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Zeitschrift der Gesellschaft für Musiktheorie

DOI:
[10.31751/1003](https://doi.org/10.31751/1003)

Published: 01/06/2019

Publisher's PDF, also known as Version of record

[Cyswllt i'r cyhoeddiad / Link to publication](#)

Dyfyniad o'r fersiwn a gyhoeddwyd / Citation for published version (APA):
Bakker, T., & ap Sion, P. (2019). The Order of Things. Analysis and Sketch Study in Two Works by Steve Reich. *Zeitschrift der Gesellschaft für Musiktheorie*, 16(1), 99-122.
<https://doi.org/10.31751/1003>

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Bakker, Twila / ap Siôn, Pwyll (2019): The Order of Things.
 Analysis and Sketch Study in Two Works by Steve Reich. ZGMTH
 16/1, 99–122. <https://doi.org/10.31751/1003> (<https://doi.org/10.31751/1003>)

eingereicht / submitted: 06/07/2018
 angenommen / accepted: 16/11/2018
 veröffentlicht / first published: 30/06/2019
 zuletzt geändert / last updated: 30/06/2019

The Order of Things

Analysis and Sketch Study in Two Works by Steve Reich

Twila Bakker, Pwyll ap Siôn

This article explores the boundaries that lie between analysis and sketch study, as found in two works by American composer Steve Reich (b. 1936). The article begins by examining the relationship between analysis and sketch study in relation to minimalist music. From this initial overview, the authors propose that one of the dangers intrinsic to sketch study—not saying anything particularly revealing about the musical work—can also be found in musical analysis. To combat this inherent weakness, the article advocates what William Kinderman has described as an “*integrated approach*” whereby musical analysis takes guidance from sources” (2009, 7). Kinderman’s “integrated” approach is applied during the second half of the article, when two case studies relating to Reich’s compositions— both of which have previously received detailed analytical attention by other scholars—are examined in more detail. In analyzing Reich’s music, these scholars did not have access to the wealth of sketch materials now housed at the Paul Sacher Stiftung (PSS) Basel. In the first case study, John Roeder’s account, published in 2003, of the first movement of Reich’s popular *New York Counterpoint* (1985) is read against the authors’ own research of the composer’s extant sketches held at PSS. Likewise, a second case study examines Ronald Woodley’s article, published in 2007, of Reich’s *Proverb* (1996) in relation to the work’s sketch materials. The article will conclude by noting that while sketch studies should not be viewed as a kind of “holy grail”—revealing hidden truths or inner meanings about a work and unlocking the door to the composer’s inner thoughts and working processes—the working documents can (and do) offer insights that analysis does not always provide.

Der Beitrag untersucht die Grenzen zwischen Analyse und Skizzenstudien am Beispiel von zwei Werken des amerikanischen Komponisten Steve Reich (geb. 1936). Der Artikel beginnt mit einer Untersuchung des Zusammenhangs zwischen Analyse und Skizzenstudien in Bezug auf minimalistische Musik. Ausgehend von diesem Überblick wird vorgeschlagen, dass eine der Gefahren, die dem Skizzenstudium innewohnt – nämlich nichts besonders Aufschlussreiches über das musikalische Werk zu sagen – auch die Musikanalyse betreffen kann. Um diese inhärente Schwäche zu bekämpfen, befürwortet der Artikel das, was William Kinderman als »integrativen Ansatz« beschrieben hat, bei dem die musikalische Analyse von Quellen geleitet wird (2009, 7). Kindermans »integrativer« Ansatz wird in der zweiten Hälfte des Artikels angewendet. Dort werden zwei Fallstudien anhand von Steve Reichs Kompositionen – die beide zuvor von anderen Wissenschaftlern ausführlich analysiert worden sind – näher diskutiert. Bei den frühen Analysen von Reichs Kompositionen hatten diese Wissenschaftler keinen Zugang zu dem umfangreichen Skizzenmaterial, das sich heute in der Paul Sacher Stiftung (PSS) Basel befindet. In der ersten Fallstudie wird John Roeders 2003 veröffentlichte Studie zum ersten Satz von Reichs populärem Werk *New York Counterpoint* (1985) vergleichend zur eigenen Forschung der Autor*innen über die vorhandenen Skizzen des Komponisten in der PSS gelesen. Ebenso untersucht eine zweite Fallstudie den 2007 veröffentlichten Artikel von Ronald Woodley über Reichs *Proverb* (1996) in Bezug auf die Skizzenmaterialien des Werks. Der Artikel schließt mit der Feststellung, dass Skizzenstudien zwar nicht als eine Art »heiliger Gral« angesehen werden sollten, die notwendigerweise verborgene Wahrheiten oder innere Bedeutungen über ein Werk enthüllten und die Tür zu den inneren Gedanken und Arbeitsprozessen des Komponisten öffneten. Dennoch können Skizzen als Arbeitsdokumente Einblicke bieten, die eine Musikanalyse nicht immer zu liefern vermag.

SCHLAGWORTE/KEYWORDS: Analyse; analysis; New York counterpoint; Proverb; sketch studies; Skizzenstudien; Steve Reich

*For it is not a question of linking consequences, but of grouping and isolating,
 of analysing, of matching and pigeon-holing concrete contents;
 there is nothing more tentative [...] than the process of establishing an order among things.
 Michel Foucault¹¹*

The boundary between musical analysis and sketch study often depends on the perspective of the observer.^[2] An examination of both elements can offer a more complete understanding of the work in question than what either alone might do on its own. This article seeks to examine the relationship between sketch study and analysis as manifested in two works by American composer Steve Reich (b.1936), namely *New York Counterpoint* (1985) and *Proverb* (1995).

We will begin by providing an overview of analytical approaches specifically applied to minimalist music, locating them within the complex historical development of sketch study specifically and analysis in general. From this we propose that a common criticism directed towards sketch study – not saying anything particularly revealing about a musical work – can also be applied to musical analysis. In order to overcome this deficit, we advocate William Kinderman’s “*integrated approach*” whereby musical analysis takes guidance from sources,” with a study of the creative process, while also drawing on analytical insights.^[3] The “integrated” approach is put into practice in the second half of the article where the focus is placed on two case studies relating to Reich’s compositions, both of which have previously received detailed analytical attention by other scholars who did not have access to sketch materials now housed at the Paul Sacher Stiftung (PSS), Basel, Switzerland, to confirm or deny their findings.

In the first case study, John Roeder's account of the first movement of Reich's well-known work for multiple clarinets, *New York Counterpoint*, is read against the authors' own research on the composer's extant sketches held at PSS. A second case study similarly examines Ronald Woodley's article on Reich's *Proverb* in relation to the work's sketch materials, although each author's analytical and methodological approaches are markedly different, as explained later. Not only have both these works been subject to intense analytical scrutiny, they have also been selected from pivotal moments in Reich's compositional development. *New York Counterpoint* is the final chamber work that Reich composed before the adoption of music notation software (MNS) while *Proverb* is the first major work for voices and ensemble written after Reich's adoption of a second version of MNS.^[4] This article's main aim is therefore to explore what Roeder and Woodley's analyses reveal that is – or is not – confirmed by the sketch materials themselves.

Advocates of the "integrated approach" note that sketch studies serve to confirm an analytical reading of the work, while at the same time blatantly contradicting previously-held views. Drawing on sketch study and analysis can therefore lead to a more complex understanding of the work in question. In semiotic terms, both elements exist at the intersection between what Jean-Jacques Nattiez referred to as the "poietic" (aspects relating to the work's "production," of which sketches form one element), and the "esthetic" (the work's "reception," which includes analysis).^[5] In this tripartite relationship, analysis can never truly be "neutral" (Nattiez's third element), drawing as it does either directly or indirectly, consciously or subconsciously, on both dimensions. While sketch studies should not be viewed as a kind of "holy grail" – revealing a work's hidden truths and inner meanings or unlocking the door to the composer's inner thoughts and working processes – this article contends that such working documents can (and do) propose insights that analysis cannot always provide. Furthermore, in the case of Steve Reich's music, negotiating the interface between analysis and sketch study appears to contradict the claim made by several authors that the composer's development of musical material became far freer and less prescriptive during his "post-minimal" phase.^[6] In fact, closer scrutiny of Reich's sketch materials suggests that his compositional approach, if anything, became more rigorous during the 1980s and 1990s. However, before turning our attention closer to Reich's music, it is first of all necessary to explore the interface between analysis and sketch study in more detail.

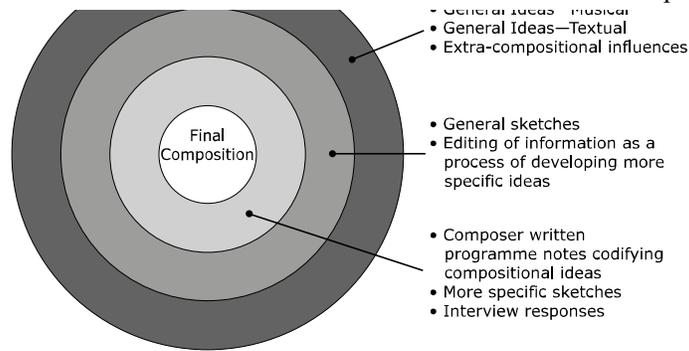
ANALYSIS, SKETCH STUDY, AND ACCESS TO CRITIQUE

Analysis and sketch study have coexisted for many years as rather strange bedfellows. Reflecting on a point made by Nicolas Marston that they sometimes form "dangerous liaisons," Friedmann Sallis nevertheless suggests that analysis and sketches can work symbiotically, arguing that "[without] knowledge of both sides of the creative process, a thorough analysis of the completed work would be impossible."^[7] Analysts, Sallis claims, are tempted to seek out information via composers' working documents, trawling through files and folders in search of fragments that support a particular view or claim about a work.^[8] This search for legitimacy – particularly in analytical musicology – is born out of a condition described by Richard Taruskin as "the poietic fallacy"; namely, a misconception which rests on the notion that "truth" can be wrestled from the work by somehow tapping into the composer's internal thought-processes, accessed through sketches, pre-compositional plans, verbal musings, reflections, and similar ephemera. According to Taruskin, the poietic fallacy stems from "the conviction that what matters most (or more strongly yet, that all that matters) in a work of art is the making of it, the maker's input."^[9] Writing in the early 1980s, Joseph Kerman raised concerns regarding the futility of drawing on musical sketches as a means of illuminating analysis, observing that while they might focus one's understanding of the music "by alerting us to certain specific points about it, certain points that worried the composer," we should remain vigilant of falling into "the trap of assuming they are the *only* points that worried or interested [the composer]."^[10]

Perhaps ironically, Kerman's statement is itself tinged with more than a hint of authorial supremacy. In his examination of the tussle between analyst and composer, the composer's view always prevails.^[11] Still, whatever approach one adopts, the relationship between sketch study and analysis remains ambiguous and complex. As already noted, over the years analysis has also aimed towards the hermeneutic high ground. As Susan McClary observes, summarizing Kerman, music theory "offers self-contained formal analyses *purported* to be the truth, the whole truth [and] nothing but the truth."^[12] Kerman forewarned the emergence of analysis as a metalinguistic discourse, that – in the wrong hands – could easily become an end in itself rather than a means to an end. Analysis is often driven by a need to provide validity for complex musical works – to justify their existence in order to account for their (and its) *raison d'être*.^[13] In doing so, analysis ended up serving its own purpose rather than those works it purported to illuminate. In response to these concerns, sketch study set itself up in certain quarters as a viable alternative to analysis. Yet, soon enough, it too came under threat with the advent of new musicological approaches during the 1990s. Those associated with it brought a wide range of methodologies associated with subjects ranging from anthropology, sociology, linguistics, and reception history to gender studies, all of which served to emphasize the point that a whole range of musicological interpretations were not only possible, but indeed desirable.^[14]

Underpinning in various ways the new musicology project was the notion that a composer's music could not (and should not) be reduced to a single set of meanings. This point is particularly salient when considering Reich's music. The composer's own direct and clear accounts of his music in program notes and interviews gives the impression that everything has been said about it. Whether intentionally or not, Reich's writings present his music in a kind of positivist light that goes against the grain of new musicology. The question remains: since poietic traces are the unintentional by-products of creativity rather than carefully curated public offerings, are these traces somehow inherently more truthful and therefore less likely to forbid critique? Both analysis and sketch study seem to be caught up in new musicology's web of culture, with each on their own providing only tantalizing glimpses of what a thoroughgoing and considered reading of a work might in fact offer.





Example 1: Overview of Reich's working method as revealed in his sketches

Example 1 attempts to contextualize in broad terms the layers, stages, and processes that result in the creation of a new work. Along the outer, dark-colored layer, one finds what might loosely be described as formative or "pre-compositional materials" – initial thoughts and ideas that relate to extra-musical texts or to previous works by (in this case) Reich himself, or by other composers. This then leads on to a second, lighter layer, with the formulation of more specific ideas relating to the new work, including the first stages of musical sketching. Further, more detailed sketches (which, in Reich's case, often entail shuttling back and forth between initial, paper-based and finalized drafts appearing on computer files), alongside the composer's now crystalized thoughts and views, finally reveal the work in its "complete" form, as shown in the white, central portion of the "onion."

Example 1 is neither unique to Reich nor any other composer or composition *per se*. Likewise, while it reflects a gradual shift from the general to the specific – "outer" to "inner" – a musical work in fact often emerges from the constant to-ing and fro-ing from one layer to the next. How then do analysis and sketch study feed into this process? The use of analysis to reveal the meaning of a work merely focuses on the central kernel – the "work" itself: the end of the process. Bringing into play sketch study (with all its concomitant notational and non-notational forms and practices) not only reveals some of these hidden outer layers, but also allows the musicologist to explore interactions between them. The further one moves away from the center, the more "private" and "hidden" this language typically becomes, as its material is never intended for anyone other than the composer. However, sketches can demonstrate important matters, including false starts, failed attempts, or previously unknown points of reference or contact with a formative work.^[15]

Particular interest in Reich's sketches amongst scholars relates to the fact that analysts' engagement with minimalist music has often been an uneasy one. This reluctance may have stemmed from the prejudicial notion that minimalist music appeared to lack content – a notion confirmed in the eyes of some by the fact that its play with pattern and surface detail rendered its form depthless. Many of minimalism's stylistic features – repetition, drones, and audible structures – exposed a weakness inherent in formalist analysis: namely, that it merely produced a series of true statements that did not say anything especially revealing about a musical work.^[16] Still, analyses of minimalist works appeared more frequently from the 1990s onwards, drawn to the idea of deconstructing Reich's process-orientated works to their constituent parts.^[17] Such analyses focused on the importance of musical perception, a notion established early on in minimalism's history in Reich's emphasis on compositions that foregrounded audible structures and "perceptible processes."^[18] Since then, studies have drawn in various ways on mathematics,^[19] contour theory,^[20] phylogenetic resemblances,^[21] and cognitive processing to uncover what the audience is (or could be) experiencing when listening to minimalist music.

Sketch studies of Reich's works have become far more prevalent with the acquisition of the composer's collection at the PSS. Reich's seminal work *Drumming* (1971) has been examined through the lens of sketch study by several scholars. Kerry O'Brien has traced the origins of *Drumming* to a rhythmic kernel documented by the composer in notebooks and tapes from his time as a student of Gideon Alorwoye in Accra during the summer of 1970. The sensation of metric disorientation heard at the beginning of *Drumming* also has its roots in Reich's own experience of transcribing rhythmic patterns from lessons with Alorwoye.^[22] Likewise, Tobias Robert Klein has explored Reich's visit to Ghana from the wider context of research conducted by the composer during 1970, discovering tapes made by Reich that combined recordings from his drum lessons in Ghana with LP dubbings of Notre Dame organum alongside music originating in Bali, India, Japan, Ethiopia, Congo, and the Sahara. This mingling of influences is also found in the sketches for *Drumming*, where colonial ethnomusicological quotations by Arthur H. Fox Strangeways about Indian music are mixed with what Klein terms "vermeintlich afrikanischen Patternexperimente."^[23] Through exposing these and other eclectic influences found in Reich's sketch materials, Klein teases out a series of complex issues relating to perception, (mis)appropriation, social communication, and improvisation that are all bound up in the creation of *Drumming*, simultaneously positioning the work *closer* to its African roots while at the same time resonating with a wide and varied range of musical references and influences.

Russell Hartenberger has also written at length about Reich's works from the 1970s. Drawing on his first-hand experiences as one of the principal members of the composer's touring ensemble from 1970 onwards, Hartenberger also turns to the composer's sketches to support his argument that a new kind of performance practice evolved in parallel with the development of Reich's musical style.^[24] Other works written for groups external to Reich's ensemble have also undergone sketch study scrutiny, including Keith Potter's study of *Variations for Winds, Strings and Keyboards* (1979) and Heidy Zimmerman's discussion of *Different Trains* (1988).^[25]

Taken together, sketch study and analysis are situated along what can be described as the "hermeneutic spectrum,"

connecting what Nattiez terms the esthetic with the neutral, where issues of perception and reception are balanced against a set of “universal truths” about music.^[26] Clearly, this shift towards an external poietics in Reich’s music is partly due to newfound institutional access to the composer’s sketches and other materials. This article will now explore to what extent previously published analyses can nevertheless form part of a poietic framework inhabited by the sketches themselves, with reference to two works by Reich: *New York Counterpoint* and *Proverb*.

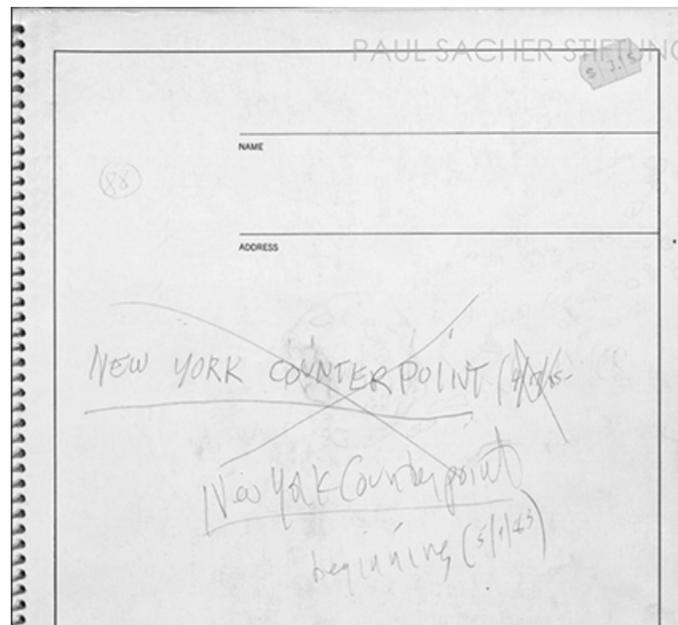
CASE STUDY 1. *NEW YORK COUNTERPOINT*: MAXIMUM CONNECTIONS

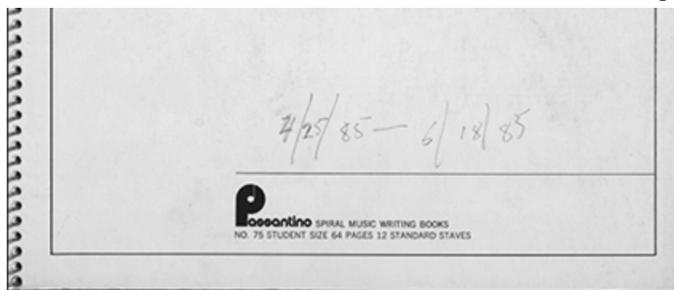
Composed in 1985 and premiered early in 1986, *New York Counterpoint* marked the second work of the first musical series that Reich produced since his *Phase* pieces of the late-1960s. Scored for solo clarinetist and a tape part constructed from pre-recordings made by the soloist, *New York Counterpoint* expanded upon a technique developed in *Vermont Counterpoint* (1982), whereupon solo instrumentalists are reimagined into a whole ensemble. As was the case in *Vermont Counterpoint* and the early *Phase* pieces, *Piano Phase* (1966) and *Violin Phase* (1967), *New York Counterpoint* exploits a minimum of means – one timbral family and short recurring melodic fragments – for maximum effect. Written just prior to Reich’s adoption of music notation software (MNS), the PSS holdings relating to *New York Counterpoint* comprise extensive entries in two sketchbooks (books #34 and #35) and two folders that hold loose manuscript pages and early corrected scores. The sketches for the first movement of *New York Counterpoint* are featured entirely in sketchbook 34.

A formalist analysis of *New York Counterpoint* is found in John Roeder’s exploration of beat-class modulation in selected movements from it, *Six Pianos* (1973), and *The Four Sections* (1987).^[27] Roeder almost certainly did not have access to Reich’s working materials to aid his analysis and support his theories. He therefore turns his attention solely to the “center” of the composition, as outlined in Example 1, above. Methodologically, Roeder relies upon earlier analytical studies by Richard Cohn, Dan Warburton, and Roberto Antonio Saltini to direct his study.^[28] Although his analysis builds on beat-class set theories contained in the aforementioned studies, Roeder’s findings are arguably more nuanced, exploring pitch and rhythmic distinctions in combination with beat-classes. Throughout the article, Roeder’s analysis is guided by the question: “what design regulates or results from the specific ways that the patterns build up and vary their content and their time- and pitch-transpositional relations?”^[29] This is a question that can also be illuminated by looking further into sketch study. Based on the question of a governing design, Roeder claims that beat-class modulation “illustrates a process that is essential to the form of Reich’s music,” as it creates “large-scale contrast, progression, and return, analogous to processes of pitch-class tonality.”^[30] Being that one of the central aims of analysis is to uncover commonalities in a composer’s oeuvre, a study of beat-class modulation in many of Reich’s works could therefore reasonably be undertaken as an investigation.

As a means of corroborating these claims about beat-class modulation in Reich’s non-phase-shifting music, Roeder dissects the first melodic pattern heard in *New York Counterpoint*, occurring just prior to rehearsal number 8 in the first clarinet tape line. This melodic segment is labelled Q1 by Roeder and consists of beat-class set {0,4,5,7,9,11}. Roeder identifies further renditions of this short melody (a total of six versions in the first movement) as transformations of the initial pattern, with Q2 = $t_5(Q1)$, Q3 = $t_8(Q1)$, while Q4–6 are simple pitch transpositions of the previous three patterns and form identical beat-classes to Q1–3. Moving beyond Cohn’s beat-class reading, Roeder considers the Q patterns’ modality and the articulation of underlying shifting pulse streams, and points to a correspondence that is much deeper than the surface similarities of beat-class might suggest. For some scholars, untangling such contrapuntal intricacies using a quasi-mathematical apparatus may appear no more than an academic exercise with little or no bearing on how Reich himself may have conceived the music.

To have a sense of how Reich initially imagined this work, we must now turn to the sketches and sketchbook 34 in particular, which sees him entirely consumed with *New York Counterpoint* – the cover annotations note as much (see Example 2).





Example 2: Steve Reich's sketchbook 34, cover. Steve Reich Collection, PSS

With three different dates listed for the beginning of the work and only one crossed out, the cover commentary shown in Example 2 also suggests discrepancies as to the composition's actual start date. These dates – 17 April 1985, 25 April 1985, and 1 May 1985, and their associated sketches – are important, since the indecision concerning the three "beginnings" suggests that Reich retrospectively reviewed the significance of sketch materials in the light of the composition's final outcome. Ostensibly, the date 25 April 1985 has no associated sketch material and is listed at the bottom of the cover as part of the sketchbook's date range, which gives the end date of the book as the day after the last dated entry. April seventeenth is the crossed-out date that appears centrally on the cover. It is also the date of the entry that appears atop the 21 April 1985 note written by Reich expressing his desire to develop a single pattern for the whole work.

One has to wait until 2 May 1985 – the day *after* the final date on the cover – before the sketched patterns resemble the same beat-class set as the one listed by Roeder as Q1. While the melodic contour is different from Q1, it is nevertheless recognizable as Roeder's {0,4,5,7,9,11}. Next to this pattern, Reich draws a large arrow accompanied by "GOOD START!" which, when combined with further development of the same rhythmic material sketched on the following page (dated 6 May 1985), points to 1 May 1985 as arguably the moment when Reich began work on *New York Counterpoint* in earnest. Reich's sketches then appear to demonstrate a preoccupation with this pattern – which, as Roeder demonstrates, has intrinsic complexities that are subsequently exploited through transformations, transpositions, and what he terms "build ups" (what K. Robert Schwarz previously called "rhythmic construction").^[31] A "circular" understanding of the beat-class pattern (an appropriate analogy is the pitch-class clock diagram) is expressed by Reich in the sketches, with each of the first three transpositions Q1, Q2, and Q3 given a circled number (1 for Roeder's Q1, etc.) and an arrow noting the various entrances on the initial pattern, rather than a rewriting of each pattern.

While Roeder's analysis describes and discusses the content of Q1, it cannot identify the characteristics of the patterns that Reich tried and subsequently abandoned in favor of the final Q1 (see the rhythmic portion of Example 3). In fact, the beat-class set {0,4,5,7,9,11} appears on 21 April 1985 only for Reich to momentarily set it aside in favor of {0,2,4,5,7,9,11} and {0,4,5,7,9,10} (see Example 3a, which sets out a series of rhythmic reductions, and Example 3b, which shows the patterns themselves).

a. Rhythmic reductions

Date of Sketch	Articulated Beats											
	0	1	2	3	4	5	6	7	8	9	T	E
17 April	•	•		•	•		•		•	•		•
21 April	•				•	•		•		•		•
28 April	•		•		•	•		•		•		•
2 May	•				•	•		•		•	•	
Published	•				•	•		•		•	•	

- Indicates start of a sounded note in the rhythmic pattern

	0	1	2	3	4	5	6	7	8	9	T	E
17 April												
21 April												
28 April												
2 May												

bass C1.s enter

- 4) Pattern switches to 2 Bars length immediately
after Bass Cl. enter

Directly following these directions to himself, Reich sketches three distinct bars of musical patterns in the bass clef as viable options, before continuing his extensive written commentary on the same page. In reference to the last bar of music, he writes a brief comment to "match below + above." However, in reference to the first pattern, Reich writes across the bottom of the page:

or
alternates
re - notes
chords
formulating
stack fifths
into clear harmonies

Achtung →

Go back to
held notes
expand to 2 bars
or more of held +
show!

What is evident from these marginal notes is that Reich was certainly engaged in pre-compositional decisions about *New York Counterpoint* prior to the date that he gave on the cover of the sketchbook, and that the decisions that he was making had to do with patterns. Furthermore, these patterns were conceived at times in terms of tonality, as seen in the entries on pages three and four, and at others in terms of tempo, as in the entry on page five, but the comments almost invariably center on the construction of the correct melodic plan. Another instance of such conscious continuation of the established model can be found in the entry dated 24 April 1985 where Reich utilizes a numbering "stop" system (present in the sketches at least as early as 1982) to work out how the rhythmic construction of the first movement will be unveiled to the audience. The encoding of this sort of material is again located in sketchbook 34, in an entry dated 7 May 1985.

A second effort is found on page eighteen (the first is found on pages eight through twelve) in an entry dated 9 May 1985; and, unlike the first attempt at sketching a draft score for *New York Counterpoint*, Reich strikes through this sketch. Both attempts focus their attention on melodic development through rhythmic construction – similar to how Reich begins *Vermont Counterpoint* – which is very different from the pulsing chordal waves that characterize the published version of *New York Counterpoint*. The explicit idea for the pulses found in *New York* first appears in an undated entry on page twenty-four of sketchbook 34, becoming formalized by a comment on the facing page that states: "Do entire pulse: then add other rhythms," referring to a dotted quarter-note in parentheses, before going on to note that the entries of the pulses would be staggered. Reich's determining of pitches for – and length of – the pulsing sections that start off *New York Counterpoint* consume the rest of the page. Testing these pulses immediately, the following ten pages map out the ebbs and crests of the pulsing chords.

Read in the light of Reich's sketches, Roeder's analysis of *New York Counterpoint* at first glance appears to place too much emphasis on an element (beat-classes) of the work that was not deemed central to its conception. Or rather, put another way, Reich's sketches reveal a series of "false starts" in the evolutionary process. While Roeder's analysis certainly comes to terms with the melodic material of the first movement, it doesn't address the pulsing opening (or partial return in the tape part), or how these relate to the Q1 melody. The pulses aurally link the opening of *Music for 18 Musicians* (1976) with *New York Counterpoint* while also recalling the importance of the clarinet's role in the earlier work. In this instance, sketch study foregrounds the centrality of both melodic pattern and pulses, and asks how they contribute to the finished product.

CASE STUDY 2. ANALYSIS AND SKETCH STUDY IN *PROVERB*

Proverb further explores relationships between the poetic and esthetic dimensions through sketch study and analysis. Composed in 1995 for three solo lyric soprano singers, two solo tenors, two vibraphones, and two keyboards (to which a Baroque organ-style sample is assigned throughout), *Proverb* occupies a somewhat unique place in Reich's oeuvre. Viewed in relation to its immediate predecessor, *City Life* (1995), for large ensemble, which creates an often loud and chaotic sonic urban soundscape, or the large-scale multimedia opera *Three Tales* (2002) that followed, with its cautionary narrative about scientific and technocratic pseudo-progress, *Proverb* stands alone. Its spare lines, neo-medieval sound-world, ascetic approach, and rarefied atmosphere beckon the listener to retreat into a spiritual domain, sealed off from the dystopian world of postmodern society. No wonder novelist Richard Powers made several references to *Proverb* in *Orfeo* (2014), where it functions as an antidote to an unhinged Kafkaesque world of computer hacking, digital codebreaking, and cyberterrorism – a world in danger of losing touch with its spiritual self.^[35]

Even measured according to Reich's own productivity rate – slow in comparison with the turnover of composers with which he is sometimes associated, such as Philip Glass and John Adams – *Proverb* appears to have presented a more-than-usual set of challenges. As indicated in Reich's note about the work, it was first performed as a "partial work in progress" at the BBC Proms Festival on 7 September 1995, and was only finally completed in December 1995.^[36] Evidence of this may be found in the existence of several "work in progress" drafts kept at the Paul Sacher Foundation (PSS) in the form of computer printouts of the score, in addition to the aforementioned Proms version, which consists of the first section of the work.^[37]

Since the first sketches for *Proverb* were made in February 1995, it took Reich – inter alia – around ten months to complete this fifteen-minute work; thus the formation and completion of the work most likely took him longer than anticipated.^[38] Whatever the case, the investment in terms of time and energy seemed to have paid dividends. Writing in the *Guardian* after the Proms performance, Andrew Clements described the sound of the work as "crystalline and wonderfully lucid ... *Proverb* reminds us how acute and exceptional [Reich's] ear really is."^[39] The work was later

subject to a detailed analysis by Ronald Woodley in a themed journal publication edited by Kateljijne Schiltz and Bonnie Blackburn that focused on canons and canonic techniques from the fourteenth and sixteenth centuries.^[40] While Reich's output clearly lay outside this designated period, Woodley's decision to focus on *Proverb* – with its overt allusion to Pérotin in particular and early music in general – made it an especially relevant choice.^[41] It was also at the time of publication one of very few analyses of compositions by Reich to focus on compositions written after 1990.^[42]

Woodley did not have access to Reich's sketches while undertaking his analysis of *Proverb*. However, he does draw on several accounts of the work, most notably by the composer himself in the form of program notes and in various published interviews.^[43] The aim of this case study is to measure Woodley's analysis against information revealed in the source material and in light of observations relating to what he terms Reich's "compositional intuition." Reich's intuitive approach, Woodley claims, is demonstrated in the composer's "more than usually subconscious" approach to "extended contrapuntal shaping."^[44] Elizabeth Eva Leach relates this issue more specifically to Reich's understanding of Pérotin, which she points out is identified by Woodley as a homage that is "more intuitive than scholarly."^[45] Such remarks relate to Clements' aforementioned comment about Reich's instinctive musicality, as revealed in his "acute and exceptional" ear. Implied in these comments is the notion that Reich's musical intuition compensates for any need for the composer to engage in any thoroughgoing scholarly study of Pérotin in particular, or medieval theory and counterpoint in general. The impression one gains from such phrases is that Reich had absorbed these influences as if by osmosis, through an innate, intuitive *musicality*. However, to what extent can Reich's understanding of the vertical and the horizontal in his music be informed by an innate understanding of contrapuntal motion and harmonic function? What role does musicality *really* play in this relationship, and how can a more detailed study of Reich's sketches answer some of these questions?

The sketches at PSS certainly serve to corroborate existing "poietic" (i.e. composer-based) information about *Proverb*. Reich himself previously stated that he had tried out several other proverb-like expressions before finally settling on Wittgenstein's phrase, taken from *Culture and Value*, which forms the work's centerpiece.^[46] The composer outlines this approach in an interview with Rebecca Kim in 2000:

I wanted something really short and aphoristic. I started looking through the book of Proverbs, but I couldn't find *exactly* what I wanted. Then I got a book of world proverbs, but found so many different things that I didn't know what to do with them. At the time, I happened to be rereading *Culture and Value*, a collection of Wittgenstein's writings, and when I came upon one sentence—"How small a thought it takes to fill a whole life"—I thought to myself [slapping his hands together], "That's it!"^[47]

The sketches support these stages outlined in Reich's summary, where (as shown in Example 1, above) he initially circles around a broad area (in this case, the Hebrew Bible and a book containing proverbs collected from around the world), before homing in on the most appropriate idea for his needs. However, the process of selection revealed in the sketchbooks strongly suggests even at this pre-compositional stage that the choice of text is often dictated by musical considerations. Reich's sketches between February–May 1995 reveal the composer trying out various textual phrases. These include, in February 1995, attempts at the line "covetousness is never satisfied until its mouth is filled with earth" – in a sketch that relates to *Proverb* in concept though not in musical material. This is then followed on 5 April 1995 with an attempt at "Know what is above you, an eye that sees, an ear that hears, and all your deeds written in a book."^[48] Again, there is nothing in the musical material that can be related directly to the melodic content of *Proverb*, other than the process of gradually revealing the written phrase's meaning through contraction and repetition: "Know what is / Know what is above you / an eye that sees / an ear that hears."^[49]

5/24/95

ne - ces - si - ty is the moth-er of in - ven - tion ne -

Example 4: Reich's sketch of "necessity is the mother of invention" (24 May 1995)

Further sketches appear between 22 and 24 May 1995, showing the composer edging closer to the final result, this time trying out various settings of the Latin phrase *Mater artium necessitas* in English: "necessity is the mother of invention." As shown in Example 4, Reich had not yet struck upon the arresting phrase first stated by the first soprano at the beginning of the work. However, its use of long-short (i.e. quarter-eighth note) rhythms suggests that by this point Reich's renewed acquaintance and reengagement with Pérotin's music was already feeding into the new work. As Reich states:

Proverb is an homage to Pérotin and it's the first time where I really do a piece about another composer ... [this] time I actually had *Viderunt Omnes* at the piano, and wrote everything out on one staff—there is a very nice Kalmus edition that Ethel Thurston did several years ago.^[50]

2

Example 5: A short passage from Pérotin's *Viderunt Omnes*

The melody in Example 4 shares the same transposed Ionian mode as *Viderunt Omnes*, with Reich's setting drawing more-or-less freely from the same set of pitches and patterns as Pérotin. For example, a phrase taken from the duplum voice in *Viderunt Omnes* (rehearsal number 2 in Thurston's edition; see Example 5)^[51] bears some relationship to Reich's melody: its pitch range, long-short rhythms, and even melodic contour (as shown in Example

4), although the resemblance is most likely coincidental. That Reich eventually discarded both the text and melodic phrase suggests that both were too “generic” for his liking: he hadn’t yet found *exactly* what he wanted, to return again to the composer’s words from his interview with Kim.

6/4/95

How small a thought it takes to fill a whole life How small a thought how

Example 6: The first sketch of the opening phrase from *Proverb* (4 June 1995)

Soprano 1

How small a thought it takes to fill a whole life!

Example 7: The opening phrase from *Proverb* as seen in the final version of the score

It isn’t until 4 June 1995, some twelve weeks prior to the Proms performance, that we see the first appearance of the opening theme, as shown in Example 6. While clearly signaling an important moment in *Proverb*’s gestation, the theme nevertheless departs in several significant ways from the version that eventually appears in the solo soprano at the beginning of the work (see Example 7). The first occurrence of the “A” pitch (the third note in the melody) is natural rather than the more striking and assertive *As*, an issue rectified by Reich in a revised version of the melody written the following day. Secondly, as shown in Example 6, Reich also provides a harmonization of the melody, mainly in two but sometimes in three “voices,” with certain pitches placed in brackets.

6/5/95

How small a thought it takes to fill a whole life

Example 8: A further sketch of the opening phrase from *Proverb* (5 June 1995)

He adopts this approach throughout the *Proverb* sketches, often adding written comments next to certain harmonizations (such as “lower voice does not sound so great,” written underneath the 4 June sketch a couple of days later). Furthermore, the rhythmic character of the phrase appears in a more simplified version, although a version written out on 5 June starts to incorporate the characteristic alternating 5/8 and 7/8 meters of the final version (see Example 8), with rhythmic groupings placed above each melodic line. Above the 6 June sketch, Reich adds a comment that summarizes his thoughts regarding the general direction of the work: “for tomorrow: start AUGMENTATION!” followed by “and the other voices begin melismas arriving at a kind of organum.”

9/18/95

How small a thought it takes to fill a whole life how small a thought it takes

Example 9: Reich’s sketch for the end melody from *Proverb* (18 September 1995)

It is not until 18 September 1995, ten days *after* the “work-in-progress” Proms performance, that the end melody – which reconfigures the two-note pairings of the opening melody in a kind of quasi-retrograde – makes its first appearance (see Example 9). Again, Reich provides a two-part harmonization in half-notes, while also underlining those words that fall at the beginning of each bar in a pattern that subtly reverses the textual emphasis.^[52] This flexible approach to the material – adjusting the rules as and when necessary to ensure the most desirable *musical* result – is demonstrated further in a sketch entry dated 3 October 1995 (Reich’s fifty-ninth birthday, as noted in the sketch), where an inversion of the opening theme, first heard in the middle section of the work, at measure 198, is set out for the first time (see Example 10), this time as a sequence of unstemmed pitches.

[Melody]

How small a thought it takes to fill a whole life

Vibes

Organ

Baritone

a thought it takes to fill a whole life!

or 16 or or or or

Example 10: Reich's sketch of the melody as heard in the middle section of *Proverb*

Rather than adhering strictly to the inversion principle, Reich adjusts the fifth pitch from A natural to an A_b , with the comment: "Inversion of original leads to E_b minor." Underneath this quasi-inversion yet further harmonisations are included, with chords set out in the vibraphone line that makes use of a kind of tonic pedal on E_b hanging over a set of predominantly quartal or triadic patterns. Harmonies in the organ line essentially conflate information contained in the upper two lines, while a bass line at times follows the main melody in thirds (although, curiously, completely avoids placing any emphasis on the tonic E_b).^[53]

Even though Woodley had no recourse to the sketch material pertaining to *Proverb*, his discussion of the compositional process that led Reich to the inverted version of the opening melody closely parallels the information found in the composer's sketchbook. In sketching out the melodic inversion, Reich immediately grasped the tonal efficacy engendered by the shift from the B minor tonality of the opening to E_b minor in the middle section, and adjusted the melody accordingly. This use of a quasi-inversion is described by Woodley as Reich's "non-compliance" with regard to observing a strict "process of thematic inversion."^[54] He continues:

[The] inversion is calculatedly inexact: whilst the intervallic structure is broadly retained, the "ordinary language" of E flat minor ... is deemed to take priority over the precise intervallic inversions (a more "private" language?) than an a priori system might otherwise try to dictate.^[55]

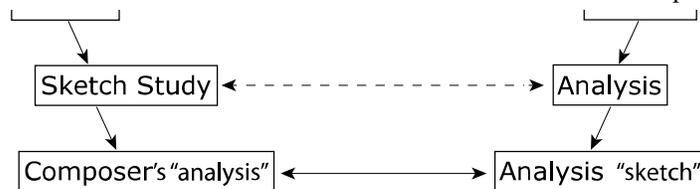
Inevitably, these sketches provide a more detailed view of Reich's creative process. As shown in the harmonic workings-out that appear underneath the melody in Example 10, Reich's "compositional intuition," a term Woodley borrows from K. Robert Schwarz,^[56] may not be as instinctive as initially assumed. The inclusion of harmony as an indivisible consequence of melody – flip sides of the same coin, as it were – suggest that the melodic element is as much driven by harmony in Reich's music as the other way around.^[57] Very little is left by Reich to chance, or indeed to intuition.

PAUL SACHER STIFTUNG

Alto
Soprano
Tenor
Organ
Vibraphone

And sweet a thought it takes to fill a whole life!

Handwritten notes: "Hessmann 2, 5756", "10/26/95", "Marta (no) from next's Sulfur Dues", "Piano Part", "1/15/95", "Tara", "10/26/95".



Example 13: Figure illustrating connections between analysis and sketch study

The quasi-analytical annotated ruminations found in Reich's sketchbooks that serve to generate more concrete and substantive musical ideas, bring poetic and esthetic, sketch study and analysis closer. As shown in Example 13, sketches often reveal a composer's own attempts at unpacking the analytical implications and ramifications of a musical idea. At the same time, while analysis cannot provide "the final word" it can still function as an esthetic "sketch" – suggesting possible pathways into further perceptions and understandings of a musical work. Any analysis, however rigorous its methods and process, ultimately can only afford a partial glimpse: it is no more than a sketch – or reflection – of a work. In setting out these distinctions, it is hoped that this article has provided a basis for a discipline that, as Kerman suggested over fifty years ago, will enable tomorrow's musicologists to categorize and synthesize sketch study and analysis in a way that will ultimately bring them closer to the music itself.

Notes

- 1 Foucault 2005, XXI.
- 2 The two authors wish to thank Matthew Franke, the two external readers (whose reports were very helpful in preparing the final version of this article), and Matthias Kassel at the Paul Sacher Stiftung (PSS). Pwyll ap Siôn wishes to thank the Leverhulme Trust for the award of a Research Fellowship in 2016, which enabled him to carry out research at the Paul Sacher Stiftung. Twila Bakker's research was funded by a Bangor University's 125 Anniversary Scholarships. All sketch reproductions and text annotations taken from PSS, Steve Reich Collection, have been included with kind permission. Example 7, *Proverb* mm. 1–8 (Soprano 1 line only) © Copyright 1995 by Hendon Music, Inc., a Boosey & Hawkes company.
- 3 Kinderman 2009, 7.
- 4 According to extant documents at the PSS, *The Four Sections* (1987) and *Electric Counterpoint* (1987) were the first works Reich used the music notation software (MNS) Professional Composer by Mark of the Unicorn to compose. Reich switched from Professional Composer to MakeMusic's Finale during the composition of *The Cave* (1990–1993). A few other large works were composed with Finale before the composition of *Proverb*, although none of them included voices.
- 5 For more on the tri-partitional model, see Nattiez 1990, 10–16.
- 6 For more on postminimalism in terms of a "freeing up" of the minimalist aesthetic, see Bernard 2003.
- 7 Sallis 2015, 161.
- 8 *Ibid.*, 165.
- 9 Taruskin 2004, 10.
- 10 Kerman 1982, 179.
- 11 Kerman's view may not appear entirely surprising given his, at times, skeptical view about music analysis, most famously enshrined in his article "How We Got into Analysis, and How to Get Out" (Kerman 1980).
- 12 McClary 1993, 413, emphasis added.
- 13 Kerman 1965, 67.
- 14 For a helpful definition of new musicology, see Beard and Gloag 2005, 122–124.
- 15 An interesting avenue of research would be to compare the content of Reich's materials from before and after he signed the contract with the PSS to determine whether his approach to preserving his personal sketch materials shifted at that point. However, this is not within the scope of this article as both *New York Counterpoint* and *Proverb* fall within the time-frame before the PSS assumed stewardship of the Reich collection. Curated by Matthias Kassel, the Paul Sacher Stiftung (PSS) acquired the Steve Reich Collection in 2008, with materials added on a regular basis since that time. (See Paul Sacher Stiftung 2009 for further details.)
- 16 Quinn 2006, 284.
- 17 Beginning with the writings of K. Robert Schwarz (1981 and 1982) and Paul Epstein (1986), Dan Warburton (1988) added further weight to the argument that minimalist music merited scholarly study (1988). Dissertations submitted on the subject of minimalist music during the 1990s included those by Suzuki 1991, Fink 1994, and Pellegrino 1999. More recent theses and articles analyzing minimalist music in general or Reich's in particular include Garton 2004, Gopinath 2005, Atkinson 2009, Evans 2010, Lee 2010, and Evans 2013.
- 18 Reich 2002, 35.
- 19 Haack 1991; Haack 1998.
- 20 Quinn 1997.
- 21 Colannino, Gómez, and Toussaint 2009.
- 22 O'Brien 2014.
- 23 Klein 2018, 234.
- 24 Harternberger 2016.

- 25 Potter 2017 and Zimmerman 2017. The soon-to-be published *Rethinking Reich* (Gopinath and ap Siôn, 2019) includes several chapters by authors who, in various ways, draw on sketch materials housed at PSS.
- 26 Nattiez demarks the “neutral” level as a means of disclosing “universal truths” about the musical work.
- 27 Roeder 2003.
- 28 Cohn 1992, Warburton 1988, and Saltini 1993.
- 29 Roeder 2003, 280.
- 30 Ibid., 290.
- 31 Schwarz 1990, 251.
- 32 The musical material found in Example 3b is representative of the melodic content of the dated sketch. There are multiple patterns sketched on each day. These selections, however, were indicated by Reich as being of importance in the following ways: the material labelled here as 17 April 1985 in Reich’s sketchbook is marked by an arrow and the text “B-flat”; furthermore Reich indicates the A-sharp and F-sharp in beats 6 and 8 respectively as entry points for an off-set pattern. On 21 April 1985 this pattern is followed by an indication of a pattern with an alternative key signature; this alternative key signature became the published one. On 28 April 1985 this pattern appears in two forms in the sketch from this date, the first time it appears as shown here, with further entries at beats 5 and 9 suggested; the second iteration follows a measure of music which begins with a tied quarter-eighth pattern related to Roeder’s Q1. This measure, however, has no extra indications from Reich, whereas the following measure, which is the pattern of 28 April 1985 as transcribed here, is again indicated with an arrow (the accompanying bass material is also marked a beat 0 with the accompanying text “Begin”). Finally the material from 2 May 1985 is accompanied with a large arrow and the exclamation “GOOD START!”
- 33 Unless otherwise indicated, all sketch materials referenced here are drawn from the Steve Reich Collection, Paul Sacher Stiftung, Basel. In accordance with the Sacher’s numbering system, the sketchbooks with materials relating to the genesis of *New York Counterpoint* in 1985 are found in books 34 (5 February–10 June) and 35 (18 June–5 August).
- 34 Roeder 2003, 294.
- 35 *Proverb* has also attracted interest from electronic dance music artists. In 1999, a remix of *Proverb* by Japanese DJ artist and composer Nobuzaku Takemura was included on the *Reich Remixed* album (Nonesuch 79552-2), and was subsequently included on a television commercial by the Rover car manufacturing company.
- 36 Reich 2002, 193. The first complete performance took place in New York on 10 February 1996, with the Theatre of Voices under the direction of Paul Hillier. The first recording of the work, issued later the same year alongside *City Life*, also featured the same ensemble (Nonesuch 79430-2).
- 37 Up to bar 197. For a tabular analysis of the basic structure of *Proverb*, see Woodley 2007, 479. All the sketches relating to *Proverb* appear in sketchbook 45. It is worth remembering that some of Reich’s most important compositions – including *Drumming* and *Music for 18 Musicians* – received partial first performances before undergoing revisions and extensions.
- 38 While the work’s gestation was protracted, the most relevant sketches for the work were made in the two or so months leading up to the Proms premiere.
- 39 Clements 1995, 38. Not all reviews were as complementary. Writing in the *Times* about the same concert, a skeptical John Allison wrote: “we heard half of [*Proverb*’s] projected 15 minutes, but on the basis of this it is hard to see how a photocopier could not have completed the rest” (Allison 1995, 14).
- 40 Woodley 2007, 457–481.
- 41 Paradoxically, Pérotin’s own compositions, written around the end of the twelfth and early thirteenth centuries, predate the conference by some two hundred years.
- 42 In fact, Woodley’s article encompasses a broad range of works, including (in addition to *Proverb*) *Piano Phase* (1967), *Music for Mallet Instruments, Voices, and Organ* (1973), *Octet* (1979), and *Tehillim* (1981), partly in order to highlight the importance of canonic techniques across the composer’s oeuvre as a whole. Reich’s experimental and minimalist works from the 1960s and 1970s continue to receive more scholarly attention than his post-minimal output from the 1980s onwards, although research by Cumming and Wlodarski on *Different Trains*, and more recently Bakker, Casey, Ebright, and Jedlicka on the *Counterpoint* pieces, *The Cave*, *WTC 9/11*, and *Three Tales* respectively, have partly redressed the balance (see Jedlicka 2015 and Bakker, Casey, and Ebright in Gopinath and ap Siôn 2019).
- 43 See especially Reich’s note on *Proverb* in Reich 2002, 191–193. The first fruits of research into Reich’s music, which drew on materials housed at PSS, did not appear in print until 2010, starting with Wlodarski’s article on *Different Trains* (see Wlodarski 2010).
- 44 Woodley 2007, 465–468.
- 45 Leach 2008, 625.
- 46 Wittgenstein 1998.
- 47 Kim 2000.
- 48 Reich was to return to this text some four years later in a short work for four voices and percussion, *Know What Is Above You* (1999). The melodic sketch appears to be unrelated to the 1999 work.
- 49 In fact, Reich ended up taking the opposite approach in *Proverb*, grasping the inherent circularity of Wittgenstein’s phrase by stating it completely (“How small a thought it takes to fill a whole life!”), before then contracting it (“How small a thought / How small ...”). At the same time, Reich’s process of gradually augmenting the original phrase serves to magnify and intensify what has, in effect, already been stated.
- 50 Kim 2000, 357.
- 51 Thurston 1970.
- 52 The word emphasis in the opening phrase is as follows: “How small a thought it takes to fill a whole life!” Here, however the emphasis is shifted forward by each word: “How small a thought it takes to fill a whole life!”
- 53 Curiously, Reich names this part “Baritone” in the sketch, although the two male voices employed in *Proverb* are both tenors.
- 54 Woodley 2007, 475.

- 55 Ibid., 475–478.
- 56 Ibid., 465 n.22.
- 57 This is not surprising in itself, of course. While Reich's early phase pieces placed more emphasis on overt linear elements, by the time of *Music for 18 Musicians* (1976) – with its opening pulsing chords – harmony was taking precedence over melody. On a certain level, all Reich's compositions address this dichotomy in various ways. In *Proverb's* case, the question might be: is harmony supporting melody or *vice versa*? Which, in fact, is controlling which?
- 58 Ibid., 468.
- 59 Reich's prescriptive list is certainly nowhere as detailed as Woodley's tabular analysis of *Proverb*, which sets out the work in three main sections plus a coda: Section 1 comprising 6 "units" in the sequence Statement 1, 2, 3, Organum 1, Statement 4, Organum 2; Section 2 comprising 4 "units" in the sequence Statement 5 & 6 plus Organum 3 & 4; Section 3 comprising Statement 7 alongside "periodic interjections of 'organum,'" followed finally by a Coda, which reprises the opening theme in the melodic transformation seen in more simplified form in Example 8 (see Woodley 2007, 479).
- 60 For an in-depth account of this work see van der Linden 2010.
- 61 Quoted in Reich 2002, 9.

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