes to: *In Good Company*.

²² *Source: Music of the Avant Garde*, #3 (1968), 69–71.

taken up by the score and a set of detailed performing instructions describing the different approaches for live and semi-live performance.²³ If a solo performer were to play the piece – as Jon Gibson presented it – then a tape was to be made by the performer which consisted of two loops switched on and off by an assistant: the basic unit (channel 1) and the basic unit phased by a distance of one quaver (channel 2).

Currently, there are only two commercially-available recordings of *Reed Phase*, both played on soprano saxophone – one by Jon Gibson on *In Good Company* (Point Music 434 873-2, 1992) and one by Ulrich Krieger on *Early American Minimalism* (Sub Rosa SR218, 2007). They represent two contrasting interpretations of the piece in a number of ways. Firstly, Gibson transposes the score up a tone so that the result (on a B_♭ soprano saxophone) is as written (i.e. he plays a tone higher – E, B, A, D – to achieve the correspondent concert-pitch sequence D, A, G, C); Krieger simply plays the score unaltered, thereby reproducing the pattern a tone lower than shown (i.e. C, G, F, B_♭). This ambiguity is fostered by the lack of specificity in Reich's instructions – we are not told whether it is a transposing score or a concert-pitch transcription. This makes a difference to the feel of the two performances: Gibson's is slightly higher in pitch and utilizes a right-hand palm key for the top D, therefore giving it a brighter, shriller tone quality. Krieger's doesn't use the neck keys and so retains a more mellow tone; it also has a somewhat more noticeable emphasis on the lowest note as all remaining fingers are required to be placed down in the move from A to D. A further difference between the two interpretations is their overall time: Gibson's takes around 6:10, whereas Krieger's lasts substantially longer, at around 14:23. Both play at a speed of circa ♩ = 148, which fits within Reich's prescribed bracket of ♩ = 132–160; the difference is in the speed of the phase shifting transitions and the number of repetitions of the units themselves. Reich does not specify the number of individual repetitions, but he does suggest a phasing time of 'approximately 30 to 45 seconds' and that the tape loops be made to last 'at least fifteen minutes duration'.²⁴ Gibson repeats each 'locked' phase relationship four times before accelerating; Krieger takes a more liberal approach, varying the repetitions between fifteen and twenty-five times per unit. Neither performer quite manages the

²³ There appears to be a mistake in the score: in unit 5 the final note of the live reed player (or reed 2) should be a G rather than a D in order to fit the prescribed phasing of the basic unit.

²⁴ *Source*, #3 (1968), 70.

very slow transitions Reich proposes: Gibson's tend to lie between ten and twenty seconds, whereas Krieger's are usually between twenty and thirty seconds. Reich is quite clear on this matter:

The performer's tendency to move directly from one 'rational' relationship into the next should be resisted. He should attempt to move smoothly and continuously – the slower the better – spending due time within the dotted lines, or 'irrational' relationships.²⁵

This is something evidently difficult to achieve – and thus sometimes difficult to perceive – and may have been a reason why Reich withdrew the work. It is easier to hear these transitions and the various relationships in Gibson's recording, as all voices have equal weight within a clearly-articulated and uniform texture; in Krieger's more unsettled version, the listener can easily lose focus of the process.

It is worth asking why Reich has decided to distance himself from the piece, especially with regard to its crucial position as a link in the chain of events which connect his purely electronic music (on tape) to his later live (or semi-live) music for soloists and ensembles. When questioned about *Reed Phase*, Gibson argued that it was undoubtedly a part of Reich's development as a young composer: 'it is perfectly within his rights to retire a piece. However, I think it's another matter to try and will it out of existence. It happened'.²⁶ The work seems to have been abandoned by Reich for a number of reasons. Firstly, the tone quality of a soprano saxophone played loudly and unrelentingly in its upper register (all parts are simply marked *f* in the score) tends to produce overtones that contribute a slightly abrasive quality to the piece, which becomes tiresome after so many repetitions (especially if Reich's tape duration is to be followed). Secondly, the ternary structure seems too obvious and unnecessary when the basic unit is so ingenuous. Thirdly, when phased against itself, the melodic and rhythmic contour of the basic unit only produces a small number of patterns, which fail to create the ambiguities necessary to sustain perceptual interest in the process. As a result, Reich apparently finds the piece 'repetitious and boring'.²⁷ A brief analytical reading will serve to demonstrate the above points.

²⁵ *Source*, #3 (1968), 70. Here, 'dotted lines' refers to Reich's method of notating the phase shifting transitions between 'rational' held relationships in the score.

²⁶ From personal email correspondence, summer 2010.

²⁷ Quoted in: Potter, *Four Musical Minimalists*, 181.

Figures 3.3, 3.4, and 3.5 show the ‘rational’ relationships within the phase-shifting cycles of *Reed Phase*’s three sections – unfilled diamond note-heads representing the live ‘phasing’ voice and filled note-heads representing pre-recorded tape.²⁸ The 5/4 notation used is Reich’s, demonstrating the displacement of perceptual downbeat for each repetition of the basic unit as it is metrically recontextualised in the second half of each bar. This lends each repetition a subtly different quality with quaver pairs seeming to ascend in the first half of the bar and descend in the second. The analyses show that each cycle is effectively a palindrome – a natural outcome of the phasing process which proceeds in retrograde after its midpoint. In the first and third sections, pattern B is found twice (although metrically displaced the second time) in between pattern A (itself displaced on its second appearance), which is framed by the basic unit (although not in the truncated third section). This means that the phasing transitions between bars 4 and 5 (as well as 16 and 17) do not function to change the repeating unit, only its position relative to the downbeat, meaning there is little or no perceptual difference between the consecutive bars. Looking at the second section, now in three voices thanks to the addition of a tape line consisting of pattern A, the palindromic sequence has a fulcrum – a unique unit within the piece, pattern D. This pattern sits in the middle of a mirror structure of A followed by pattern C, reversed after the appearance of D. The form of the piece, therefore, seems to reflect its (macro-)ternary structure in the (micro-)palindromes of its three individual sections, emphasising an ostensible economy of compositional input and perhaps even suggesting the presence of certain ‘secrets of structure’ which are not readily available to the listener. However, the contrast achieved by the large ternary structure and its internal processes are slight due to the melodic material used.

Figure 3.6 shows the four aggregate patterns produced by Reich’s phase-shifting processes during the piece. The diagram demonstrates that pattern C is produced through a rational combination of patterns A and B; patterns A and C are further linked by their repeated chords, marked with small arrows, and the pervasive presence of an open fifth. Figure 3.6 also shows the approximate percentage of the

²⁸ Bars 8 and 14 have been omitted as they are merely non-functional repeats.

piece each pattern takes up based on the number of times it appears in the score: from this, it is clear to note that the vast majority of the piece is concerned with patterns A

Figure 3.3: analysis of *Reed Phase*, first section

Figure 3.4: analysis of *Reed Phase*, second section

Figure 3.5: analysis of *Reed Phase*, third section

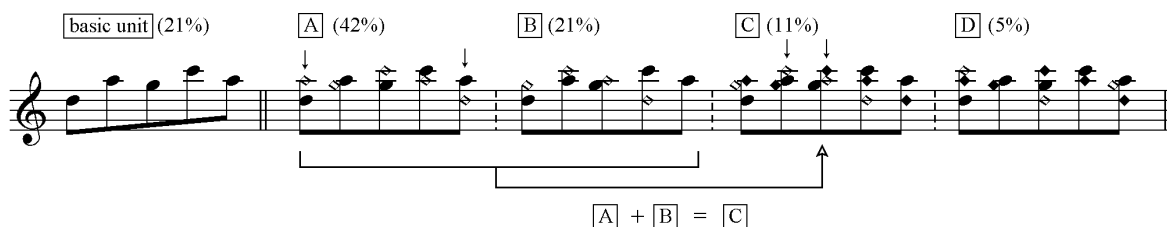


Figure 3.6: aggregate patterns in *Reed Phase*

and B (and their resultant pattern C). Performance, of course, will tend to disrupt such statistics, but if the score is followed and the numbers of repeats as well as the duration of the transitions are kept the same, this proves to be a fair guide. The piece is thus saturated with a similar sound aggregate – a somewhat inevitable result of a piece which uses only four pitch classes. The resultant patterns, when played at the recommended speed on a high reed instrument, tend to lack differentiation and therefore perceptual interest. In other words, the piece can easily end up sounding rather amorphous and thus, like *Melodica*, limit the intuitive freedom of listeners. Even the ‘irrational’ transitions that Reich was so keen to promote begin to lose their novelty when each pattern is so similar, especially at the lengths he was proposing. Nevertheless, the piece does have a remarkable clarity of structure, overt modularity, and an impersonal, almost electro-mechanical, sound world, which all evidently contributed to its success in 1967. Its favourable reception within the fashionable downtown New York gallery scene of the late 1960s was no doubt due to this reflection of contemporary aesthetics in the plastic arts; many of those receiving the piece for the first time would have been open to Reich’s concept.

§

Questioning these two crucial ‘missing links’ in Reich’s early work – pieces often downplayed in the literature – serves to ground the composer more fully in his socio-cultural context and de-idealise the narrative he has come to construct for himself. These pieces were central to his group’s performing repertoire during the late 1960s and thus reveal a more rounded picture of the composer’s development toward what are considered his first ‘mature’ works. It is possible to perform a critical investigation such as this whilst bearing in mind why Reich sought to distance himself

from certain works; the project is not to create an even larger canon that includes everything he wrote, but to uncover the ways the canon we are presented with – via retrospective CD recordings and popular discourse in the media – has been constructed and disseminated, and what it happens to leave out and why. With this knowledge of what lies outside of our view, we can begin to build a clearer and more honest picture of Reich as a creative artist – a human being whose ideas often do not follow neat, logical, or compelling paths to the creation of new works and who maybe wishes to reconfigure aspects of his development for personal or political reasons.



(4)

Teleological Mechanics and the Phase-Shifting Pieces of 1967

[Millions of burgers sold...]

Echoing many similar passages in overviews of twentieth-century ‘art’ music, Eric Salzman argues that the minimalist aesthetic abandons structural dialectics – and with it conventional forms of tonal narrative – while functioning as:

A reaction to information overload, to the buzzing, blooming confusion of a complex industrial society with its multiple and contradictory communications systems and messages. It reacts against the constant, shallow emission and exchange of information by seeking out singular deep experiences of limited, isolated events and by pushing the frontiers of perception inward.¹

I would agree that Reich’s music of the late 1960s does indeed seek out significant experiences of individual phenomena and challenge traditional modes of perception. However, the simplistic notion that his music rejects teleological thinking and is merely an ascetic reaction *against* modern society desperately needs re-addressing. We might instead wonder (along with Edward Strickland) ‘whether Minimal art was, in addition to a contemplative antidote to the chaos, a reflection of less obvious but equally pervasive features of [that] society’.² In his book *Repeating Ourselves*, Robert Fink’s central argument is that Reich’s brand of minimalism ‘is actually maximally *repetitive* music’ and that as cultural practice this excess of repetition ‘is inseparable from the colourful repetitive excess of postindustrial, mass-mediated consumer society’ – an argument which utterly contradicts Salzman’s thesis.³ Reich’s music could thus have the potential to implicate its creators, performers, and listeners in the late-capitalist commercial culture of post-Second World War ‘affluent society’ in the United States and its associated mass-media advertising strategies. Taking a

¹ Eric Salzman, *Twentieth-Century Music: An Introduction* (Englewood Cliffs: Prentice Hall, 2002), 214.

² Edward Strickland, *Minimalism: Origins* (Indianapolis: Indiana University Press, 2000), 282.

³ Robert Fink, *Repeating Ourselves: American Minimal Music as Cultural Practice* (Berkeley: University of California Press, 2005), x [emphasis in original].

hermeneutic approach to the music has the potential to reveal previously obscure meanings that might signify much broader socio-economic patterns of repetition.

It is more than mere coincidence, Fink proposes, that the pulsed repetition-structures of American minimal music arose around 1965, ‘the precise moment that the complete transformation of American network television by commercial advertising established the medium’s distinctively atomised, repetitive programming sequence’.⁴ His project is to connect the distinctive repetition found in early minimalist music to this cultural context via a claim of materialist-historical causality, directly relating it to the post-war economic context:

As rising productivity threatened to flood industrialized economies with a glut of goods, attention shifted to theories of desire, and desire *creation*, that could rationalize a society dependent for the first time on the systematic mass production of desire for objects – in other words, a society dependent on advertising.⁵

Repetitive marketing strategies emerged during this period to create a fully-rationalised media system capable of mass-producing ‘desire’ for new products within a competitive late-capitalist marketplace. In a 1967 article on Robert Nelson – the filmmaker with whom Reich collaborated closely between ’63 and ’65 – Earl Bodien even proposed that Nelson’s rapid-cut films self-consciously reflect contemporary TV advertising tropes for satiric effect: ‘let’s face it, there’s *no one* around who could satisfy all the desires the ad men arouse’.⁶ At a similar time, repetitive cultural practices of many different varieties were also appearing: tape and vinyl technology created the potential for endless home-sequenced, technologically-mediated listening, while the recording industry, television, and the radio hit parade fostered the rise of repeatable musical commodities and ubiquitous sound environments. Reich has mentioned that he is particularly fond of records, having heard most of the music he loves first via the turntable.⁷ Minimalist music could be seen, therefore, to represent not the absence or negation of desire through mass repetition – as some theorists have postulated – but the formulation of new experiences of desire.

⁴ Fink, *Repeating Ourselves*, 10.

⁵ *Ibid.* [emphasis in original].

⁶ Earl Bodien, ‘The Films of Robert Nelson’, *The Film Quarterly*, Vol. 20/3 (Spring 1967), 51 [emphasis in original].

⁷ ‘Steve Reich, Michael Berkeley, and Gavin Bryars in Conversation’, British Library Sound Archive: ICA Talks (recorded 28 January 1986, London Institute of Contemporary Arts).

Teleology & Desire

Coherent and perceptible teleology – in the form of metaphoric linear energy and narrative thrust – has often been seen as an essential feature of Western high art music, particularly since the early nineteenth century.⁸ Organised around artificial desires created by the ‘universalised’ cadence, this feature was expounded in such ideas as Arthur Schopenhauer’s ‘tonal striving’ and Heinrich Schenker’s theory of background ‘Ursatz’ structure, based on what he saw as the innate properties of related notes in terms of their long-range voice leading. John Cage’s use of indeterminate compositional systems undermined this focus on subjectively-crafted teleology. Following this, a rigid musicological binary seemed to emerge in the literature that reified Cage, his experimental followers, and the minimalists as non-teleological and non-dialectical composers.⁹ In response, it is helpful to attempt a deconstruction of the essentialist binary ‘teleological / non-teleological’ – a move which (belatedly) mirrors the deconstruction of other essentialist binary oppositions, such as those between genders and sexualities, that have repeatedly come under scrutiny. Echoing the post-structuralist philosopher Judith Butler, Fink suggests a *performative* approach to teleology, arguing that this music can ‘maintain a distanced and perhaps even ironic stance toward “traditional” teleological dictates even as it plays with their undeniably pleasurable aspects’.¹⁰ Borrowing a term from genetic engineering, Fink proposes a theory of ‘recombinant teleology’, emphasising the radical transformation of something once thought immutable. I would like to argue that Reich’s modal phase-shifting music from 1967 embodies new constructions of musical desire in a manner which still signifies the tonally-functional cadence and aspects of linear drive, but in unconventional ways.

⁸ See: ‘Getting Down off the Beanstalk’ in Susan McClary’s, *Feminine Endings: Music, Gender, and Sexuality* (1991; Minneapolis: University of Minnesota Press, 2002). In it, McClary argues that the climax-focussed model functions to guarantee our identification with tonal music:

Its buildup hooks us, motivating us to invest personally in sequences of seemingly abstract musical events; and we are rewarded for having thus invested in its patterns of yearning when they reach cathartic fulfilment, which mysteriously becomes our own experience of libidinal gratification. [112/113]

⁹ See, for example: Wim Mertens, *American Minimal Music: La Monte Young, Terry Riley, Steve Reich, Philip Glass* (1980; London: Kahn & Averill, 2007) and Michael Nyman, *Experimental Music: Cage and Beyond* (1974; Cambridge: Cambridge University Press, 1999).

¹⁰ Fink, *Repeating Ourselves*, 43.

Having expanded the functional range of musical *telos*, it is possible to contrast ‘classical teleology’ – that of Beethoven and Brahms, for example – with the ‘recombinant teleologies’ of pulse-patterned repetitive music such as Reich’s. The difference might be construed in terms of time-scale. Classical teleology can be seen to reflect bodily perception of time and experiences of human scope; recombinant teleologies, on the other hand, ‘create musical universes in which tension and release are pursued on a scale that far outstrips the ability of the individual human subject to imagine a congruent bodily response’.¹¹ The scale of so-called minimalist pieces is often deliberately extended to a sublime excess (or reduced to the repetition of tiny individual building blocks) and pieces elongate (or reduce) conventional teleological schemes almost beyond recognition. Either that, or they slow down the rate of perceptual change so that time seems to stand still. Perceptual stamina is thus tested and critics such as Donal Henahan of the *New York Times* and Carman Moore of the *Village Voice* respond with claims of ‘expanding human capabilities’ and descriptions of the live performer as being ‘similar to a machine’.¹² These strange tension / release arcs begin to stretch our phenomenological horizon of awareness, and listening may concern fragmented climax episodes amidst periods of directionless ecstasy (or boredom), or even a disorientating over-saturation of climaxes. With recombinant teleologies, rather than *telos* determining a satisfying overall structure to the work (desire being constructed, prolonged, and fulfilled), an entirely new panoply of options is opened up. Tension and release arcs may organise only some of the musical space; incomplete cycles could be presented as part (or all) of a piece; fragments of cycles may appear as individual structural units; or repeated climaxes of equal weight could pervade the work at the expense of any one controlling event. Because of this, it is inappropriate to employ the same value framework designed to analyse traditional tonal music. Reich’s repetitive aesthetic resists traditional concepts of narrativity but still has the potential to present denatured forms of teleological drive and, therefore, novel and eccentric constructions of desire, which can be seen to reflect aspects of the artificial consumer desire created by mid-century television advertising.

¹¹ Fink, *Repeating Ourselves*, 44.

¹² Donal Henahan, ‘Who Dreams of Being a Beethoven?’, *New York Times* (29 June 1969), 17; Carman Moore, ‘Zukofsky’, *The Village Voice*, Vol. 14/29 (1 May 1969), 28.

Fink uses Jean Baudrillard's socio-economic theories to contrast the 'artisanal' state of Beethoven's music with Reich's rationalised and systematised 'industrial' processes (in a society whose desires are controlled by a media system).¹³ In this sense, Reich's compositional processes become analogous (in economic terms) to industrial, mass-produced versions of the smaller, traditionally-crafted techniques of earlier practice. These altered forms of musical teleology effectively mirror postmodern recombinations of desire in a wider cultural context. Working from the foundation of recent critical musicology – that insight into previous cultures can be induced from the inner workings of their music – Fink poses a rhetorical question:

If the great drama of the 1950s and 1960s was...a profound yet subtle shift in capitalism as subjective experience, specifically as the experience of consumer desire, then what better hermeneutic index of that shift than the desiring-production encoded by contemporaneous music?¹⁴

So, the argument goes, repetitive minimalist processes – combined with rearticulated constructions of traditional musical *telos* – produce a striking aesthetic simulacrum of advertising: the mass production of desire.

As well as reflecting aspects of industrial commodity production, Reich's distinctive phase-shifting music arose during a key historical transformation of the consumer society: the transfer of the repetitive structures of mass production from the material realm of the object into the realm of cultural discourse. That is, from industrial production to the production of artificial need in the population through advertising in order to sell specific goods. John Kenneth Galbraith theorised this economic development in his classic text *The Affluent Society* (1958). Galbraith's chapter entitled 'The Dependence Effect' is central to his argument. In it, he argues against the idea that production of goods is fed through latent desires in the population; rather, he proposes, increases in production – along with the persuasion of advertising – actually create the wants they claim to satisfy. Production, he suggests, 'only fills a void that it has itself created', whilst the urge to consume 'is fathered by the value system which emphasizes the ability of the society to produce'.¹⁵ Thus, consumption becomes a competitively signifying act within a system geared up to sell

¹³ Fink, *Repeating Ourselves*, 159.

¹⁴ *Ibid.*, 71.

¹⁵ John Kenneth Galbraith, *The Affluent Society* (1958; Middlesex: Penguin Books, 1974), 149 & 150.

whatever it fosters a demand for. Galbraith unmasks salesmanship and advertising as the main offenders in the scheme, their central function being ‘to create desires – to bring into being wants that previously did not exist’.¹⁶ Rather than relying on urgent or ‘authentic’ personal desires for commodities, corporations actively choose to create wants, in certain strata of the population, which are shaped by the discreet manipulations of persuasive advertising. In conclusion, he asserts, spontaneous consumer demand does not exist as previous thought: instead, the dependence effect means that it grows out of the process of production itself.

Rather than reflecting the style or content of such advertisements (as Pop art did in the visual sphere), Reich’s music can be seen to engage with the *structure* of mid-century American advertising. Looking at the phenomena of a campaign, Fink argues that incremental advertising ‘has always been understood as a gradual process requiring multiple iterations of the same stimulus to produce a rising curve of attention, interest, and desire’.¹⁷ The catalyst for this style of advertisement was the ‘creative revolution’ of the 1960s, as well as the growing impact of television and a change to ‘spot’ advertising. Thanks to this method, he argues, ‘post-1965 television is a vast, pervasive, endless experiment in repetitive process [which] has the regular pulse of minimalism in its very bones’.¹⁸ The key structural trope of both modern advertising practice and Reich’s music is, therefore, pulsed repetition. Fink coins the phrase ‘media sublime’ to evoke the consciousness of awe, wonder, and terror at this sheer volume of media content in Western capitalist society. Repetitive music, he argues, provides the listener with ‘a chance to experience, as an aesthetic effect, the entirety of the media flow, with its sublime excess of repetitive desiring-production’.¹⁹ Reich’s pulse-pattern music is, in this view, an aestheticised reflection of the excess of consumer goods on the open market and the processes which rationalise their consumption. Minimalism can thus be seen to carry a profound – if uncomfortable – cultural truth within its structure: it is the soundtrack to millions of burgers being sold.²⁰ In this reading, it is a truly vernacular, authentically American, inescapably mid-twentieth-century style with its socio-economic context woven into

¹⁶ Galbraith, *The Affluent Society*, 150.

¹⁷ Fink, *Repeating Ourselves*, 121.

¹⁸ *Ibid.*, 132.

¹⁹ *Ibid.*, 165.

²⁰ See Reich’s comments on post-war American consumer society in: Strickland *American Composers*, 46.

its fabric. But this need not necessarily represent capitulation to the System: in many ways the music embodies a complex and irresolvable relationship of conformity, indifference, and critique. It may have provided the listener with a therapeutic chance to confront surrounding culture in the secluded environment of the concert hall and art gallery or may even give a glimpse under the colourful surface of the cultural machinery producing ‘inauthentic’ desire for new consumer goods.

This particular interpretation, centred on late-capitalist market forces and their cultural realm of discourse, is appealing in many ways: it sets Reich in an appropriate socio-economic, historical, and geographic context; it helps to explain the vehemence with which some people have reacted toward the aesthetic; and it also goes a long way toward making the music actually signify something other than itself.²¹ Fink deliberately leaves room for what he calls ‘hermeneutic flexibility’ when it comes to the actual relationship between the music and individual desire for commodities: does it *feel* the same as consumer desire; do the processes of minimalist music *work like* those of advertising; or does minimalist repetition *correspond* to mass-media flow? These questions are left unanswered and, to some degree, cannot be settled with any certainty or universality as they are tied to subjective experience. A more concrete approach I would now like to take involves turning to Reich’s music in order to see what kind of ‘recombinant teleologies’ are manifest on closer inspection and how these might demonstrate aspects of the above theory. This will involve confronting the problem of analysing a music which deliberately throws a number of spanners in the workings of conventional Western music theory.

Analytical Concerns

Approaching minimalist music has always presented analysts with a problem: what can be meaningfully said about a style where compositional methodology is so prominently displayed, insistent repetition seems to undermine tonal narrative, and basic materials are so simple as to be almost ‘undifferentiated’ Gestalts? Analyst Richard Cohn notes that this problem is further exacerbated by ‘the perception that,

²¹ See, for example, Elliot Carter’s derisive comments on minimalism in relation to advertising in a March 2000 interview with Frank J. Oteri for the American online magazine *New Music Box*, <<http://www.newmusicbox.org/first-person/mar00/6.html>> [accessed 28.07.10].

during his phase-shifting period, Reich was uninfluenced by the musical tradition for which standard analytic methods were developed'.²² Whether this was the case or not is open to question, but Reich likes to perpetuate the idea that he had 'no real interest in music from Haydn to Wagner'.²³ Instead, he often mentions the contrapuntal music of J. S. Bach, American jazz of the 1950s, West-African and Balinese music, Stravinsky, Bartók, Debussy, and the organa of Pérotin and Léonin as aesthetic connections. In an interview with Edward Strickland, Reich posits that 'a lot of what I do resembles stretto, and you're often squarely back dealing with the kinds of techniques that resemble isorhythmic motets of anywhere from the thirteenth to the fifteenth centuries'.²⁴ The key word here is 'resemble' – what we are dealing with is not direct influence, but retrospective similarity, as Reich himself acknowledges: 'most of these connections occurred to me after I did what I did in a very intuitive, nonintellectualized way'.²⁵ It is thus difficult to know what to make of the impressive genealogy Reich constructs for his music: one could argue that he is simply trying to legitimize his compositional practice by association.

Reich was also keen to demonstrate his difference from the Western tradition via Other sources of influence: 'one can create a music...that is constructed in the light of one's knowledge of non-Western *structures*'.²⁶ However, while he demonstrated a pervasive interest in the musical traditions of Africa and Bali, he maintained that tonality was still fundamental to his music:

To me, our piano scale is something one picks up from the cradle. It's imbedded on an unconscious level, and I don't want to mess with it! I find alien instruments, timbres, tuning, scales, modes, fascinating – but they're precisely the elements I don't want to touch with a ten-foot pole!²⁷

It is with this aspect of Reich's compositional practice in mind that Gregory Sandow wrote the following in the *Village Voice* in 1980:

I can't agree with most of the critical remarks about [Reich]...he is a *Western* composer, working squarely within the tradition of Western classical music. After

²² Richard Cohn, 'Transpositional Combination of Beat-Class Sets in Steve Reich's Phase-Shifting Music', *Perspectives of New Music*, Vol. 30/2 (Summer 1992), 147.

²³ Strickland, *American Composers*, 47.

²⁴ *Ibid.*, 36.

²⁵ *Ibid.*, 37.

²⁶ Reich, *Writings on Music*, 71 [emphasis in original].

²⁷ Strickland, *American Composers*, 42–3.

the repetition, the polyrhythms, and the slowly changing, percussive texture becomes familiar, it's possible to hear that Reich's harmony, instrumentation, meter, and structural precision are entirely Western. He develops motifs, plans patterns of tension and release, and builds momentum toward small climaxes within each piece.²⁸

Taking this statement seriously and removing Reich from the pantheon of composers concerned with imitating the sounds or forms of certain non-Western musical practices creates the potential to retrieve his music for 'conventional' analysis.

What has been hidden by a non-teleological view of Reich's phase-shifting music is the way in which his repetitive processes perpetually modify and realign their basic units, thereby creating the potential for dynamism. In this sense, depictions of Reich as a composer of music which exists 'outside of time' falls into a paradox, since the idea of a process without motion through time, flux, or perceptual change is fallacious. What is also concealed by such a view is the presence of various 'secrets of structure' which might provoke analytical questions. Taking his cue from 'Music as a Gradual Process', Richard Cohn notes that there is a subtle distinction made in Reich's essay between 'materials' and 'process', leaving room for an element of the overall composition which distinguishes the process from the work itself. He argues that the concept of material running through a process 'implies a third component to the ontology – materials, process, and "running through", an act requiring an agent' who can be none other than the composer himself.²⁹ Reich's works are thus not one-dimensional, 'objective' entities, but are necessarily reliant on an author-figure to set them in motion, terminate them, and control their progress over time; by questioning the highly ideological idea that there is nothing to analyse in his music, we may begin to uncover 'Reich the composer' lurking behind the process.

The mathematical focus on rhythm and 'attack point density' proposed by Cohn – via a modified version of set-theoretical analysis, a scheme usually reserved for dodecaphonic music – represents only one aspect of Reich's practice. In her PhD dissertation 'Tonality and the Music of Steve Reich', Linda Garton takes a different approach.³⁰ She critiques the notion that tonality somehow 'broke down' with the

²⁸ Quoted in: Cohn, 'Transpositional Combination', 147–8 [emphasis in original].

²⁹ *Ibid.*, 148.

³⁰ Linda Garton, 'Tonality and the Music of Steve Reich' (Ph.D. diss., Northwestern University, 2004).

Second Viennese School: in reality, tonality never faded from cultural attention and was perhaps *the* fundamental aspect of musical experience in the twentieth century, especially given the ubiquity of popular music, Broadway musicals, and commercial orchestral programming. In this sense, Reich shares in both a cultivated reaction against atonality as well as a vernacular indifference to the modernist avant garde. The concept of tonality itself needs to be brought into question: it is, in part, a matter of individual subjectivity – dependent upon the expectation, perception, and inference of actual listeners – as well as being conditioned by such factors as the metric placement of pitches. Garton argues that ‘tonality is the ability of listeners or analysts to center on a pitch class as a point of stability in a musical work’, whilst noting that ‘a work may have more than one pitch center, and more than one tonality, either chronologically within a work or simultaneously’.³¹ Thus, the reified concept of ‘tonality’ can be deconstructed and expanded to include the multifaceted, flexible, and ambiguous approaches found in Reich’s music of this period.

Fink argues that Reich’s approach to tonality is tied to an idiosyncratic approach to musical ‘desire creation’, acting as a mirror on broader economic models of advertising. According to this theory, Reich channels musical energy through two devices not usually associated with minimal music: ‘a bass line that outlines semifunctional root progressions over large expanses of musical time; and a series of coherent, carefully controlled linear progressions in the soprano register’.³² Despite being part of an analysis of *Music for 18 Musicians* (1976), aspects of this practice are clearly inherent in Reich’s earlier pieces. In his review of Fink’s book, Benjamin Skipp protests that this analytical approach is ‘indistinguishable from procedures utilised by previous analysts to explain examples from the Western classical tradition’, and that the concept of desire creation is ‘no more than the prolongation of a perfect cadence’.³³ Might this argument, therefore, be just another way of trying to muscle the minimalists into the Western tonal canon by redefining the terms for inclusion? In a chapter from *Rethinking Music* (2001) entitled ‘Going Flat: Post-Hierarchical Music Theory and the Musical Surface’, Fink provides an interesting riposte. In it, he argues that ‘for reasons both technical and political, it may be time to

³¹ Garton, ‘Tonality and the Music of Steve Reich’, 19.

³² Fink, *Repeating Ourselves*, 50.

³³ Benjamin Skipp, ‘Review [untitled]’, *Music & Letters* Vol. 89/1 (February 2008), 109–12.

retire the surface-depth metaphor – indispensable as it has been – as we attempt to understand the way music is composed and received now'.³⁴ The various cadences that Fink analyses in Reich's music may appear Schenkerian, but they are, in fact, radically different: rather than being concerned with hierarchy, depth and organicism, they constitute the mercurial surface of the music itself. Rather than structural abstractions, they are presentations of how the music functions right in front of us.

This 'superficial' approach concerns realigning musical analysis with a newly diverse and varied cultural politics, thereby bringing previously problematic repertoires into view. It is a revisionist project that is critical of how Schenkerian and set-theoretic analyses claim to define value in music by recourse to deep, generative structural levels, concealing organic unity no matter what the listener's experience of the surface may be. Bearing in mind the way minimalist music tends to flout its surface, Fink argues, 'one might begin to question whether hierarchy is the best index of value'.³⁵ The theoretical underpinning for his approach comes via Frederic Jameson and Jean Baudrillard. Jameson's arguments from *Postmodernism; or, the Cultural Logic of Late Capitalism* concern the idea that surface is of crucial importance in our epoch: he argues that perhaps the supreme feature of all the postmodernisms is 'the emergence of a new kind of flatness or depthlessness, a new kind of superficiality in the most literal sense'.³⁶ Paraphrasing Baudrillard, Fink also argues that 'all that is left in the postmodern era is the *simulacrum*, the image that represents only itself, the surface that floats free of any reality "underneath"'.³⁷ For music analysis, this means that rather than successive layers of increasingly reductive voice-leading, connections can be made via the perceptual tendency to link up significant moments of musical experience, often in energetic linear ascents rather than in structural descents. Traditional analytical discourse, in contrast, seems to point toward a fear of the surface – the idea that surface automatically or necessarily presupposes a lack (its depth). The danger existed that this could essentialise the notion that in works of art, depth is directly correlated to value. By separating the value discourse from the surface / depth debate, it is possible to view the surface itself

³⁴ Robert Fink, 'Going Flat: Post-Hierarchical Music Theory and the Musical Surface', in: Nicholas Cook & Mark Everist (eds.), *Rethinking Music* (Oxford: Oxford University Press, 2001), 102.

³⁵ *Ibid.*, 103.

³⁶ Frederic Jameson, *Postmodernism; or, the Cultural Logic of Late Capitalism* (London: Verso, 1993), 9.

³⁷ Fink, 'Going Flat', 121 [emphasis in original].

without presupposing a lesser degree of aesthetic interaction. A further reason to dispense with the depth concept is that it has often led to ‘formalist’ treatments of works, justifying their autonomy and therefore their place in the canon by reducing their workings to a generative, internal system understandable on its own (relatively) abstract terms. Rather than treating the generative depth metaphor as a universal indicator of musical worth, it is more helpful to locate it as a historically-contingent concept, particular to a defensive reinforcement of the bourgeois ego.³⁸

There are, however, certain problems with Fink’s approach. The principal flaw in his methodology is that he fails to differentiate properly between voice-leading analysis and full-blown Schenkerian theory. To use voice-leading analysis as an analytical framework necessarily presupposes, to some degree, distinct levels within the surface itself – i.e. between notes which ‘function’ and those which are passing or dissonant. This is not to say that these ‘non-functional’ notes are perceptually unimportant, but that a certain level of hierarchy is inescapable when approaching pieces that embrace the tonal idiom, even if it is through a reconfigured modality. Fink argues that the ‘collapsing of voice-leading and functional hierarchies is one of the most characteristic features of minimalist tonality’.³⁹ But what is tonality if not a functional system? If Reich deliberately uses aspects of tonality – even as simulacra of traditional Western practice – voice-leading analysis of his music can form part of an appropriate analytical response, albeit combined with the knowledge that certain tools need to be reformed and critiqued in order to meet the music on its own terms. The difference might be to do with degree: lack of ‘depth’ and the presence of recombinant teleology often functions to undermine deep or generative voice-leading, but not the musical surface as related to tensions between individual notes.

Piano Phase

A fascinating window onto the way the phase-shifting technique was developed is opened up by *Piano Phase*. It is used by Reich, in discourse, as the metaphorical fulcrum between his earlier tape compositions and the transferral of that technique to

³⁸ See: Fink, ‘Going Flat’, 132–7.

³⁹ *Ibid.*, 127.

live performance. The following, from his *Writings on Music*, is a typical instance of the story:

Late in 1966, I recorded a short repeating melodic pattern played on the piano, made a loop of that pattern, and then tried to play against the loop myself, exactly as if I were a second tape recorder. I found, to my surprise, that while I lacked the perfection of the machine, I could give a fair approximation of it while enjoying a new and extremely satisfying way of playing.⁴⁰

Jon Gibson is thereby written out of the history of applying tape phasing to live performance – something which represented, as Keith Potter notes, one of ‘the major influences which electronic music has had on the development of music for players of conventional Western instruments’.⁴¹ In interviews, this little story usually comes after Reich’s description of what he thought was the impossibility of human beings performing the gradual process ‘since [it] was discovered with, and was indigenous to, machines’.⁴² But what is most interesting, especially given Reich’s later frustration with his complex ‘Phase-Shifting Pulse Gate’, is that when the process is left to musicians to perform, a new and fruitful realm of possibility is opened up. In so doing, mechanicity is deliberately abandoned in favour of the idiosyncratic nature of individual human aptitude. This aspect was picked up on by *Village Voice* critic Carman Moore, who – when reviewing the Park Place Gallery concerts of March 1967 – argued that ‘when tape is put aside and emulated by humans with human limitations...an element of real excitement occurs’.⁴³

Piano Phase seems to have undergone several revisions, or at least existed in a number of different states before it crystallised into the version in general circulation today.⁴⁴ Reich mentions that the pattern he looped and played along to on his tape recorder later became one of the basic units.⁴⁵ He describes the collaborative development of the piece as follows:

⁴⁰ Steve Reich, *Writings on Music, 1965–2000* (Oxford: Oxford University Press, 2002), 22–4.

⁴¹ Keith Potter, *Four Musical Minimalists: La Monte Young, Terry Riley, Steve Reich, Philip Glass* (Cambridge: Cambridge University Press, 2004), 247.

⁴² Reich, *Writings*, 22.

⁴³ Carman Moore, ‘Park Place Pianos’, *The Village Voice*, Vol. 12/23 (23 March 1967), 15.

⁴⁴ Steve Reich, *Piano Phase* (1967): Universal Edition (16156).

⁴⁵ William Duckworth, *Talking Music: Conversations with John Cage, Philip Glass, Laurie Anderson, and Five Generations of American Experimental Composers* (New York: Da Capo Press, 1999), 298.

Arthur Murphy and I, both working in our homes, experimented with the performance of this phase shifting process using piano and tape loops. The next step, which happened in late '66 or early '67, was that Arthur (who was the first member of my ensemble and a friend from Julliard) and I went out to Fairleigh Dickinson College to do a concert. The night before we went over and did it live, and it was 'look, Ma, no *tape!*'⁴⁶

This first performance of the two-piano version was at Fairleigh Dickinson, New Jersey, in January 1967 with Reich and Murphy on pianos.⁴⁷ The piece, however, was programmed as *Four Pianos* in its appearance at the Park Place Gallery two months later and involved four performers on electronic keyboards: Reich, Murphy, Phillip Corner, and James Tenney. The title of Moore's favourable review, 'Park Place Pianos', hints at the spectacle that Reich obviously intended for this performance – something perhaps closer to the aesthetic of his later *Six Pianos* (1973). Moore describes how Reich's phasing process of manipulating musical material against itself creates 'an entire field of fresh sound and rhythm', where 'myriad new phrases are possible and in such a way as to fascinate at least this listener'.⁴⁸ Interestingly, in the exhibition catalogue to the 1969 Whitney Museum show 'Anti-Illusion: Procedures / Materials', Reich was still describing the piece as 'a work in progress'.⁴⁹ Its final state seems to have been assumed by 1980 (the copyright date of the UE score), but the piece was not available as a commercial recording until 1987 – on the CD album *Steve Reich: Early Works* (Elektra Nonesuch 9 79169-2), in a twenty-minute version by piano-duo Double Edge recorded the previous year.

One of the reasons why the score was not completed until after the initial performances was that for Reich and his ensemble the new method of performing by repeating melodic units in different phased relationships meant that it was not necessary to read any notation while they played. In order to perform the piece, Reich suggests, 'one learns the musical material and puts the score aside'; once the melodic fragments and the basic structure is learnt, the only things contingent upon performance are the total number of repetitions and the speed of the individual

⁴⁶ Reich, *Writings*, 24; Duckworth, *Talking Music*, 298; Strickland, *American Composers*, 40 [emphasis in original].

⁴⁷ See: David J. Hoek, *Steve Reich: a Bio-bibliography* (Westport: Greenwood Press, 2002), 29.

⁴⁸ Moore, 'Park Place Pianos'.

⁴⁹ See: Cornelia H. Butler, *Afterimage: Drawing Through Process* (Cambridge, Massachusetts: MIT Press, 1999), 81.

transitions.⁵⁰ In this sense, Reich advocated an anti-expressive approach to performance and submission to the process as an almost religious act of self-discipline: ‘the pleasure I get from playing is not the pleasure of expressing myself, but of subjugating myself to the music’.⁵¹ Although reminiscent of the ‘machine aesthetic’, Reich saw this as ‘simply controlling your mind and body very carefully as in yoga breathing exercises’ which serve to ‘focus the mind to a fine point’.⁵² In a 1970 interview with Michael Nyman, Reich argued that this kind of performance ‘is something we could do with more of, and the “human expressive activity” which is assumed to be innately human is what we could do with less of right now’.⁵³ Music critic Donal Henahan saw this as a zeitgeist trend amongst youth culture of the 1960s, arguing, in an article entitled ‘Who Dreams of Being a Beethoven?’, that ‘after too many man-made disasters and wars in this century, the young have had enough of chest-thumping, and their musicians are reflecting that dissatisfaction’.⁵⁴ Such an attitude can be found in both Reich’s idea that participating in strict musical processes enacts a liberating shift of attention outwards toward ‘it’, as well as his interest in non-Western musical traditions (such as those of Africa and Bali) which, he argues, also ‘have an [aspect of] impersonality to them’.⁵⁵ Reich’s position can also be read as an ostensible critique of the essentialised ego-centricism of modern Western concert phenomenology: the conductor, the virtuoso soloist, showmanship, and individual compositional ‘genius’. Aspects such as the anti-expressive action toward the creation of a kind of collective rite found in Reich’s ensemble break away from standard Western performance etiquette. It is interesting to note that when Theodore Adorno identified these concepts in Stravinsky’s music, his conclusion was that they represented atavistic brutality and fascist ideology; for Reich, this move toward ‘objectivity’ had a positive aspect to be actively embraced – the escape from traditional and perhaps overbearing constructions of the Western Self.⁵⁶

⁵⁰ Reich, *Writings*, 24.

⁵¹ ‘Music and Performance’ (1969–1974), in: *Ibid.*, 82.

⁵² *Ibid.*, 24.

⁵³ Michael Nyman, ‘Steve Reich: An Interview with Michael Nyman’, *The Musical Times*, Vol. 112/1537 (March 1971), 230.

⁵⁴ Henahan, ‘Who Dreams of Being a Beethoven?’.

⁵⁵ Nyman, ‘Steve Reich: An Interview’, 230.

⁵⁶ See: Theodor W. Adorno, *Philosophy of Modern Music* (1949; London: Continuum, 2007), 100–57, and ‘Stravinsky: A Dialectical Portrait’ (1962), in: Adorno, *Quasi Una Fantasia: Essays on Modern Music* (1963; London: Verso, 1992).

In order to test for the presence of recombinant teleology and deliberately-crafted rhythmic ambiguity (to allow room for perceptual flexibility), the following is an analysis of *Piano Phase*.⁵⁷ Rather than being a singular process which progresses and concludes ‘on its own terms’, the piece consists of three distinct and clearly ‘composed’ sections. Figure 4.1 shows the four basic melodic units which comprise the piece. The two-voice notation in the upper line is based on Reich’s own, designed to represent right-hand and left-hand separation on the keyboard. The initial process consists of a complete phasing cycle of unit 1(a), against itself; a new unit derived from this, 1(b), is then introduced by the first player, whilst the second player introduces another new unit, 2(a), under it. The second player phases this unit against the repeating 1(b) of player one for a full cycle. Finally, player two introduces a unit, 2(b), derived from their previous one, which is doubled by player one; player two then phases this unit against itself for another full cycle.

Figure 4.1 also presents a graphic analysis of the surface evolution of the units themselves, as well as the concealed polyphony of their miniature processes and the potential multiplicity of metric groupings. These ambiguities of accent become much more complex when patterns are subject to the overlapping phase-shift procedure – this analysis shows their initial ‘composed’ stages. It is possible to perceive multiple downbeats in the 12/16 construction of unit 1(a): it can be heard simultaneously as

Figure 4.1: analysis of *Piano Phase*'s four basic units

⁵⁷ Reich states that ‘if I compose music that is to use repeating patterns and is also to remain interesting I must build in rhythmic ambiguity’. This was a lesson he had learnt from *Melodica* and *Reed Phase* – less successful works which didn’t fully exploit the potential rhythmic interest created by multiple and conflicting downbeats in a basic pattern. [Reich, *Writings*, 150].

having divisions of six, four, three, or two. The repeated low Es encourage division into two groups of six, while the optional division into three groups of four notes creates a kind of polyrhythm. The situation is made more complex by the fact that the initial linear ascent (marked by unfilled diamond noteheads) followed by a downward leap encourages the listener to group this five-note figure, perhaps leading to a division of five + five + two. There is also clear two-voice polyphony within the unit: a kind of hemiola relationship exists between the alternating F_{\sharp} / C_{\sharp} dyad (marked by diamond noteheads) and the repeating triad $E / B / D$. Looking at the way that each note of the triad appears in between the dyad at some point in the unit, it is possible to argue that the dyad is actually phasing across the ostinato triad figuration. The feeling and visual phenomenology of playing this unit on a piano with the hand separation Reich suggests substantiates this interpretation.

Unit 1(b) is effectively a systematic distillation of 1(a): the linear ascent is kept, followed by F_{\sharp} , B, and C_{\sharp} (indicated by small arrows) which demonstrate a link back to the second half of the previous unit. These three notes are equidistant within the seven-note grouping following the ascent and thereby act to present a curtailed, seemingly sped up version of the initial melodic idea. This new eight-note unit can also be seen to be metrically ambiguous, dividing as it does into four + four as well as five + three, and even six + two. It is possible to see a two-voice internal polyphony, except that this time B always falls in between the F_{\sharp} / C_{\sharp} dyad and the triad becomes a broken-chord figuration rather than an ascending arpeggio – two manifest links to its complimentary unit. 2(a) also has an 8/16 construction, but differs from 1(b) in certain ways. Firstly, the mode has changed, although it still retains a conspicuous linear ascent within its structure (marked by unfilled diamond noteheads). The first two notes of this ascent are repeated, lending it the quality of a distinct motif and making its repetitions more insistent. Secondly, there is less rhythmic ambiguity than before, but the unit, when repeated, does suggest a simultaneous division into interlocking groups of four. Its inner contrapuntal shape reveals a striking similarity to 1(b) which is not immediately apparent: a similar broken-chord figuration ($E / A / D$) is found under a repeating (now inverted) dyad E / B . Unit 2(b) is essentially an isolation of the linear ascent from 2(a) and retains its two-voice polyphony. It is

possible, therefore, to see the intended similarities between the construction of the two unit pairs in the way that they distil and emphasise their respective linear ascents.

This analysis reveals the carefully-constructed and evidently intentional connections between the different phasing units. It demonstrates why the piece perhaps feels like one long, singular process – an effect achieved by the similarities in the hidden polyphony and the way the units flow logically from one section to another. Furthermore, this analysis picks out two key features we might diagnose as a form of recombinant teleology. Firstly, a key structural feature of the piece appears to be the linear ascent – of five notes in units 1(a) and (b), and of four notes in units 2(a) and (b). Rather than a Schenkerian background descent, we might suggest that this is a *structural surface ascent*, creating energy and tension as it repeats more frequently and in different contexts. Secondly, the units become progressively shorter and the linear ascent becomes more and more prominent until it is the only thing left. This happens because the notes around the ascent – often motivic echoes of the ascent itself – gradually disappear, leaving what feels like an *acceleration*, a feeling reinforced by the individual phasing transitions which act as miniature accelerandos. Moreover, the ascent itself changes mode, shifts higher, loses a note, and therefore repeats ever more insistently. When we reach the end of the piece, it is not clear if the energy from this calculated process is ever released, except for the relief found in its cessation: we are presented with a striking linear energy mechanism seemingly leading nowhere. This, of course, represents a key feature of Reich’s variant approach to teleology – here it is all increasing desire with no obvious climax.

Piano Phase also has the potential to be analysed harmonically, especially as Reich is quite clear that it has an intentional harmonic structure: ‘the piece is divided into three sections...the first is twelve beats in B minor, the second eight beats forming an apparent E dominant chord, and the last is four beats in A (probably major but lacking a stated third degree)’.⁵⁸ However, as Keith Potter argues, harmonic motion is suggested rather than actually achieved and ‘any aural interpretation of [the] neat progression of perfect fourths in terms of ii – V – I in A is heavily qualified by

⁵⁸ Reich, *Writings*, 24.

modal ambiguity'.⁵⁹ Garton also argues that as the phasing process takes its course, perceptions of tonality become increasingly fuzzy 'as different pitches and metric structures emerge and are emphasized by the resulting patterns of the overlapping melodic figures'.⁶⁰ Nevertheless, I would argue that it is possible to feel a latent tonal momentum in the piece, underscored by the semi-functional quality of the modality employed. For Fink, *Piano Phase* 'is nothing but surface' and therefore must be tackled on its own terms – through acknowledgement of its slow-motion foreground progression.⁶¹ His reading suggests that in terms of long-range voice-leading structure, the piece contains a simple linear movement from the note D to the note E. The mass repetition of units 1(a) and (b), with their rising emphasis on the note D, effectively 'creates a cumulatively irresistible desire for the next scale step', E, which is delivered by unit 2(a) and prolonged by 2(b).⁶²

Figure 4.2: voice-leading analysis of *Piano Phase*'s basic units

Analysing the 'surface' voice-leading of the four basic units in their relative positions, it is possible to see a latent (if muddled) tonal motion. Figure 4.2 represents a possible foreground voice-leading graph of the piece. It shows that in unit 1(a), although accented by perceptual downbeats, the low E could function as a lower neighbour-note to F \sharp , whilst the C \sharp s become either passing notes between B and D or

⁵⁹ Potter, *Four Musical Minimalists*, 187.

⁶⁰ Garton, 'Tonality', 52.

⁶¹ Fink, 'Going Flat', 127.

⁶² Robert Fink, "'Arrows of Desire": Long-Range Linear Structure and the Transformation of Musical Energy' (Ph.D. diss., University of California at Berkeley, 1994), 166.

their neighbour notes. The unit can thereby be seen to outline a quite clear B minor tonality, in second inversion, with a perceptual emphasis on the note D thanks to the emphatic linear ascent and its registral position. The voice-leading of unit 1(b) is fundamentally the same as that of 1(a), although truncated slightly. It could be seen to perceptually donate its final C \sharp to unit 2(b), providing the missing third scale degree. Unit 2(a) has a skeletal E (major) tonality and a new ascent now emphasising the note E as an extension of the previous scalic pattern (B / C \sharp / D). A simultaneous polyphonic voice also suggests the prominence of the note B, now transformed from first to fifth scale degree. By reinterpreting the voice-leading of unit 2(a)'s ascent in 2(b), it can be seen to outline an A (major) tonality. Thus, unit 2(a) effectively becomes the dominant to 2(b)'s tonic. However, this neat interpretation is sullied by the simultaneity of units 1(b) and 2(a) and by the metric adjustments which are brought about as a result of the phase-shifting procedure. It even brings into question whether it is possible to talk about a clear 'desired' progression from the note D to the note E, as they are found together in the middle section, blurring a coherent sense of which has perceptual priority. What is clear from the graph, however, is that an unusual form of teleology is most definitely present within the piece's construction: the gradual distillation of an energetic linear ascent.

By far the most comprehensive analytical account of *Piano Phase*'s long first cycle can be found in Paul Epstein's 1986 article for the *Musical Quarterly*. In it, he provides a neat description of Reich's phasing process during this section: 'we have in effect a series of canons, at distances of from 0 to 11 sixteenth notes, alternating with transitions in which the two voices are out of phase with each other' – something Potter refers to as 'fuzzy transitions' – where (in the middle) a doubling of tempo is perceived.⁶³ Epstein notes that as a natural outcome of the phasing process 'the second half of the cycle is a retrograde of the first, with the relationship between the two players reversed'.⁶⁴ This quirky palindromic effect, not always apparent to the casual listener, was also identified in 1974 by Brian Dennis. He noticed, however, that it is not a true palindrome as in retrograde 'the first beat (apparent or not) of each

⁶³ Paul Epstein, 'Pattern Structure and Process in Steve Reich's *Piano Phase*', *The Musical Quarterly*, Vol. 72/4 (1986), 495.

⁶⁴ *Ibid.*

phrase is displaced', meaning that 'one may sense a new downbeat in the second appearance of a figure'.⁶⁵ Epstein presents a table of these different 'locked' phasing relationships, showing the various dyads formed by the integration of the two piano parts. The interesting conclusion reached is that 'the even-numbered (homogenous) phases are almost entirely consonant' whilst 'the odd-numbered (heterogenous) phases are significantly more dissonant'.⁶⁶ Thus, the first section of the piece has a kind of arch or mirror structure with the central pivot consisting only of F \sharp / C \sharp dyads interspersed with unison Bs and Ds. Another emergent result of the phasing process is that the locked relationship immediately preceding (and immediately following) this consists of pairs of repeated dyads, producing a kind of shimmering effect clearly audible in performance. The process also throws up three equally-spaced relationships which consist of a repeated 6-beat subunit rather than a full 12-beat pattern.

As Epstein only provides an analytic transcription of *Piano Phase's* first section, I would like to extend a similar treatment to the rest of the piece. The cycle of the first section, like that of the third, consists of the same basic unit phased against itself, resulting in a palindromic effect and the alternation of consonant and dissonant dyads. The second section, however, complicates this neat picture, as it involves two different units (in different modes) phased against each other – something unique in Reich's work up to this point. A transcription of this section will help undermine any simplistic harmonic interpretation of the piece. Figure 4.3 shows this section, with unfilled diamond note heads representing unit 2(a) as it moves across the static repetitions of 1(b). In this way, the section represents a long transition passage in which the two units are woven together before being untangled to reveal a move from a B minor tonality to that of A. Instead of containing a mirror structure, this section has a binary construction: four patterns emerge that are repeated in modified versions, ending with an iteration of the first pattern. At the mid-point of the phasing cycle, pattern A(ii) halves the perceptual length of the bar as it contains a repeated four-semiquaver sub-pattern – the only time this happens in the section. The relationship between the pairs of patterns is demonstrated graphically by Figure 4.3: in the modified version, dyads equidistant in the bar are switched, leaving the patterns

⁶⁵ Brian Dennis, 'Repetitive and Systemic Music', *The Musical Times*, Vol. 115/1582 (December 1974), 1037.

⁶⁶ Epstein, 'Pattern Structure', 496.

virtually intact, but disrupting their original order. This happens systematically: in B(ii) it is the 4th and 8th semiquavers; in C(ii) it is the 3rd and 7th; and in D(ii) it is the 2nd and 6th. A complex and covert process such as this will be very difficult to hear in the piece and, I would argue, represents a hidden ‘secret of structure’. There is noticeable variety of consonance and dissonance: both patterns A and B – although not B(ii) – contain consecutive dyads of seconds (major seconds in A and a minor followed by a major second in B), emphasised in A(ii) when all dyads are either a major second or a minor seventh, while patterns C and D contain consecutive thirds. Pattern C is particularly striking in this manner as it consists of only thirds, fourths, and fifths. Although not as elegant in terms of structure as the first section, this middle section does contain enough contrast and ambiguity to allow for perceptual flexibility. A voice-leading interpretation based on the idea of a rising linear ascent could be sustained via this reading, especially with regard to the pivotal pattern A(ii) and the presence of two Es in the top register during all aggregates. Figure 4.4 shows the phasing process in the third section; its palindromic structure is clear, as is the contrast between the rising patterns and the more static perfect-fourth dyads at the mid point, where the perceptual length of the unit is halved.

The figure displays a musical score for the middle section of 'Piano Phase', spanning measures 17 to 25. The score is organized into three systems, each starting with a double bar line. The first system (measures 17-19) features 'pattern A' (measures 17-18) and 'pattern B' (measure 18), followed by 'pattern C' (measures 19-20). The second system (measures 20-22) shows 'pattern D' (measures 20-21), 'A (ii)' (measure 21), and 'B (ii)' (measures 22-23). The third system (measures 23-25) includes 'C (ii)' (measures 23-24), 'D (ii)' (measures 24-25), and 'A' (measures 25-26). Brackets and arrows are used to group notes and indicate relationships between patterns. A vertical dashed line is placed between measures 21 and 22, marking the midpoint of the section.

Figure 4.3: analysis of *Piano Phase*, middle section



Figure 4.4: analysis of *Piano Phase*, final section

The remarkable effects produced by the simple phasing process give *Piano Phase* its momentum, diversity, and character. Epstein argues that ‘the listener is presented with a rich array of possibilities out of which he/she may construct an experience of the piece’.⁶⁷ We might therefore argue that this represents a confluence of the ‘impersonal’ (the seeming autonomy of the process) and the ‘personal’ (perceptual discovery). The listener is given freedom, within the apparently restrictive musical structure, to cultivate his or her own perceptual response to, and even path through, the sound world. This, surely, is the strongest riposte to an Adornian reading of Reich’s repetition. Rather than being an ‘objective’ entity forcing our attention and (political) submission to the collective, the original pattern effectively becomes submerged in its own reflections, allowing individuals to reconstruct it as they wish. Instead of being relentless and unchanging, the phase-shifting process actually serves to produce continual variations of the repeated melodic fragment in an essentially non-developmental way. Furthermore, there is even the possibility of overcoming the rigorous nature of the process through repetitive listening: by adopting different strategies as a listener, ranging in levels of engagement, it is possible to gradually seek more interesting or remote possibilities within the unfolding of the music.

Violin Phase

In October 1967 Reich completed *Violin Phase*, a piece which he suggests ‘was basically an expansion and refinement of *Piano Phase*’ in two ways.⁶⁸ Firstly, rather than two voices, there were now four (although *Piano Phase* also had four at one stage in its evolution, and *Reed Phase* had three). Secondly, it was in this piece that the possibility of creating new melodies out of the total phasing aggregate produced by the interlocking voices was explored. Reich asserted that these various emergent

⁶⁷ Epstein, ‘Pattern Structure’, 497.

⁶⁸ Reich, *Writings*, 26.

patterns ‘can be understood as psychoacoustic by-products of the repetition and phase-shifting’ and, in *Violin Phase*, are ‘pointed out’ by the live violin doubling certain notes within the aggregate.⁶⁹ There is some controversy surrounding the early performances of the piece: D. J. Hoek, for example, has the premiere down as April 1969 at the New School, New York.⁷⁰ Carman Moore, however, has evidence to suggest otherwise: whilst reviewing this performance in the *Village Voice*, he wrote that ‘Reich’s *Violin Phase* was not new to me. I heard it some time ago at the School of Visual Arts, but liked it much better this time under Zukofsky’s reading’.⁷¹ Potter provides corroboration of Moore’s position: he states that the artist Robert Rauschenberg was ‘responsible for mounting a series of performances at New York’s School of Visual Arts late in 1967, which included the premiere of *Violin Phase* (a year before Paul Zukofsky’s performance)’.⁷² This was the November 1967 concert at which *My Name Is: Ensemble Portrait* was also premiered.⁷³ Zukofsky was the first to record *Violin Phase*, his version being released on the 1968 Columbia Masterworks LP, *Steve Reich: Live / Electronic Music* (MS 7265), as the A-side to *It’s Gonna Rain*. Zukofsky’s recorded version lasts just over twenty-three minutes, whereas the version he played at the New School in 1969 lasted ‘a full half hour’, according to Donal Henahan.⁷⁴ In a 1980 interview on Berkeley’s KPFA-FM, Reich states a clear preference for shorter versions of the piece, describing how Zukofsky actually changed his stated tempo ($\downarrow = c.144$) in order to demonstrate the phasing transitions more clearly.⁷⁵ During the interview, Reich plays two different versions of the piece, including one by the violinist Shem Guibbory, released on LP by ECM Records in 1980 (1-1168), which he endorses as being at a more suitable tempo.

Some members of the audience at a Berkeley performance in 1970 – with Zukofsky as the multi-tracked soloist for a half-hour performance – reacted badly to

⁶⁹ Reich, *Writings*, 26.

⁷⁰ Hoek, *Steve Reich*, 29.

⁷¹ Moore, ‘Zukofsky’.

⁷² Potter, *Four Musical Minimalists*, 171.

⁷³ *My Name Is: Ensemble Portrait* (1967) was effectively a performative demonstration of the phasing technique – a display of Reich’s method of composition shown in real time utilising vocal material recorded from the audience as they entered the auditorium and then looped. It has never been published and exists as a conceptual score only; see Reich, *Writings*, 29–30.

⁷⁴ Donal Henahan, ‘Repetition, Electronically Aided, Dominates Music of Steve Reich’, *New York Times* (28 May 1969), 37.

⁷⁵ *Ode to Gravity: Charles Amirkhanian Interviews Steve Reich*, Other Minds Sound Archive (recorded 12 May 1980, Berkeley KPFA-FM).

the piece, according to *Los Angeles Times* critic John Rockwell. He described the piece favourably as ‘a shifting tapestry of overlapping sounds in which...different aspects of the original tune drift to the surface of one’s awareness’.⁷⁶ The humorous description he gave of the diversity of audience response is worth quoting in full:

After five minutes of insolent, insistent repetitions, part of the audience began to realize that it was being tricked. Rude remarks, centering around the notion that Reich was an idiot and that the rest of those in the audience were bovine fools, punctuated the seesawing violin sounds. Others tried to shush the malcontents. People left in droves, with varying degrees of stealth or obnoxiousness. Intense young men and women with long hair and wire-frame glasses grew visibly and vocally upset at the profanation of the temple of the new by the philistines. At the end the hall filled with battling choruses of boos, cheers and unclassifiable screams.⁷⁷

Rockwell put this adverse reaction down to the essential simplicity of the work, something ‘intrinsically foreign to technique-orientated, conservatory-trained Western musicians’ and contra to the ‘occult mystery’ jealously guarded by music critics.⁷⁸ He dryly remarked that ‘when the priests and their critical defenders feel threatened by something the people can understand, something which requires no effort to love, they retaliate with instinctive fury’.⁷⁹ But also, perhaps, because we are conditioned to expect the composer to work for us, to create a *work* of art, and when he presents masses of relatively undifferentiated material and says ‘it’s up to you’, cherished principles are uncomfortably undermined. For Rockwell, who unintentionally echoes Susan Sontag’s concept of ‘an erotics of art’, the music ‘is most intriguing because – for those who can relax their defences and their expectations of linear development, and who can contemplate sensation as such – it is beautiful’.⁸⁰

For Edward Strickland, *Violin Phase* represents ‘Reich’s first step away from the reductive simplicity of his early minimalist style’, due to its inclusion of indeterminate resulting patterns and its lack of cyclical structure ending in unison.⁸¹ It is thus seen to prefigure Reich’s later works for soloist and pre-recorded tape, such as *New York Counterpoint* (1985). Strickland, however, seems to have forgotten *Melodica*, *Come Out*, and *It’s Gonna Rain* (Part II) – pieces that all fail to end with a

⁷⁶ John Rockwell, ‘Reich and Riley: Violent Reactions to Simple Works’, *Los Angeles Times* (6 September 1970), 37.

⁷⁷ *Ibid.*

⁷⁸ *Ibid.*

⁷⁹ *Ibid.*

⁸⁰ *Ibid.*

⁸¹ Strickland, *Minimalism*, 198.

return to the basic unit in unison and do not have cyclical structures. In spite of this, Potter argues that the piece's 'increase in density of texture and counterpoint marks a significant advance', with its introduction of differing note values in the basic unit.⁸² He also argues that the introduction of given resulting patterns, as well as the freedom to create one's own (a spare staff is provided in the score for just such a purpose), allows Reich to 'transcend more easily and comprehensively the limitations of a single structural process, permitting greater flexibility in shaping the work as a whole'.⁸³ However, it is worth noting that the basic unit of *Violin Phase* remains unchanged throughout the piece and is always phased against itself. So, whilst it may appear more developed than previous works, in many ways the piece is harmonically more stunted and formally less complex than *Piano Phase*. Despite this, it does begin to abandon the myth of an 'objective', un-tampered-with process.

Reich's rhythmic ambiguity owes a significant debt to aspects of Ewe tribe cultural practice, via A. M. Jones' two-volume book *Studies in African Music* (1959). Having come into contact with this pioneering work after a lecture by Gunther Schuller in 1962, Reich pointed out that the transcriptions in it 'made an enormous impression on [him]...particularly the superimposition without coinciding downbeats of regular repeating patterns of varied lengths in what [Jones] notated as 12/8'.⁸⁴ Looking more closely at the rhythmic construction of *Violin Phase*'s basic unit, it is possible to see the presence of this 'African' 12/8 ambiguity. The first line of Figure 4.5, which uses Reich's notation, shows how the unit can be divided perceptually into subunits of two, three, and also four + two, giving it a characteristic multiplicity of downbeats. The lower line divides the unit into two sections which share exactly the same melodic material. This grouping of seven + five (easy to pick out aurally because of the low C \sharp which begins each subset and the open fourth at the end) shows how the unit achieves an additional level of interest and metric ambiguity. By setting up the expectation of a regular motif, the first subunit undermines it with an elongated final dyad, whilst the second cuts it short; both subunits are thus irregular and give the unit its rhythmic tension. Although repeated, the subunit is recontextualised the

⁸² Potter, *Four Musical Minimalists*, 189.

⁸³ *Ibid.*, 192. *Violin Phase* (1967) is published by Universal Edition (16185). Interestingly, the resulting patterns in the score are not Reich's own – they are by violinists Shem Guibbory and Paul Zukofsky.

⁸⁴ Strickland, *American Composers*, 40.

second time, as its metric placement is shifted: two small arrows show how the regular groupings serve to accent first the C \sharp and then the F \sharp , allowing one to hear this basic pattern in different ways. When notated in two voices, it is also possible to notice the confluence of distinct repeating figures within the unit itself: a modally-ambiguous arpeggiated pattern consisting of C \sharp , F \sharp , and G \sharp , and a pair of dyads (A / E and B / E). Polyphony is built into the melodic pattern itself.



Figure 4.5: analysis of *Violin Phase's* basic unit

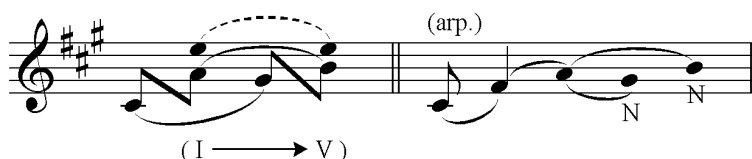


Figure 4.6: two possible voice-leading analyses of *Violin Phase's* basic subunit

The implied harmony of this basic unit is also deliberately enigmatic. Analysing its voice-leading, however, gives a hint as to two possible ways one might hear it, taking a cue from Reich's key signature of A major / F \sharp minor. Figure 4.6 shows these two possible interpretations of foreground harmony (the figurations shown appear twice in the unit). The first graph interprets the voice-leading in terms of a move from I to V in A major; this is supported by the 'unfolding' of the two chords in 6/3 inversion with parsimonious movement between the notes A and B under a dominant drone. The only problem with this reading is the presence of an F \sharp in the lower register: it either has to be interpreted as a modal inflection toward chord six, or as a displaced neighbour note to the octave E above. Another interpretation is

offered by the next graph. Here, the voice-leading is seen as the prolongation of an F \sharp minor tonality via an initial arpeggiation (and a V – I hint), followed by the upper and lower neighbour notes of the third scale degree. This reading is also problematic, due to the E in the upper register: it either has to be read as part of the prolongation of an F \sharp m7 chord, or as a displaced neighbour note to the first scale degree an octave below. Furthermore, insistent emphasis on the E / B dyad tends to undermine this F \sharp modality. Rather than presenting one of these interpretations as more fitting than the other, it might make sense to see them as somehow superimposed, or simultaneously present throughout; a piece which uses only one basic unit must leave enough room for harmonic ambiguity. As the various resulting patterns are introduced, their individual tonality and melodic contour has the potential to guide the listener's attention toward a particular interpretation, or a series of interpretations, as the piece progresses. The soloist is thus given the freedom and ability to affect perception of tonal motion through the course of the piece.

What is perhaps most remarkable about *Violin Phase* is its structure, and the way performance latitude is built into it. In a move which represents both a departure from *Piano Phase* and an echo of earlier works such as *Melodica*, the phasing cycle is not returned to unison. Rather, two separate phasing processes occur which serve to 'lock' a particular relationship in for the rest of the piece and which are then used as the basis for a kind of structured improvisation. Reich therefore uses these phasing processes not as ends in themselves, but as means to the production of modal ostinati which are then used as raw material for the creation of new melodies. Focus is thereby transferred from the process itself (and its author / instigator) to the performer's ability to find an idiosyncratic path through it. Figure 4.7 shows the various aggregate patterns produced by the phase shifting during the piece, with unfilled diamond note heads representing the moving voice. The live violin begins by phasing the basic unit in gradual steps to its fifth quaver, a relationship which becomes part of the tape at bar 7; I have labelled it pattern A. This aggregate is repeated between 60 to 100 times and is used as the basis for the construction of a series of resulting patterns. After this, at bar 12, the live violin picks up the phasing line and gradually shifts the basic unit against pattern A (now held in the tape) to its fifth quaver, continuing where it had left off. The new aggregate produced, pattern B, is absorbed into the tape at bar 17 and is

repeated between 100 and 200 times while more resulting patterns are selected from it and themselves phased against the three ostinato tape voices.

Figure 4.7: aggregate patterns in *Violin Phase*

From Figure 4.7, it is possible to see a number of denatured teleological progressions at work within the composed structure of the piece. From bar 3 to 6, there is a gain in differentiation of material within the aggregate patterns: brackets show the presence of repeated sections, beginning at a length of four quavers and ending at a length of two, which serve to create a kind of *telos*. There is also an increase in density of texture within each pattern from bar 13 to 16, culminating with a totally-saturated aggregate. This resultant ostinato, created by the piece's overtly authored process, is notable as it ends up trisecting the original unit's twelve beats by simply repeating a four-quaver sub-pattern (although one which contains subtle variety due to the exchange of lines). The move from a basic unit to a two-voice aggregate and then to a three-voice composite of only four quavers represents a clear increase in harmonic density and, consequently, a loss of perceptual differentiation. It

is possible to argue that this performs a kind of recombinant teleology, lending the entire piece a sense of direction. A similar conclusion is reached by Richard Cohn. His contention is that some of Reich's works demonstrate a clear articulation of form based on the structuring of 'attack point density' in the accumulation of voices – something which results from careful planning by the composer. Cohn argues that 'music which starts in rhythmic unison and finishes in a state of saturation...is attending to the formal role of beginnings and endings'.⁸⁵ In addition to this, it is possible to note the presence of a short linear ascent in the lower voice of Pattern B, hinted at in the previous aggregates but insisted upon by the threefold repetition found in the final ostinato. Although its workings are not as clear as those of *Piano Phase*, the piece can also be seen to distil a short, repetitious linear energy mechanism over a long span of time. However, what must also be factored in to such a conclusion is the necessary indeterminacy of potential resulting patterns which have the potential to disrupt easy analytical observations based only on the score.

§

It is possible to see that both *Piano Phase* and *Violin Phase*, even at their most seemingly mechanical, are very carefully composed and thereby contain features which are effectively 'secrets of structure', privy only to the composer and not overtly apparent. Within the seemingly restrictive confines of their processes, these pieces actually contain considerable room for subjective manoeuvre, including contingency of perceptual response (due to deliberate ambiguity of metre and tonality), the introduction of human fallibility in performance, and the freedom to choose resulting patterns from an aggregate. Such factors combine to undermine any sense of 'objective' or 'mechanical' coercion in the music. To the various interpretations that claim Reich's process works from this period are non-teleological and an ascetic reaction to post-war American society, it is possible to present a number of refutations. Firstly, the fundamental nature of process necessarily relies on the duration of a certain period of time in order to demonstrate perceptual change: processes fundamentally concern linear progression and cannot exist in a static state. Even if what we are dealing with is a process generated by repetition, this repetition

⁸⁵ Cohn, 'Transpositional Combination', 169.

serves to create perpetual variety and contrast out of the basic material. Secondly, having deconstructed the essentialist binary opposition teleological / non-teleological, it is possible to note the presence of ‘recombinant’ attitudes toward goal-direction in Reich’s phase-shifting music. These recombinant teleologies are simulacra of traditional narrative mechanics but still involve basic elements of harmony, melody, and rhythm. Such factors combine to lend the music its own distinctive momentum and create the potential for the accumulation of linear energy. Thirdly, in relation to this denatured or expanded teleology, idiosyncratic approaches to the construction of musical desire can be seen to be ‘performed’ by the music. This occurs in ways which happen to mirror key structural tropes associated with the excesses of repetitive commercial culture and its associated realm of discourse – the systematised mass production of desire through advertising found in American society of the 1960s.



(5)

Concluding Remarks: Context and Contradiction

No music-historical survey can ever pretend to represent more than a temporary and contingent position within the continuous dialogistic flow of interpretation. What I have constructed in this dissertation is a particular narrative – one that is inevitably selective in its focus and which thereby carries certain value judgements within its fabric. The division of Reich’s creative output between 1965 and 1968 into neat thematic chapters is a scholarly device, albeit one employed for the sake of clarity and suggested by similarities between the pieces and their respective contexts; addition of subtitles suggests the possibility of an alternate pathway through the discussion. Such an act is my historical construction (in the sense that history is always a series of artificial arrangements) and the various pieces of evidence I have put forward arrive warped and refracted through subjective perception and broader swathes of ideological discourse. My desire has been to allow these mute ‘facts’ to signify by bringing them into conversation with elements of their original ‘web of culture’.¹ Gary Tomlinson argues that this activity is the interpretative responsibility of historians, as meanings ‘arise from the connections of one sign to others in its context; without such a cultural context there is no meaning, no communication’.²

In place of a simplistic narrative based on the ‘evolution’ of structure and style alone, I have presented a series of arguments which attempt to cast doubt on the premise that Reich’s works were ever culturally hermetic, had fixed meanings, or existed as reified entities. Rather than utilise these ‘works’ as an organisational category in themselves, I have attempted to use them as (imperfect) mirrors onto their socio-cultural context; they can thus be seen as the mercurial codifications of human creative action and not as autonomous objects. Focusing on the wider biographical, aesthetic, and social-political context surrounding Reich during this early period serves to de-idealise the sometimes ‘mythic’ origins of minimalist practice found in

¹ See: Gary Tomlinson, ‘The Web of Culture: A Context for Musicology’, *19th-Century Music*, Vol. 7/3 (April 1984), 350–62.

² *Ibid.*, 351.

the literature and often perpetuated by the composers themselves in interviews. It is necessary to recognise that artistic endeavour does not exist apart from society, but has a complex relationship to performances, recordings, and shifting patterns of reception tied to groups of interpreters with contrasting expectations. Uncovering the ways in which the 'Reich canon' was formed, reconfigured, and stabilised over time to exclude certain pieces allows a clearer trace of the young composer's not always coherent development to emerge.

A contextual picture of Reich during this period also helps to confront questions of originality and radicalism – attributes which invariably change over time as historical distance creates fantasies and alters connections. David Nicholls argues that 'radicalism does not exist *per se*, but rather is a function of difference when measured against contemporaneous norms'.³ Understanding these contemporaneous norms is therefore essential to constructing an accurate account of Reich's position within both musical and wider cultural practice. If Reich's work is to be considered 'experimental' – and thus lie on the periphery of established musical tradition – it is worth asking what other institutions or fields it might have related to more fittingly. Reich's links with the San Francisco Mime Troupe gave him access to an open-minded audience eager for new 'countercultural' experiences; working on film soundtracks for Robert Nelson gave him the opportunity to explore novel methods of composition that he had not pursued whilst at university, but which would provide the foundation of his later work; and the San Francisco Tape Music Center offered him an independent and alternative environment to academic serialism and high-tech electronic composition. While in New York, Reich also found a supportive aesthetic environment in the nascent downtown art scene, particularly at the distinctive Park Place Gallery. His work can be seen both to develop in response to contemporaneous trends in the plastic arts (such as Minimalism and Process art) as well as being consciously aligned with these fashionable new tendencies in order to gain a receptive public and advantageous performing opportunities. From this mutually-reinforcing platform, Reich was easily able to disseminate his theoretical ideas on musical process – informed by lively debates and polemics in the art world – and to present his idiosyncratic phase-shifting pieces in galleries, where they seemed to mirror key

³ David Nicholls, 'Avant-garde and Experimental Music', in: Nicholls (ed.), *The Cambridge History of American Music* (Cambridge: Cambridge University Press, 1998), 517.

aspects of the Manhattan zeitgeist. Audiences and critics who came to the exhibition concerts Reich was involved in were evidently willing to accept his repetitive, systematic, apparently 'impersonal', approach because of its perceptual similarities to the sculpture, painting, and conceptual art on show.

Pursuing a hermeneutic approach to this music encourages questions about its political and socio-economic meanings. The fact that Reich deliberately chose to 'set' African-American voices in his early tape works links both their subjects and their author to contemporaneous racial tensions manifest in the Civil Rights Movement, the rise of Black Power, and urban 'race' riots triggered by police brutality. As these works are not overtly concerned with social protest, they can be seen to be politically ambiguous; pushing the analysis further, they could even be seen to enact violence toward their subjects through a systematic erasure of semantic identity in conjunction with exploitation for financial gain. The way the seemingly 'objective' processes dismantle spoken fragments – originally heard as 'documentary' recordings – and transform their distinct Black vocalicity into a wash of 'White noise' embodies the naturalised racial hegemony of the avant garde and mirrors the racialised structure of American society. In terms of economics, the repetitive processes Reich employed could also be seen to reflect aestheticised tropes of post-industrial production and advertising as part of the competitive late-capitalist marketplace of post-war 'affluent society'. Consciously repetitive and systematised mass production of desire for new consumer items began to saturate American culture through the medium of television during this period. Reich's modal music can be seen to represent simulacra of this desire through its rearticulated forms of linear energy derived from a 'performative' approach to traditional teleological mechanics; I have shown that this often appeared in the form of carefully-constructed linear ascents which function to direct progression of the musical surface – a surface without depth.

Reich's early work is emblematic of a time when American university departments were effectively academic sanctuaries for elite (predominantly serial) music; boosted by European émigrés, they had become the caretakers of tradition. Reich, in contrast, was keen to find other means of support, harnessing the new growth in mass consumption of popular music via LPs and an audience critical of the power and authority of the System in its political, social, and cultural manifestations.

His music from this era challenged traditional distinctions between avant-garde and vernacular and between creative disciplines: appearing in radical Mime Troupe productions and alongside Nelson's satirical films, as well as being presented at the Tape Music Center and in New York art galleries, meant that it blurred categorical boundaries and thus demonstrated its freedom from institutional or establishment composition. Reich is quite clear about his decision in this regard: 'I certainly would rather take my chances in a commercial world, as a person, than in an academic world'.⁴ This was made possible by the availability of inexpensive tape equipment that allowed composers to work directly with sound, no longer dependent upon traditional methods of dissemination; later on, a dedicated ensemble open to experiments involving ritualised, anti-expressive approaches to performance continued this stance. The ensemble 'Steve Reich and Musicians' represented the convergence of 'classical' virtuosity, Orientalist mystique, and the flexibility and subversive appeal of a rock group. This confluence was also reflected in their concerts – long, unconventional affairs with listeners no longer forced to sit in chairs or rows and performers unrestricted by standard concert programming. In this sense, Reich's phase-shifting music is emblematic of an era of redefinitions, disruptive social transformations, and youth-driven alternatives to the mainstream status quo.

§

As well as reflecting elements of utopian, 'countercultural' aspirations, Reich's music also mirrors elements of paradox. It is historian Howard Brick's contention that America in the 1960s was an age of contradiction.⁵ Protest movements established on principles of non-violence and pacifism gradually turned to embrace armed or antagonistic tactics; democratic communities were forged at the same time as the capitalist economy emphasised the action of lone individuals, and existential anxieties contributed to a sense of social alienation; the pursuit of 'truth' and 'authenticity' was countered by the insidious effect of illusion, artifice, and stylised role-playing; confidence in the promises of modernization and technology coexisted with the awareness that these very things had brought about destruction and coercive power,

⁴ Michael Nyman, 'Steve Reich: An Interview with Michael Nyman', *The Musical Times*, Vol. 112/1537 (March 1971), 229.

⁵ Howard Brick, *Age of Contradiction: American Thought and Culture in the 1960s* (Ithaca: Cornell University Press, 1998).

corroborated by the futile and ongoing war in Vietnam and the threat of mutually assured destruction due to Cold War foreign policy; hope of cultural and artistic renewal prompting consummate personal and social change met with pessimism, despair, and hegemonic pressure from the governing System. Unsurprisingly, aspects of these ubiquitous socio-cultural contradictions can be found in Reich's work during the period.

Brick argues that during this epoch it was 'widely believed that under conditions of modernity, impersonal structures of society supplanted intimate bonds of community'.⁶ These impersonal social frameworks came as a result of post-war restructuring and the emergence of 'mass culture' in commerce and communications – factors which threatened localised coteries. Simultaneously, the desire for 'community' was elevated as a goal for protest movements and as an antidote to social alienation. Reich evidently found an identity as part of such communities in both San Francisco (the emerging New Left 'counterculture') and New York (the downtown Manhattan art scene). However, his music also self-consciously embodied what he described as 'direct contact with the impersonal...that shift of attention away from *he* and *she* and *you* and *me* outward toward *it*'.⁷ The idea (if not always the execution) of the phase-shifting process – when left to progress without human intervention as in *Pendulum Music* – thus seemed to signify broader impersonal tropes pervading American society at that time. This element of distanced creative input was also manifest in the work associated with the loose Pop art and Minimalist movements, as well as John Cage's aesthetics of indeterminacy. However, within the confines of Reich's seemingly 'objective' process works, there was considerable room for subjective manoeuvre built in through perceptual games, ambiguities, and the negotiation of different resulting patterns.

Another paradox came in the form of control: Brick proposes that during the 1960s 'contradiction between systems and the distrust of order echoed in [the] further reaches of intellectual and cultural life'.⁸ Cybernetics, biological organisms, and political hierarchies were all beginning to be understood in relation to the systems

⁶ Brick, *Age of Contradiction*, 98.

⁷ Steve Reich, 'Music as a Gradual Process' (1968), in: Reich, *Writings on Music, 1965–2000* (Oxford: Oxford University Press, 2002), 35–6 [emphasis in original].

⁸ Brick, *Age of Contradiction*, 125.

concept. It allowed connections to be drawn and critiques to be mounted against coercive institutions, and yet there existed a concurrent and deep-seated distrust of such order and of the System itself. Words such as ‘system’, ‘order’, and ‘control’ immediately suggest connections to the language of Reich’s 1968 treatise, ‘Music as a Gradual Process’, in particular to the following statement: ‘by running this material through this process I completely control all that results, but also that I accept all that results without changes’.⁹ Reich seemingly desired to reconcile the conflicting elements of systematic thought – personal freedom and dictatorial control – by arguing for a passive approach. The political implications are complex and problematic: there is no mischievous critique of the System (as one might have expected from his milieu in San Francisco or from a Cageian perspective), only a seeming capitulation to its results; yet those very results were effectively contrived by the ‘authoritarian’ composer who created the process and selected its materials in the first place. Bearing in mind some of the negative connotations of ‘systems’ at the time – due to its association with bureaucracy and militaristic Defense Department technology – it is worth critiquing Reich’s commitment to the politically-radical or subversive elements of the ‘counterculture’.¹⁰

Contradictions are also to be found when comparing Reich’s theoretical ideas with his musical output. Popular critics such as Alex Ross try to persuade us that Reich’s music ‘transpires in the open air, every move audible to the naked ear’, echoing the composer’s own comments: ‘the use of hidden structural devices in music never appealed to me’.¹¹ However, whilst noting the broader socio-political resonances of this position – related to Cold War espionage paranoia over secrecy and potential communist infiltration – it is necessary to critique how practically such ideas actually translated into compositional methodology. Under more detailed analytical

⁹ Reich, ‘Music as a Gradual Process’, 35.

¹⁰ SDS president Paul Potter’s April 1965 speech against American military escalation in Vietnam, is a clear example of anti-systematic rhetoric (quoted in Brick, *Age of Contradiction*, 132):

What kind of system is it that justifies the United States or any country seizing the destinies of the Vietnamese people and using them callously for its own purpose? What kind of system is it that disenfranchises people in the South, leaves millions upon millions of people throughout the country impoverished and excluded from the mainstream and promise of American society, that creates faceless and terrible bureaucracies and makes those the place where people spend their lives and do their work, that consistently puts material values before human values – and still persists in calling itself free [?]

¹¹ Alex Ross, *The Rest is Noise: Listening to the Twentieth Century* (London: Harper Perennial, 2009), 546; Reich, ‘Music as a Gradual Process’, 35.

scrutiny, it is possible to find an abundance of covert detail, calculated teleology, and manifest aesthetic or practical involvement on the part of the composer – factors necessary to sustain the processes themselves and transform them from abstract, conceptual ideas into pleasing works of art which could find an enthusiastic audience. Where Cage's processes were overt and democratic (even if not audible), Reich's were messy, subjective, and concerned primarily with crafting an identifiably-personal, traditionally-reified, saleable musical composition.

There is thus a conflict between Reich's affiliations with the Process art movement and the pragmatics of his work. The title of the Whitney Museum show discussed in Chapter 1, 'Anti-Illusion: Procedures / Materials', misses out one crucial element necessary for a compositional triangle to be complete: the author, or agent, who subjects various materials to the procedures mentioned. The title might be re-written more accurately as 'Procedures / Materials / Agency'. Acknowledging Reich's share in an 'age of contradiction', it is nevertheless possible to notice clear anti-illusionistic tendencies at work within his music simultaneous to artistic deception. The phase-shifting process – although not responsible for every note in a piece – does serve to bear aspects of the constructive devices employed. His pieces seem to urge the listener to take note of compositional labour: the desire for the constitutive input to 'come out to show them' mirrored a contemporary youth-fuelled drive toward self-expression and openness, especially in relation to the Gay Liberation Movement and the nascent 'hippie' sensibility. Reich ostensibly allowed the listener a fascinating glimpse into his studio and methodology. Reflecting on the prefix to the title of this dissertation, I hope it is clear now why such a seemingly contradictory statement is applicable to Reich's work during the late 1960s: his distinctive aesthetic encapsulated the paradoxical tendencies of a society in flux.



RESOURCE LIST

Bibliography

- Adlington, Robert (ed.), *Sound Commitments: Avant-Garde Music and the Sixties* (Oxford: Oxford University Press, 2009).
- Adorno, Theodor W., *Philosophy of Modern Music* (1949; London: Continuum, 2007).
- _____, *Quasi Una Fantasia: Essays on Modern Music* (1963; London: Verso, 1992).
- Alburger, Mark, 'Steve Reich: Early Phase', *21st Century Music*, Vol. 11/4 (April 2004), 1–8.
- Ames, Charles, 'Reflections on James Tenney', *Perspectives of New Music*, Vol. 25/1 (Winter – Summer 1987), 455–8.
- Attali, Jacques, *Noise: The Political Economy of Music* (Manchester: Manchester University Press, 1985).
- Barthes, Roland, *Image-Music-Text* (London: Fontana Press, 1977).
- Battcock, Gregory (ed.), *Minimal Art: A Critical Anthology* (1968; Berkeley: University of California Press, 1995).
- Benjamin, Walter, *Illuminations* (1955; London: Pimlico, 1999).
- Bergeron, Katherine & Philip V. Bohlman (eds.), *Disciplining Music: Musicology and its Canons* (Chicago: University of Chicago Press, 1992).
- Bernard, Jonathan W., 'The Minimalist Aesthetic in the Plastic Arts and in Music', *Perspectives of New Music*, Vol. 31/1 (Winter 1993), 86–132.
- _____, 'Minimalism, Postminimalism, and the Resurgence of Tonality in Recent American Music', *American Music*, Vol. 21/1 (Spring 2003), 112–33.
- Bernstein, David W. (ed.), *The San Francisco Tape Music Center: 1960s Counterculture and the Avant-Garde* (Berkeley: University of California Press, 2008).
- Bloom, Harold, *The Anxiety of Influence: A Theory of Poetry* (1973; Oxford: Oxford University Press, 1997).
- _____, *A Map of Misreading* (1975; Oxford: Oxford University Press, 2003).
- Bodien, Earl, 'The Films of Robert Nelson', *The Film Quarterly*, Vol. 20/3 (Spring 1967), 50–2.
- Born, Georgina & David Hesmondhalgh (eds.), *Western Music and its Others: Difference, Representation and Appropriation in Music* (Berkeley: University of California Press, 2000).
- Brick, Howard, *Age of Contradiction: American Thought and Culture in the 1960s* (Ithaca: Cornell University Press, 1998).
- Brooks, William, 'The Americas, 1945–70', in: Robert P. Morgan (ed.), *Modern Times: From World War I to the Present* (London: Macmillan Press, 1993).
- _____, 'Music in America: an Overview (part 2)', in: David Nicholls (ed.), *The Cambridge History of American Music* (Cambridge: Cambridge University Press, 1998).

- _____, 'Music and Society', in: David Nicholls (ed.), *The Cambridge Companion to John Cage* (Cambridge: Cambridge University Press, 2002).
- Burns, Kristine H., 'Morton Subotnick', *Grove Music Online* <<http://www.oxfordmusiconline.com>> [accessed 06.10.10].
- Butler, Cornelia H. (ed.), *Afterimage: Drawing Through Process* (Cambridge, Massachusetts: MIT Press, 1999) [Museum of Contemporary Art, Los Angeles].
- Cage, John, *Silence: Lectures and Writings* (1968; London: Marion Boyars, 2006).
- _____, *A Year from Monday: Lectures and Writings* (1968; London: Marion Boyars, 2009).
- Chave, Anna C., 'Minimalism and Biography', *The Art Bulletin*, Vol. 82/1 (March 2000), 149–63.
- Clarke, David, 'Elvis and Darmstadt, or: Twentieth-Century Music and the Politics of Cultural Pluralism', *Twentieth Century Music*, Vol. 4 /1 (2007), 3–45.
- Cohn, Richard, 'Transpositional Combination of Beat-Class Sets in Steve Reich's Phase-Shifting Music', *Perspectives of New Music*, Vol. 30/2 (Summer 1992), 146–77.
- Colpitt, Frances, 'The Shape of Painting in the 1960s', *Art Journal*, Vol. 50/1 (Spring 1991), 52–6.
- Constanten, Tom, *Between Rock & Hard Places: A Musical Autobiodysey* (Eugene: Hulogosi, 1992).
- Cook, Nicholas, *A Guide to Musical Analysis* (1987; Oxford: Oxford University Press, 1994).
- _____, & Mark Everist (eds.), *Rethinking Music* (Oxford: Oxford University Press, 2001).
- _____, & Anthony Pople (eds.), *The Cambridge History of Twentieth-Century Music* (Cambridge: Cambridge University Press, 2004).
- Cott, Jonathan, 'Interview with Steve Reich' (1996), <<http://www.steverreich.com>> [accessed 29.04.10] [first appeared in the liner notes to: *Steve Reich: Works 1965–1995* (Nonesuch 79451-2, 1997)].
- Cowan, Robert, 'Reich and Wittgenstein: Notes Towards a Synthesis', *Tempo* New Series, #157 (June 1986), 2–7.
- Cross, Jonathan, *The Stravinsky Legacy* (1998; Cambridge: Cambridge University Press, 2005).
- _____, (ed.), *The Cambridge Companion to Stravinsky* (Cambridge: Cambridge University Press, 2003).
- Davies, Hugh, 'Early Reich', *The Musical Times*, Vol. 127/1718 (April 1986), 194.
- Davis, Ronald. G., *The San Francisco Mime Troupe: The First Ten Years* (Palo Alto: Ramparts Press, 1975).
- Dennis, Brian, 'Repetitive and Systemic Music', *The Musical Times*, Vol. 115/1582 (December 1974), 1036–8.
- Duckworth, William, *Talking Music: Conversations with John Cage, Philip Glass, Laurie Anderson, and Five Generations of American Experimental Composers* (New York: Da Capo Press, 1999).
- Eaton, Rebecca, 'Unheard Minimalisms: The Functions of the Minimalist Technique in Film Scores' (Ph.D. Dissertation, University of Texas at Austin, 2008).
- Epstein, Paul, 'Pattern Structure and Process in Steve Reich's *Piano Phase*', *The Musical Quarterly*, Vol. 72/4 (1986), 494–502.

- Fink, Robert, "'Arrows of Desire': Long-Range Linear Structure and the Transformation of Musical Energy' (Ph.D. dissertation, University of California at Berkeley, 1994).
- _____, 'Going Flat: Post-Hierarchical Music Theory and the Musical Surface', in: Nicholas Cook & Mark Everist (eds.), *Rethinking Music* (Oxford: Oxford University Press, 2001).
- _____, *Repeating Ourselves: American Minimal Music as Cultural Practice* (Berkeley: University of California Press, 2005).
- Ford, Andrew, *Composer to Composer: Conversations about Contemporary Music* (London: Quartet, 1993).
- Galbraith, John Kenneth, *The Affluent Society* (1958; Middlesex: Penguin Books, 1974).
- Gann, Kyle, *American Music in the Twentieth Century* (New York: Schirmer, 1997).
- Garton, Linda, 'Tonality and the Music of Steve Reich' (Ph.D. dissertation, Northwestern University, 2004).
- Gena, Peter, 'Freedom in Experimental Music: the New York Revolution', *Tri-Quarterly*, Vol. 52 (Fall 1981), 223–43.
- Gibson, John, 'Listening to Repetitive Music: Reich, Feldman, Andriessen, Autechre' (Ph.D. dissertation, Princeton University, 2004).
- Goehr, Lydia, *The Imaginary Museum of Musical Works: An Essay in the Philosophy of Music* (Oxford: Oxford University Press, 2007).
- Gopinath, Sumanth, 'Contraband Children: The Politics of Race and Liberation in the Music of Steve Reich 1965–1966' (Ph.D. dissertation, Yale University, 2005).
- _____, 'The Problem of the Political in Steve Reich's *Come Out*', in: Robert Adlington (ed.), *Sound Commitments: Avant-Garde Music and the Sixties* (Oxford: Oxford University Press, 2009).
- Gross, Jason, 'Interview with Steve Reich' (April 2000), *Perfect Sound Forever Online Music Magazine* <<http://www.furious.com/perfect>> [accessed 02.07.10].
- Griffiths, Paul, *Modern Music and After: Directions Since 1945* (Oxford: Oxford University Press, 2002).
- _____, 'Steve Reich', *Grove Music Online* <<http://www.oxfordmusiconline.com>> [accessed 27.05.10].
- Hitchcock, H. Wiley, *Music in the United States: A Historical Introduction* (Englewood Cliffs: Prentice Hall, 1974).
- Hoek, David J., *Steve Reich: a Bio-bibliography* (Westport: Greenwood Press, 2002).
- Hughes, Robert, *The Shock of the New: Art and the Century of Change* (London: Thames & Hudson, 2005).
- Jameson, Fredric, *Postmodernism; or, the Cultural Logic of Late Capitalism* (London: Verso, 1993).
- Johnson, Timothy A., 'Minimalism: Aesthetic, Style, or Technique?', *The Musical Quarterly*, Vol. 78/4 (Winter 1994), 742–73.
- Jones, Arthur M., *Studies in African Music* (Oxford: Oxford University Press, 1959).
- Keersmaeker, Anne Teresa de, 'Interview with Steve Reich' (2008), <<http://www.steverreich.com>> [accessed 29.04.10].

- Key, Stevan, 'Ramón Sender', *Grove Music Online* <<http://www.oxfordmusiconline.com>> [accessed 06.10.10].
- Kramer, Lawrence, 'Criticizing Criticism, Analyzing Analysis', *19th-Century Music*, Vol. 16/1 (Summer 1992), 76–9.
- _____, *Musical Meaning: Toward a Critical History* (Berkeley: University of California Press, 2002).
- _____, 'Musicology and Meaning', *The Musical Times*, Vol. 144/1883 (Summer 2003), 6–12.
- _____, *Critical Musicology and the Responsibility of Response: Selected Essays* (Aldershot: Ashgate, 2006).
- Krauss, Rosalind, 'Overcoming the Limits of Matter: On Revising Minimalism', *Studies in Modern Art, Vol. 1: American Art of the 1960s* (New York: The Museum of Modern Art, 1991), 123–41.
- Kotz, Liz, 'Post-Cagean Aesthetics and the "Event" Score', *October* Vol. 95 (Winter 2001), 54–89.
- Lesh, Phil, *Searching for the Sound: My Life with the Grateful Dead* (New York: Back Bay Books, 2006).
- LeWitt, Sol, 'Paragraphs on Conceptual Art' (1967) & 'Sentences on Conceptual Art' (1969), <http://www.doooss.org/articulos/idiomas/Sol_Lewitt.htm> [accessed 10.11.10].
- MacDonald, Scott, 'We were bent on having a good time: An Interview with Robert Nelson', *Afterimage*, Vol. 11/1&2 (Summer 1983), 39–43.
- _____, *Canyon Cinema: The Life and Times of an Independent Film Distributor* (University of California Press, 2008).
- Mason, Susan V. (ed.), *The San Francisco Mime Troupe Reader* (Ann Arbor: University of Michigan Press, 2005).
- McClary, Susan, 'Paradigm Dissonances: Music Theory, Cultural Studies, Feminist Criticism', *Perspectives of New Music*, Vol. 32/1 (Winter 1994), 68–85.
- _____, *Feminine Endings: Music, Gender, and Sexuality* (1991; Minneapolis: University of Minnesota Press, 2002).
- Mehring, Christine, 'Minimalism: Art History as Detective Novel', *Art Journal* Vol. 62/1 (Spring 2003), 96–8.
- Mertens, Wim, *American Minimal Music: La Monte Young, Terry Riley, Steve Reich, Philip Glass* (1980; London: Kahn & Averill, 2007).
- Meyer, James, *Minimalism: Art and Polemics in the Sixties* (New Haven: Yale University Press, 2001).
- _____, *Minimalism* (London: Phaidon, 2005) [Themes & Movements].
- Morgan, Ann Lee (ed.), 'Minimalism', 'Op Art', 'Pop Art', 'Process Art', in: *The Oxford Dictionary of American Art and Artists*, <<http://www.oxfordreference.com>> [accessed 30.08.10].
- Morgan, Robert P. (ed.), *Modern Times: From World War I to the Present* (London: Macmillan Press, 1993) [Man & Music].
- Nattiez, Jean Jacques, *Music and Discourse: Toward a Semiology of Music* (Princeton: Princeton University Press, 1990).
- Nicholls, David, 'Transethnicism and the American Experimental Tradition', *The Music Quarterly*, Vol. 80/4 (Winter 1996), 569–94.

- _____. (ed.), *The Cambridge History of American Music* (Cambridge: Cambridge University Press, 1998).
- _____, 'Avant-garde and Experimental Music', in: David Nicholls (ed.), *The Cambridge History of American Music* (Cambridge: Cambridge University Press, 1998).
- _____. (ed.), *The Cambridge Companion to John Cage* (Cambridge: Cambridge University Press, 2002).
- Noble, Eric, 'The Artist's Liberation Front and the Formation of the Sixties Counterculture' (1996), <<http://www.diggers.org/alf.htm>> [accessed 05.10.10].
- Nyman, Michael, 'Steve Reich: An Interview with Michael Nyman', *The Musical Times*, Vol. 112/1537 (March 1971), 229–31.
- _____. *Experimental Music: Cage and Beyond* (1974; Cambridge: Cambridge University Press, 1999).
- O'Neill, William L., *Coming Apart: An Informal History of America in the 1960s* (1971; Chicago: Ivan R. Dee, 2005).
- Oliveros, Pauline, 'Cues', *The Musical Quarterly*, Vol. 77/3 (Autumn 1993), 373–83.
- Oteri, Frank J., 'Elliot Carter Interview: On Difficulty', *New Music Box Online Magazine* (March 2000) <<http://www.newmusicbox.org/first-person/mar00/6.html>> [accessed 28.07.10].
- Paddison, Max, *Adorno's Aesthetics of Music* (Cambridge: Cambridge University Press, 1997).
- Patterson, David W., 'Cage and Asia: History and Sources', in: David Nicholls (ed.), *The Cambridge Companion to John Cage* (Cambridge: Cambridge University Press, 2002).
- Polansky, Larry & Michael Winter, 'James Tenney', *Grove Music Online* <<http://www.oxfordmusiconline.com>> [accessed 05.10.10].
- Potter, Keith, 'Steve Reich: Thoughts for his 50th-Birthday Year', *The Musical Times*, Vol. 127/1715 (January 1986).
- _____. *Four Musical Minimalists: La Monte Young, Terry Riley, Steve Reich, Philip Glass* (Cambridge: Cambridge University Press, 2002).
- Radano, Ronald & Philip V. Bohlman (eds.), *Music and the Racial Imagination* (Chicago: University of Chicago Press, 2000).
- Reich, Steve, 'Tenney', *Perspectives of New Music*, Vol. 25/1 (Winter – Summer 1987), 547–8.
- _____. 'Texture–Space–Survival', *Perspectives of New Music*, Vol. 26/2 (Summer 1988), 272–80.
- _____. *Writings on Music, 1965–2000* (Oxford: Oxford University Press, 2002) [edited with an introduction by Paul Hillier].
- Robertson, David, liner note to: Reich, *Phases: A Nonesuch Retrospective* (2006).
- Rockwell, John, *All American Music: Composition in the Late Twentieth Century* (New York: Knopf, 1983).
- Roeder, John, 'Beat-Class Modulation in Steve Reich's Music', *Music Theory Spectrum*, Vol. 25/2 (Autumn 2003), 275–304.
- Rose, Barbara, 'A B C Art', in: Gregory Battcock (ed.), *Minimal Art: A Critical Anthology* (1968; Berkeley: University of California Press, 1995).

- Ross, Alex, liner note to: Reich, *Phases: A Nonesuch Retrospective* (2006).
- _____, *The Rest is Noise: Listening to the Twentieth Century* (London: Harper Perennial, 2009).
- Salzman, Eric, *Twentieth-Century Music: An Introduction* (Englewood Cliffs: Prentice Hall, 2002).
- Sandford, Mariellen, R. (ed.), *Happenings and Other Acts* (London: Routledge, 1995) [Worlds of Performance].
- Schafer, William J. (ed.), *The Truman Nelson Reader* (Massachusetts: University of Massachusetts Press, 1989).
- Schenker, Heinrich, *Five Graphic Music Analyses* (1933; New York: Dover Publications, 1969).
- Scherzinger, Martin, 'The "New Poetics" of Musical Influence: A Response to Kevin Korsyn', *Music Analysis*, Vol. 13/2 (July – October 1994), 298–309.
- Schwarz, David, 'Listening Subjects: Semiotics, Psychoanalysis, and the Music of John Adams and Steve Reich', *Perspectives of New Music*, Vol. 31/2 (Summer 1993), 24–56.
- Schwarz, K. Robert, 'Steve Reich: Music as a Gradual Process' [Parts 1 & 2], *Perspectives of New Music*, Vol. 19/1 (Autumn 1980 – Summer 1981), 373–92; Vol. 20/1 (Autumn 1981 – Summer 1982), 225–86.
- _____, 'Process vs. Intuition in the Recent Works of Steve Reich and John Adams', *American Music*, Vol. 8/3 (Autumn 1990), 245–73.
- _____, *Minimalists* (London: Phaidon, 1996).
- Serra, Richard, 'Article written for MacDowell Medal Award Ceremony in Honour of Steve Reich (2005)', <<http://www.steverreich.com>> [accessed 29.04.10].
- Skipp, Benjamin, 'Review [untitled]', *Music & Letters* Vol. 89/1 (February 2008), 109–12.
- Small, Christopher, *Musicking: The Meanings of Performing and Listening* (Middletown: Wesleyan University Press, 1998).
- Smith, Geoff, *American Originals: Interviews with 25 Contemporary Composers* (London: Faber & Faber, 1994).
- Sontag, Susan, *Against Interpretation and Other Essays* (1966; New York: Octagon Books, 1978).
- Straus, Joseph N., 'The "Anxiety of Influence" in Twentieth-Century Music', *The Journal of Musicology*, Vol. 9/4 (October 1991), 430–47.
- Strickland, Edward, *American Composers: Dialogues on Contemporary Music* (Indianapolis: Indiana University Press, 1991).
- _____, *Minimalism: Origins* (Indianapolis: Indiana University Press, 2000).
- _____, 'Jon Gibson', *Grove Music Online* <<http://www.oxfordmusiconline.com>> [accessed 27.05.10].
- _____, 'Terry Riley', *Grove Music Online* <<http://www.oxfordmusiconline.com>> [accessed 27.05.10].
- Sun, Cecilia, 'Experiments in Musical Performance: Historiography, Politics, and the Post-Cagian Avant-Garde' (Ph.D. dissertation, University of California, Los Angeles, 2004).
- Suzuki, Dean, 'Minimal Music and the Composers', liner note to: Gibson, *In Good Company* (1992).

- Taruskin, Richard, 'Revising Revision', *The Journal of the American Musicological Society*, Vol. 46/1 (April 1993), 114–38.
- _____, *The Oxford History of Western Music* (Oxford: Oxford University Press, 2005) [Volume 5: The Late Twentieth Century].
- Taylor, Timothy D., 'Pauline Oliveros', *Grove Music Online* <<http://www.oxfordmusiconline.com>> [accessed 05.10.10].
- Tomlinson, Gary, 'The Web of Culture: A Context for Musicology', *19th-Century Music*, Vol. 7/3 (April 1984), 350–62.
- Toop, Richard, 'Expanding Horizons: The International Avant-Garde, 1962–75', in: Nicholas Cook & Anthony Pople (eds.), *The Cambridge History of Twentieth-Century Music* (Cambridge: Cambridge University Press, 2004).
- Varndoe, Kirk, 'Minimalism and After', *MoMA*, Vol. 4/1 (January 2001), 2–5.
- Whitesell, Lloyd, 'White Noise: Race and Erasure in the Cultural Avant-Garde', *American Music*, Vol. 19/2 (Summer 2001), 168–89.
- Whittall, Arnold, *Musical Composition in the Twentieth Century* (Oxford: Oxford University Press, 1999).
- Wollheim, Richard, 'Minimal Art', in: Gregory Battcock (ed.), *Minimal Art: A Critical Anthology* (1968; Berkeley: University of California Press, 1995).
- Zelevansky, Lynn, 'Ad Reinhardt and the Younger Artists of the 1960s', *Studies in Modern Art, Vol. 1: American Art of the 1960s* (New York: The Museum of Modern Art, 1991), 16–37.

Newspaper Articles

- Ericson, Raymond, 'Giving the Composer a Helping and Free Hand', *New York Times* (3 May 1970), 15 & 18.
- Freed, Richard D., 'Avant-Garde Gives Electronic Display', *New York Times* (28 August 1965), 12.
- Glueck, Grace, 'The Park Place Puts on a Stunner', *New York Times* (11 March 1967), 25.
- _____, 'Air, Hay and Money', *New York Times* (25 May 1969), 42.
- Henahan, Donal, 'Repetition, Electronically Aided, Dominates Music of Steve Reich', *New York Times* (28 May 1969), 37.
- _____, 'Who Dreams of Being a Beethoven?', *New York Times* (29 June 1969), 17.
- Jenkins, Mark, 'Steve Reich's Parts of Speech', *The Washington Post* (26 April 1989), 7.
- Johnson, Tom, 'Experimental Music Takes a Trip to the Art World', *New York Times* (5 December 1976), 17 & 28.
- Kisselgoff, Anna, 'Slipping In and Out of Phase With Steve Reich', *New York Times* (26 September 1998), 7.
- Kostelanetz, Richard, 'Making Music of The Sound of Words', *New York Times* (24 July 1977), 22.
- Kresh, Paul, 'An Art Between Speech And Music', *New York Times* (3 April 1983), 6 & 20.
- Leider, Philip, 'To Introduce a New Kind of Truth', *New York Times* (25 May 1969), 41.

- McLellan, Joseph, 'American Composers, Setting the Standard', *The Washington Post* (5 November 1989), 6–7.
- Moore, Carman, 'Park Place Pianos', *The Village Voice*, Vol. 12/23 (23 March 1967), 15.
- _____, 'Zukofsky', *The Village Voice*, Vol. 14/29 (1 May 1969), 28.
- Rockwell, John, 'Reich and Riley: Violent Reactions to Simple Works', *Los Angeles Times* (6 September 1970), 37.
- _____, 'Trends in New Music on Disks', *New York Times* (12 March 1978), 19–20.
- Schwarz, K. Robert, 'Steve Reich, Back When', *New York Times* (7 February 1988), 32.
- Strongin, Theodore, 'When Teen-agers Get to College...', *New York Times* (10 December 1967), 32 & 36.
- _____, 'Is Timelessness Out of Style?', *New York Times* (21 December 1969), 26 & 30.
- Willis, Thomas, 'Gift Suggestions No. 2: Why Not Test Out the Far-Out?', *Chicago Tribune* (26 November 1967), 13.
- _____, 'Zeitgeist Album a Gem of Satire', *Chicago Tribune* (17 May 1970), 3.
- Wilson, William, 'Berkeley Museum Inaugural', *Los Angeles Times* (9 November 1970), 1 & 16.
- Winer, Linda, 'Sounds for Children', *Chicago Tribune* (12 December 1971), 12.

Audio Material

- Thin Air*: 'An Interview with Terry Riley, Robert Ashley, and William Maraldo', Other Minds Sound Archive (recorded: 22 November 1969, Berkeley KPFA-FM).
- Information Transmission, Modulation, and Noise*: 'Steve Reich and Jon Gibson in Conversation', Other Minds Sound Archive (recorded: 6 November 1970, Berkeley KPFA-FM).
- 'Steve Reich & Musicians in Concert', Other Minds Sound Archive (recorded: 7 November 1970, UC Berkeley Museum).
- Ode to Gravity*: 'Joanna Brouk Interviews Steve Reich', Other Minds Sound Archive (recorded: 12 December 1973, Berkeley KPFA-FM).
- _____: 'Charles Amirkhanian Interviews Steve Reich', Other Minds Sound Archive (recorded: 12 May 1980, Berkeley KPFA-FM).
- 'Steve Reich, Michael Berkeley, and Gavin Bryars in Conversation', British Library Sound Archive: ICA Talks (recorded: 28 January 1986, London Institute of Contemporary Arts).
- Discovering Music*: '1964 – The Rise of Minimalism', BBC Radio 3 [broadcast: 24 October 2010].
- Composer of the Week*: 'Steve Reich', BBC Radio 3 [broadcast: 25–9 October 2010].

Video Material

- Kitchell, Mark (dir.), *Berkeley in the Sixties* (1990), Kitchell Films / P.O.V. [DVD, 2007].
- Kubrick, Stanley (dir.), *Dr. Strangelove; or: How I Learned to Stop Worrying and Love the Bomb* (1964), Hawk Films / Columbia Pictures [DVD, 2003].

Morris, Errol (dir.), *The Fog of War: Eleven Lessons From the Life of Robert S. McNamara* (2003), Sony Pictures Classics [DVD, 2004].

Nelson, Robert (dir.), *Plastic Haircut* (1963), <<http://www.artbabble.org/video/plastic-haircut>> [accessed 13.08.10].

_____, *Oh Dem Watermelons* (1965) <<http://www.youtube.com/watch?v=THDEEu5LMTo>> [accessed 09.08.10].

The South Bank Show: 'Steve Reich' (Season 31/11), LWT 2006 [broadcast: ITV 1, 10 December 2006].

Scores

Reich, Steve, *Melodica* (1966): Reich, *Writings on Music*, 23.

_____, *Reed Phase [Saxophone Phase]* (1966): *Source*, #3 (1968), 69–71.

_____, *Piano Phase* (1967): Universal Edition 16156.

_____, *Violin Phase* (1967): Universal Edition 16185.

_____, *Pendulum Music* (1968): Universal Edition 16155.

Riley, Terry, *In C* (1964): <[http://imslp.org/wiki/In_C_\(Riley,_Terry\)](http://imslp.org/wiki/In_C_(Riley,_Terry))> [accessed 18.05.10].

Discography

Coltrane, John, *My Favourite Things*, Atlantic 1361 (1961).

Dylan, Bob, *The Freewheelin' Bob Dylan*, Columbia CL1986 (1963).

Gibson, Jon, *In Good Company*, Point Music 434 873-2 (1992).

Krieger, Ulrich, *Early American Minimalism: Walls of Sound II*, Sub Rosa SR218 (2007).

Reich, Steve, *Live / Electric Music*, Columbia Masterworks MS7265 (1968).

_____, *Octet; Music for a Large Ensemble; Violin Phase*, ECM New Series 1168 (1980).

_____, *Early Works*, Elektra Nonesuch 9 79169-2 (1987).

_____, *Phase Patterns; Pendulum Music; Piano Phase; Four Organs*, WERGO 6630-2 (1999).

_____, *Phases: A Nonesuch Retrospective*, Nonesuch 7559-79962-2 (2006).

Riley, Terry, *Reed Streams*, Mass Art Inc. M-131 (1965).

_____, *In C*, CBS MK7178 (1968).

_____, *Music for 'The Gift'*, Elision Fields EF105 (2007) [Organ of Corti Archive series].

Sonic Youth, *Goodbye 20th Century*, SYR 4 (1999).

Various, *New Sounds in Electronic Music*, Odyssey 32 16 0160 (1967) [Music of Our Time series].

_____, *Music from Mills*, Mills College MC001 (1986).