

## *Reich Remixed: Minimalism and DJ Culture*

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In 1999, Nonesuch Records released a CD containing selected works of minimalist composer Steve Reich (b. 1936) remixed by prominent electronica artists. *Reich Remixed* was billed as an homage to the father of DJ/remix culture and the liner notes cite Reich as ‘the original re-mixer,’ stating boldly that ‘mass culture has finally caught up to and embraced the fringe ideas that Reich was exploring in the 1960s.’<sup>1</sup> This is an association with which Reich is not uncomfortable. Commenting on the DJ-as-remixer, Reich has said that ‘here’s a generation that doesn’t just *like* what I do, they appropriate it!’<sup>2</sup> Contributing artists on *Reich Remixed*, including Coldcut, DJ Spooky, and Howie B (Howard Bernstein), were supplied with multi-track recordings of Reich’s works, allowing them to select, isolate, sample and manipulate individual instruments and parts to include in their remixes.<sup>3</sup> According to Reich, the remixers worked autonomously, and his own involvement in the project was limited to selecting from the more than twenty mixes that were submitted for the project.<sup>4</sup>

Minimalism is notable for its engagement with American popular music. It has been influenced by ‘the harmonic simplicity, steady pulse and rhythmic drive of jazz and rock-and-roll,’<sup>5</sup> and has been identified by several authors as antecedent to various genres of

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<sup>1</sup> Michael Gordon, *Reich Remixed*, liner notes, CD 79552, Nonesuch Records, 1998, 2.

<sup>2</sup> Christopher Abbot, ‘A Talk with Steve Reich,’ *Fanfare: The Magazine for Serious Record Collectors*, 25.5 (Mar.–Apr. 2002): 68.

<sup>3</sup> Howard Bernstein, interview with author, 22 April 2005.

<sup>4</sup> Abbot, ‘Talk with Steve Reich,’ 68.

<sup>5</sup> K. Robert Schwarz, *Minimalists* (London: Phaidon Press, 1996), 10.

electronica (used here to refer to a subset of electronic music that occurs within a broad popular culture context during the latter part of the twentieth century and beyond). McClary posits minimalism's use of repetition as a structural device as a fundamental underpinning of various genres within electronica, including hip hop and techno, and positions them in an historical survey of twentieth century music that includes Schoenberg, Stravinsky, Cage, Boulez, Stockhausen, Young, Riley, Oliveros, Glass, sampling technology, Ravi Shankar, and the Beatles.<sup>6</sup> Acknowledging that this represents a 'bewildering profusion of musical practices,'<sup>7</sup> McClary nevertheless articulates what has become a more widely held view in scholarly and critical literature.

Journalist, critic, and DJ Philip Sherburne, for example, suggests that the work of the minimalist composers, particularly Steve Reich, has been somehow absorbed into popular music 'like some microbotic virus ... especially prominent in the various form of electronic dance music—Techno, house and the "post-Techno" offshoots.'<sup>8</sup> Cox and Warner argue that Reich's work prefigures the 'layered, modular repetition' found in Techno and other forms of electronica through which minimalism has 'provided new resources for sound artists who are as likely to present their work in galleries as in clubs.'<sup>9</sup> Even *Grove Music Online*, few of whose authors have yet to incorporate electronica into their discussions, includes an assertion from Keith Potter that the minimalist composers 'have had an important effect on a wide range of concert musics, rock and the panoply of post-modernist, hybrid forms which became a major feature of late twentieth-century music.'<sup>10</sup>

What is being described as this panoply of post-modernist, hybrid forms is never clearly articulated. To even the most casual observer, however, minimalist tendencies, in the form of repetition, static harmony and additive processes, can be divined in a range of contemporary popular musics, from new wave and krautrock to hip hop and techno. Philip Sherburne suggests that:

The origins of most contemporary electronic dance music—found in Kraftwerk's 1974 opus 'Autobahn' and updated in the late 80s and early 90s with the streamlined electronic funk of Detroit Techno pioneers like Derrick May and Juan Atkins—emphasized a pared-down palette that cut away all the excesses of a bloating rock and pop tradition ... foreground[ing] the strategies pioneered in the work of so-called Minimalist composers like Steve Reich and Phillip Glass.<sup>11</sup>

Problematically, intermediaries such as Derrick May and Juan Atkins do not acknowledge a link to the experimental music tradition, often citing influences only one step up the chain. This poses the question whether these ideas are passed on via the multiple intermediary influences, who may have reinterpreted them in their own way, or are the result of a similar

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<sup>6</sup> Susan McClary, 'Rap, Minimalism, and Structures of Time in Late Twentieth-century Culture,' *Audio Culture: Readings in Modern Music*, ed. Christopher Cox and Daniel Warner (New York: Continuum, 2004), 289–98.

<sup>7</sup> McClary, 'Rap, Minimalism, and Structures of Time,' 296.

<sup>8</sup> Philip Sherburne, 'Digital Discipline: Minimalism in House and Techno,' *Audio Culture*, ed. Cox and Warner, 319.

<sup>9</sup> Cox and Warner, eds, *Audio Culture*, 288.

<sup>10</sup> Keith Potter, 'Minimalism,' *Grove Music Online*, accessed 1 Aug. 2005, <www.grovemusic.com>.

<sup>11</sup> Sherburne, 'Digital Discipline,' 320.

cultural/musical environment to that of minimalist composers. Are we to accept the assertion that Reich's music 'has filtered into the consciousness of our society, so much so that it has been copied and distilled into music now heard everywhere, much the same way the patterns on your bathroom wall have been lifted from a Van Gogh,'<sup>12</sup> or is it possible to identify a more direct line of influence from the 'father of DJ culture' to his children?

This article addresses this question by examining the remix of Reich's *Eight Lines* (1983) by Howie B, from the *Reich Remixed* album, as one example of the similarities, contrasts, confluences and lines of influence between the musical and aesthetic concerns of minimalism and electronica. *Eight Lines* was chosen due to Howie B's high profile as an artist (ensuring that a basic literature survey was possible), and Reich's own identification of the work as one of his favourite remixes from the album.<sup>13</sup> Reich singles out *Eight Lines* as being of particular interest, stating that 'I think Howie B's *Eight Lines* is a very sophisticated job.'<sup>14</sup> Reich's perception is that Howie B has engaged at a musical level with the source material in a way not present in the other remixes on the album. That Howie B has in some way 'understood' Reich's original piece suggests that, if there is a case to be made for clear and direct musical influence, it is to be found here.

Responding to the specifics of the work under discussion, this article utilises elements of traditional musical analysis, a discussion of the use of samples and the application of sonic effects to the remix, original interview data, and information gleaned from a literature survey of articles, reviews, and interviews with and about Howie B. I argue that, while Howie B and Reich's work may possess superficial similarities, in practice Howie B's compositional process and aesthetic and musical concerns do not bear out a demonstrable minimalist or 'Reichian' influence.

Howie B has worked as an audio engineer, producer, and composer, most notably within the UK electronic dance music scene of the late 1990s. He began his career as a tea-boy in a studio and has gone on to become a world-touring DJ, remixer and producer, working with U2, Sly and Robbie, Massive Attack and Björk. Howie B's early output, some of which is collected on the compilation *Best Foot Forward* (1995),<sup>15</sup> includes elements of dub, jazz, trip-hop and ambient house, all of which heavily inform the artist's debut album, *Music for Babies* (1996), and, to a lesser degree, his follow-up album, *Turn the Dark Off* (1997).<sup>16</sup>

While not atypical of Howie B's output, his *Eight Lines* remix is best understood as an exceptional encounter with the work of Steve Reich precipitated by Howie B's engagement with the *Reich Remixed* album. Prior to this album, there appears to be no implied musical relationship between Howie B and Steve Reich. Post-project, however, there are several allusions to a 'Reichian' / minimalist influence on Howie B's work, in particular on his third, somewhat more abstract, studio album, *Snatch* (1999), released in the same year.<sup>17</sup> In a 1999 interview, Howie B suggests that Reich 'might have had some influence on my music but I wouldn't

<sup>12</sup> Gordon, *Reich Remixed*, 2.

<sup>13</sup> Abbot, 'Talk with Steve Reich,' 68.

<sup>14</sup> Marc Weidenbaum, 'The Public Record [Interview with Steve Reich],' *Disquiet: Ambient/Electronica*, 1999, accessed 13 July 2012, <[www.disquiet.com/steverreich-script.html](http://www.disquiet.com/steverreich-script.html)>.

<sup>15</sup> *Best Foot Forward*, Pussyfoot Records, LP 001, 1995.

<sup>16</sup> Howie B, *Music for Babies*, Polydor, CD 529464-2, 1996; *Turn the Dark Off*, Polydor, CD 537934-2, 1997.

<sup>17</sup> Howie B, *Snatch*, Pussyfoot Records, CD LP 011, 1999.

say directly ... I listened to it and said "Wow I could have done that" ... that must have had some influence.<sup>18</sup> When interviewed for this research, Howie B was more enthusiastic in embracing Reich's influence:

I think he's a big influence, Steve in terms of ... I couldn't put a finger on what it is. Definitely the guy has, I don't know has had some influence on me and a lot of people I work with as well ... In terms of what he's actually done and how it's influenced me I don't know but yes I listen to his music quite a lot and it's added colour to my life which is great.<sup>19</sup>

Taken at face value, Howie B does seem to have been influenced by Reich's use of repetition and the composer's notion of 'a compositional process and a sounding music that are one and the same thing.'<sup>20</sup> Howie B articulates a position strikingly similar to that of both Reich and Cage, stating that:

It's the content, not the end product, not the end thing that's the most important thing. I mean; I guess it's absolute process. And that's what great about [this] music and puts it apart from anything else.<sup>21</sup>

When pressed, however, it becomes apparent that Howie B is actually referring to an intuitive composition process, aided by ensuring a 'good environment in the studio [created by] good food, great tea [probably a reference to marijuana] ... humour [and] good friends.' Howie B acknowledges that his creative process involves experimentation, 'but it's the result of the experiments people hear but they don't hear the experimentation.' Furthermore, and in stark contrast to Reich's own interest in audible processes, Howie B feels that the process of creation is something that should not necessarily be heard by the listener. Rather than setting in place a process that is laid bare in the music, Howie B works through an informal process of experimentation in the studio that is developed, refined, and may ultimately be obscured by the outcome.

When asked whether he had attempted to emulate elements of Reich's original piece, Howie B stated, 'Yes, I wouldn't say emulate, I would say, yes, because emulate is an interesting word. I would say handshake.' Even when pressed, Howie B would not clearly articulate any tangible similarities or differences between Reich's work and his own:

No, I don't, not very much; I don't see any similarity. I think maybe there's an attitude to space but ... nothing else ... I'd say the main difference would be [our] attitude to recording. But then again I don't know, I really don't know what the main differences are.<sup>22</sup>

It may be that Howie B is hesitant or genuinely unable to spell out the specifics of how and by whom he has been influenced. Perhaps he is simply not aware of Reich's music or ideas

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<sup>18</sup> Anil Prasad, 'Howie B on the Prowl [Interview with Howie B],' *Innerviews: Music Without Borders*, 1999, accessed 3 August 2005, <[www.innerviews.org/inner/howieb.html](http://www.innerviews.org/inner/howieb.html)>.

<sup>19</sup> Bernstein, interview.

<sup>20</sup> Steve Reich, 'Music as a Gradual Process,' *Writings About Music* (New York: New York University Press, 1968), 9–10.

<sup>21</sup> Bernstein, interview.

<sup>22</sup> Bernstein, interview.

to a degree that he can cogently reflect on them. Alternatively, as an untrained musician who speaks frequently about music as a 'vibe,' Howie B may simply be disinclined to expound on a compositional process that is, for him, highly intuitive. Most likely, however, is that Howie B resists verbalising his exact motivations and ways of working. Consequently, while there is some useful information to be gleaned from the composer's responses, I will rely heavily on my analysis of Howie B's *Eight Lines* remix to further elucidate its relationship to Reich's work.

Reich's *Eight Lines* (1983) is an updated version of the composer's earlier work *Octet* (1979), to which Reich added further instrumentation to make the piece easier to perform. Reich notes that a string quartet was added

because of problems in performing the piece with only one player to a part. For the two violins this problem was the difficulty of playing rather awkward double stops in tune. This was solved by having two first violins and two seconds so that each player could play one note at a time. For the viola and cello, a second player was added to each to allow the rapid eighth-note patterns to be broken up between the two players thus preventing fatigue.<sup>23</sup>

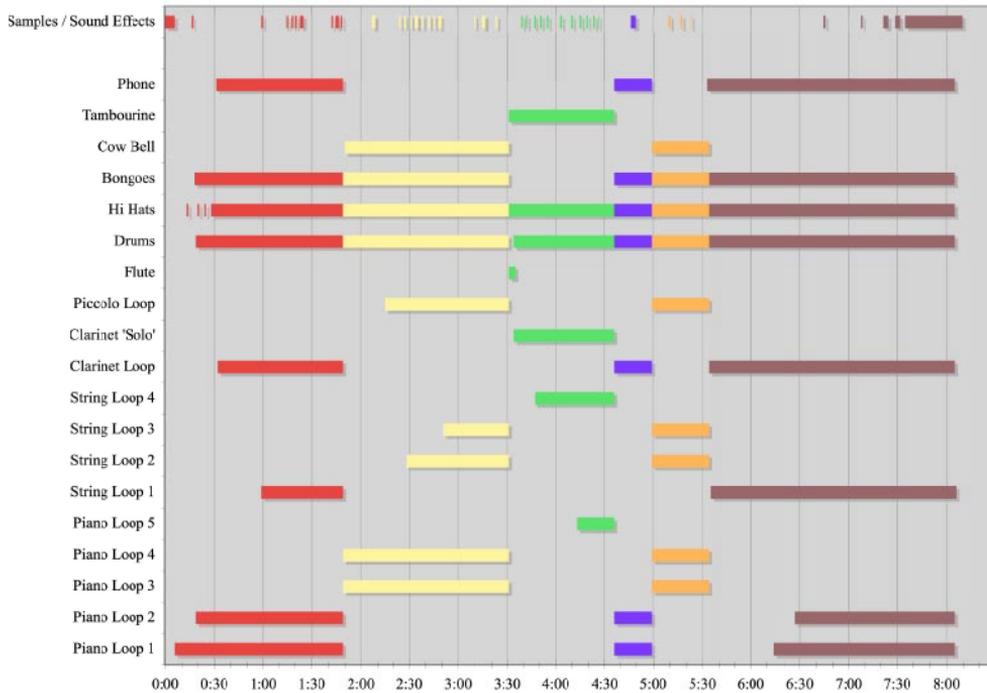
By contrast, Howie B's remix of *Eight Lines* is realised as a virtual construct of samples, loops and beats, the juxtaposition of which is not intended for live reproduction. This analysis of Howie B's remix will involve discussion of the 'traditional' elements of structure, rhythm, melody and harmony, alongside the role of timbre, the use of samples, and the application of sonic effects to the remix. Rather than a general exegesis of the remix, the purpose of this analysis is specifically to identify and highlight areas of similarity and difference between Reich and Howie B's work. Consequently, this analysis will focus on features of the remix where such discussion is relevant. Transcriptions and diagrammatic representations have been used where appropriate to illustrate and highlight various aspects of the remix. It is important to bear in mind that, as Howie B is not a trained musician, it is unlikely he would have been thinking about bars, beats, key signatures or scores; he would not have necessarily been thinking or working within the typography of western art music. Where possible, the diagrams attempt to demonstrate features of the piece in the manner in which Howie B is likely to have engaged with them, as loops and sequences, rather than bars and beats. Some diagrams, such as the form chart, have been modelled after the 'arrange' style windows found in most contemporary DAW (Digital Audio Workstation) and sequencer software programs.

Howie B's remix is organised into six sections, differentiated by the use of particular groups of samples and sonic treatments. Figure 1 demonstrates the overall structure of the piece and details the instrumentation present in each section. The form of the piece is best described as A, B, C, A1, B1, A2, with significant similarities existing between sections A, A1, and A2, as well as between sections B and B1. By contrast, Reich structured his piece in five sections, describing them as follows:

The first and third resemble each other in their fast moving piano, cello, viola and bass clarinet figures, while the second and fourth sections resemble each other in their longer held tones in the cello. The fifth and final section combines these materials.<sup>24</sup>

<sup>23</sup> Steve Reich, *Writings on Music, 1965–2000* (Oxford: OUP, 2002), 119.

<sup>24</sup> Steve Reich, *Eight Lines* (London: Boosey and Hawkes, 1989), i.

**Figure 1.** Plot of instrumentation against time of *Eight Lines* remix

Revealingly, Howie B claims to have not referenced his remix to Reich's piece, instead relying on his own intuitive grasp of form and musical development. According to Howie B, the structure of the remix 'was referenced to the lord above, not to Reich. It was mainly what sounded good to my ears.'<sup>25</sup>

Despite this assertion, it is notable that Howie B draws on source material primarily from Sections 1, 3, and 4 of Reich's score. Table 1 below identifies the samples from *Eight Lines* Howie B used with the sections of Reich's score they were taken from and the sections of the remix they were used in.

Samples taken from within a single section generally occur concurrently. In the case of repeating motifs that may have been sampled and looped from anywhere within a section (such as Piano Loop 1 and 2), I have referenced their first occurrence in Reich's score for convenience's sake. It would be reasonable to assert that Howie B has in fact taken significant cues from Reich's composition when constructing his remix. The juxtaposition of the sampled piano and string parts in Section A of the remix, for example, is immediately recognisable from the opening bars of Reich's piece. Though the structure of the remix does not directly reflect Reich's score, the content and context of the samples used adhere quite closely to their original construction. Obviously this is not entirely unexpected, however, as Howie B did undertake to *remix* Reich's piece and a residual similarity to the original would be unavoidable.

The sections of the remix bear no clear durational relationship to one another. This is in contrast to Reich's own careful, even meticulous, structuring of his own piece based on the

<sup>25</sup> Bernstein, interview.

careful juxtaposition of repeating melodic and rhythmic motives and gradual harmonic and rhythmic modulation. Instead, Howie B appears to rely on intuitive structures resulting in a piece that is evenly weighted either side of Section C. This section is, on the surface, the most dramatically unlike Reich's original. It contains the least amount of Reich's source material, draws on two sections of Reich's score for its samples (though only two notes are sampled from Section 5 of the original), and does not make use of strict repetition in the same way as the other sections of the remix. Although featuring recurring melodic material, the clarinet solo, discussed below, does not repeat in the strict manner found in the remix's other sections. Similarly, neither the flute nor tambourine feature the repetition of small motifs found elsewhere in the remix. Additionally, section C downplays the role of the piano, the 'rhythmic backbone' of Reich's piece,<sup>26</sup> which is used prominently in the remix's other sections. Given its privileged position in the centre of the piece, it is plausible to suggest that Section C is the focal point of the remix and where Howie B most clearly asserts his creative voice over Reich's.

It could be argued the remix follows a modified rondo form (ABCABA rather than ABACABA), but this would be a mistake, as it does not follow traditional notions of exposition, development and recapitulation. Howie B revealed that, when composing the piece, he worked on each section independently of the others, building up layers of sounds: 'What I did was, I chose different sections, and I gave each section a different name, and then I just went about filling up; making each section, for me, listenable to in a new way.'<sup>27</sup>

Where Reich utilises overlapping voices and melodic lines to obscure some section changes within his composition, the transition between sections of the remix are sonically distinct.

**Table 1.** Samples and their location in the remix

Section	Remix A	Remix B	Remix C	Remix A1	Remix B1	Remix A2
1	Piano Loop 1 Piano Loop 2 String Loop 1 Clarinet Loop			Piano Loop 1 Piano Loop 2 String Loop 1 Clarinet Loop		Piano Loop 1 Piano Loop 2 String Loop 1 Clarinet Loop
2						
3		Piano Loop 3 Piano Loop 4 String Loop 2 String Loop 3 Piccolo Loop			Piano Loop 3 Piano Loop 4 String Loop 2 String Loop 3 Piccolo Loop	
4			Piano Loop 5 String Loop 4 Flute Clarinet Solo Fragment 1			
5			Clarinet Solo Fragment 2			

<sup>26</sup> K. R. Schwarz, 'Steve Reich: Music as a Gradual Process—Part II,' *Perspectives of New Music* 20.1/2 (1981): 252.

<sup>27</sup> Bernstein, interview.

Howie B achieves this through the use of different groups of samples, different tonal centres, and different timbres produced by electronic treatments of the sound sources. That said, the individual sections of the remix are largely static due to Howie B's limited use of harmonic and melodic material as well as his use of looped sections of audio. This does not mean that the piece does not 'develop' over time, but that the developments that do occur primarily constitute additions and subtractions of parts, changes in timbre and rhythm, and the interplay of the different audio loops used in the piece.

This is directly in keeping with the minimalist tradition's approaches to form and musical development and, in fact, with Reich's own compositional approach. The use of repetition, static harmony, and vertical movement through the addition and subtraction of instruments inducing overall timbral shifts are all compositional techniques found in Reich's *Eight Lines*. Further, the construction of the piece through the addition and subtraction of looped materials serves to engender a sense of the sounding-processes referred to by Reich in *Music as a Gradual Process*.<sup>28</sup> Though not equivalent to the gradual audible changes present in Reich's original, the simple additive and subtractive processes by which Howie B's remix of *Eight Lines* progresses should be clearly audible to all but the most casual listener. These similarities, however, could also be attributed to stylistic traits within electronic dance music and the application of music technology at large. The use of sampling and sequencing technologies encourages a compositional process where audio loops are layered on top of one another and changes are brought about by the addition and subtraction of material. Given Howie B rejects the notion that the structure of his remix referenced Reich's original, and that, as discussed above, his compositional process is highly intuitive, the latter seems more likely in this instance.

Reich's original work was scored for two pianos, a string quartet, clarinets, bass clarinets, flutes, and piccolo orchestrated in such a way that no more than eight instruments were performing concurrently (hence the title *Eight Lines*). Of these instruments, Howie B retains only the pianos, clarinets, a single flute, piccolo and violins. The piano is an obvious inclusion, as it functions as the leading voice in Reich's score, but there seems to be no systematic approach to Howie B's choice of instrumentation. 'I just chose what I liked,' Howie B states, 'it was just pure taste ... there was no objectivity at all.'<sup>29</sup> The small repertoire of samples also relates to technical difficulties in obtaining the sort of metronomic pulse present in much minimalist and electronic music: 'As what happens with classical music—there was no strict timing ... the tempo was I would say was not rock solid, so that ... made [the remix] more difficult.'<sup>30</sup>

In addition to the instrumentation taken from Reich's piece, Howie B adds several percussion parts and a series of samples taken from an unnamed Broadway musical, chosen for their 'kitsch' value. Disembodied snatches of conversation—'Hi'; 'Are you nuts?'; 'I'll never be jealous again'; 'Well'; '1, 2, 3, 4'; 'That's easier said than done'—are heavily processed, sometimes obscured, with echo washes and serve to create a soundscape or textural backdrop to the remix proper. When asked about the role of these sounds, specifically the use of vocal samples in the remix, Howie B noted that they were intended to evoke a particular sense of place:

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<sup>28</sup> K.R. Schwarz, "Steve Reich: Music as a Gradual Process – part II," *Perspectives of New Music* 20.1/2 (1981): 252.

<sup>29</sup> Bernstein, interview.

<sup>30</sup> Bernstein, interview.

They came from a New York musical which I thought was quite appropriate considering that it [*Eight Lines*] came from New York ... Reich, his whole thing is coming from New York. It sounds to me like the musicians he uses [and] the studios [and] all of that, so I just wanted to get my New York in there.<sup>31</sup>

The use of heavily treated samples is a feature of Howie B's creative output and, more broadly, aligns his work with Electronic Listening Music, (so called) Intelligent Dance Music, and ambient genres. Simon Reynolds notes, for example, that the use of sampling within these styles of electronic music 'was governed by an ethos of masking and warping sources, in explicit opposition to the recognizable quotes and lifts that characterized ardkore's [an earlier version of electronic dance music] cut-up approach.'<sup>32</sup> Along with the use of these samples, Howie B's use of programmed percussion provides a sense of cohesion between the different sections of the remix. According to Howie B, the percussion instruments are derived from electronic sources, either drum machines or synthesisers, and the remix was sequenced utilising a (somewhat antiquated) Atari 1040, most likely using the now defunct Intuitive Midi System software sequencer.<sup>33</sup>

It is notable that, while sampling quite creatively, Howie B does not contribute any significant melodic or harmonic material to the remix. Similar treatment of Reich's works is fairly consistent across the *Reich Remixed* album, where additions of sonic material not found in Reich's originals are generally percussive or non-instrumental samples. This runs against the grain of many DJ remixes, where a vocal or other recognisable element is taken and placed against a re-orchestrated backing track. It is unclear whether this attitude is a result of some undisclosed reverence for Reich, or has more to do with methods of composition common to the album's contributing artists being congruent with Reich's own. I believe the latter to be more likely—Reich's use of repetition as a structural device parallels the reliance on looped materials in electronic dance music and provides ready made 'loops' for the remixers. As with much electronic dance music, and unlike many popular songs used for remixes, there is often no leading melodic voice in Reich's compositions, and this appears to have influenced an approach to the material in line with the norms of electronica.

Howie B's remix of *Eight Lines* presents a significant reduction of Reich's use of harmony and melody. For the *Eight Lines* remix, Howie B sampled twenty-seven bars of Reich's eighty-seven page score. From this source material, Howie B created a number of short loops of audio that form the basis for his remix. Reich's score is constructed upon short repeating motifs and consequently some of these are sampled 'as written.' Piano Loop 1 (see Figure 2) is clearly identifiable from the opening bars of Reich's score. Though the loop actually begins on beat four of the bar, the down-beat is asserted strongly and is reinforced by the entry of the hi-hat on beat one at 0:13 and again at 0:16. This gives the strong impression of a two-beat anacrusis followed by the looped piano motif as it appears in the original score.<sup>34</sup>

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<sup>31</sup> Bernstein, interview.

<sup>32</sup> Simon Reynolds, *Energy Flash: A Journey through Rave Music and Dance Culture* (London: Picador, 1998), 157.

<sup>33</sup> Bernstein, interview.

<sup>34</sup> Reich, *Eight Lines*, b. 1.



The clarinet solo in Section C displays a more creative application of this same approach, whereby Howie B rearranges sampled fragments to create a new part. The clarinet 'solo' (Figure 7) comprises various permutations of three short samples taken from Reich's original. Each occurrence of these samples is highlighted, with red, blue and yellow being used to denote sample 1, 2 and 3 respectively. As can be seen, the solo is constructed from a two-bar repeating pattern that is varied by adding or removing one or two of the sampled phrases (and cutting short sample 2 at the last bar). Interestingly, the samples do not appear note for note in Reich's score and seem to be derived from phrases occurring in Figure 8 (highlighted in red) and Figure 9 (highlighted in blue and yellow) with slight manipulation of pitch and rhythmic placement. The clarinet solo is the most dramatic example of Howie B remaking an element of Reich's piece for the remix. Howie B strips these samples of their original context and manipulates the relationships between individual notes within a melodic phrase.

Furthermore, while each sample recurs in roughly the same order throughout the section, there is not the same use of regimented repetition found elsewhere in the remix. The process of joining together small fragments to build longer melodies is also observable in Reich's own work and this suggests at least a significant congruence between Reich and Howie B's compositional techniques at the point at which Howie B is most assertively original.

**Figure 7.** Clarinet solo as present in *Eight Lines* remix, beginning at 3:34, with sampled phrases highlighted

The image displays a musical score for a clarinet solo, consisting of ten staves of music. The key signature is three flats (B-flat, E-flat, A-flat) and the time signature is 5/4. The music is written in treble clef. The solo is constructed from a two-bar repeating pattern, with individual notes and phrases highlighted in red, blue, and yellow boxes to indicate sampled material. The first two bars of the solo are:
 

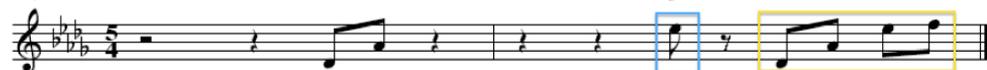
- Staff 1: Bar 1 contains a red box around a quarter note G4, a blue box around a quarter note A4, and a yellow box around a quarter note B4. Bar 2 contains a red box around a quarter note G4, a blue box around a quarter note A4, and a yellow box around a quarter note B4.
- Staff 2: Bar 1 contains a red box around a quarter note G4, a blue box around a quarter note A4, and a yellow box around a quarter note B4. Bar 2 contains a red box around a quarter note G4, a blue box around a quarter note A4, and a yellow box around a quarter note B4.
- Staff 3: Bar 1 contains a red box around a quarter note G4, a blue box around a quarter note A4, and a yellow box around a quarter note B4. Bar 2 contains a red box around a quarter note G4, a blue box around a quarter note A4, and a yellow box around a quarter note B4.
- Staff 4: Bar 1 contains a red box around a quarter note G4, a blue box around a quarter note A4, and a yellow box around a quarter note B4. Bar 2 contains a red box around a quarter note G4, a blue box around a quarter note A4, and a yellow box around a quarter note B4.
- Staff 5: Bar 1 contains a red box around a quarter note G4, a blue box around a quarter note A4, and a yellow box around a quarter note B4. Bar 2 contains a red box around a quarter note G4, a blue box around a quarter note A4, and a yellow box around a quarter note B4.
- Staff 6: Bar 1 contains a red box around a quarter note G4, a blue box around a quarter note A4, and a yellow box around a quarter note B4. Bar 2 contains a red box around a quarter note G4, a blue box around a quarter note A4, and a yellow box around a quarter note B4.
- Staff 7: Bar 1 contains a red box around a quarter note G4, a blue box around a quarter note A4, and a yellow box around a quarter note B4. Bar 2 contains a red box around a quarter note G4, a blue box around a quarter note A4, and a yellow box around a quarter note B4.
- Staff 8: Bar 1 contains a red box around a quarter note G4, a blue box around a quarter note A4, and a yellow box around a quarter note B4. Bar 2 contains a red box around a quarter note G4, a blue box around a quarter note A4, and a yellow box around a quarter note B4.
- Staff 9: Bar 1 contains a red box around a quarter note G4, a blue box around a quarter note A4, and a yellow box around a quarter note B4. Bar 2 contains a red box around a quarter note G4, a blue box around a quarter note A4, and a yellow box around a quarter note B4.
- Staff 10: Bar 1 contains a red box around a quarter note G4, a blue box around a quarter note A4, and a yellow box around a quarter note B4. Bar 2 contains a red box around a quarter note G4, a blue box around a quarter note A4, and a yellow box around a quarter note B4.

 The solo concludes with a double bar line at the end of the tenth staff.

**Figure 8.** Element of clarinet solo as scored for Clarinet 1 in *Eight Lines*, bb. 609–11



**Figure 9.** Element of clarinet solo as scored for Clarinet 2 in *Eight Lines*, bb. 461–62



At a structural level, Reich's piece moves through a circle of fifths from B-major in section 1 to F-sharp major in Section 2 and D-flat major in Sections 3, 4 and 5 (see Figure 1). In contrast, Howie B's remix alternates between B-major in sections A, A1, and A2 and D-flat major in Sections B, B1, and C (see Table 1, above), further delineating sections of the remix. Howie B has also simplified Reich's use of melody and harmony within sections of the score. In particular, the expanding 'cadential' progressions in the strings, canonic interlocking piano parts, and the resulting melodic lines found in the wind instruments are either not present or are dramatically simplified in Howie B's remix. In each case this can be attributed to Howie B's comparatively small repertoire of samples that reflect the sections of Reich's score they were taken from. As Howie B samples no material from Section 2 of Reich's score, it is understandable that the remix does not make use of F-sharp major as a tonal centre. Similarly, the sampled melodic lines and string parts do not evolve in the same manner as in *Eight Lines* simply because Howie B samples no more than two bars for each loop.

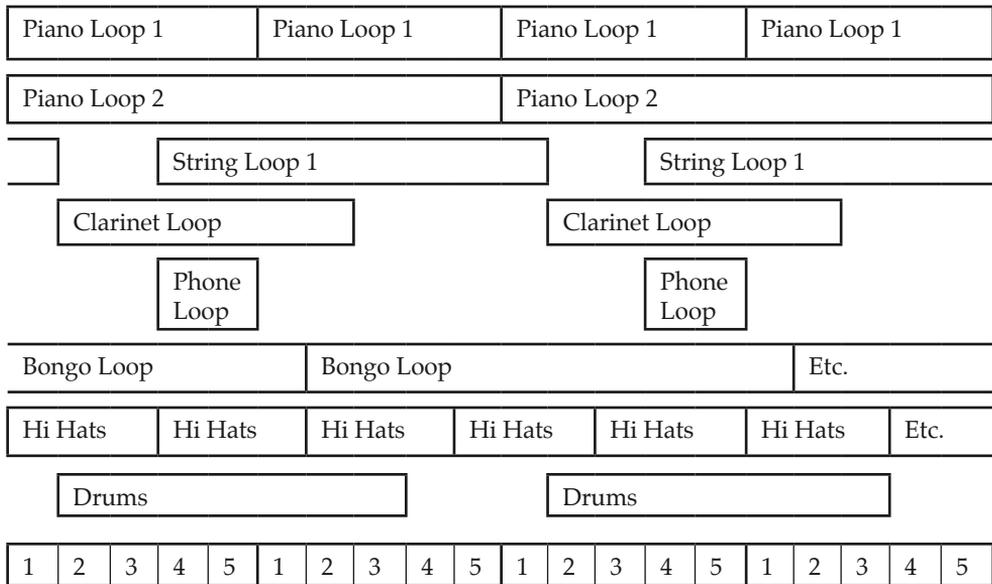
The only addition of harmonic material Howie B makes to the remix is in the bongo part, which is tuned to a C-sharp/D-flat. Though serving a primarily rhythmic function, the bongo helps to anticipate the shift from B-major to D-flat major by highlighting the C-sharp/D-flat in a manner similar to a pedal point or drone. The use of drones is a minimalist trait, although it would be a stretch to argue that Howie B's use of the bongo in this way results from a familiarity with the work of Terry Riley or La Monte Young. Rather, it is likely that the drone results from Howie B's choice of sample and is evidence of his taste and skill as a remixer, rather than any external influence. Howie B's remix evidences a reduction in harmonic and melodic complexity more in line with the norms of electronic dance music. Howie B has not engaged significantly with the harmonic complexity of Reich's original work, sampling selectively in terms of instrumentation, length, and location within the score.

Reich has praised Howie B for maintaining the metre of the original composition, suggesting, rightly or wrongly, that it is 'rare to find DJs or anyone else in the pop world who works in a metre like 5.'<sup>36</sup> As noted above, Howie B demonstrates a rudimentary understanding of the canonic rhythmic relationships present in Reich's score. He indicated that, though familiar with the time signature, he had not worked in 5/4 prior to the remix.<sup>37</sup> In fact, the retention of the metre of Reich's piece may be due to Howie B's choice of samples as, for the most part, Piano Loops 1, 2, 3 and 4 determine the metric pulse of the piece. A key rhythmic device used throughout the remix is the juxtaposition of repeating loops of varying lengths with autonomous downbeats (Figure 10). In this instance, the interaction between the looped rhythms has the effect of inducing the perception of metric dissonance

<sup>36</sup> Weidenbaum, 'The Public Record.'

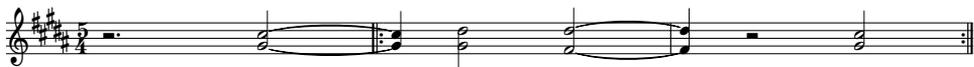
<sup>37</sup> Bernstein, interview.

**Figure 10.** Juxtaposition of loops in Section A1 of *Eight Lines* remix



and in some cases of metric shift. For example, the positioning of String Loop 1 (Figure 11) against Piano Loops 1 and 2 in Section A causes the part to be heard as syncopated in deviation from Reich’s Score (see Figure 12).

**Figure 11.** String Loop 1 as present in *Eight Lines* remix, beginning at 0:59

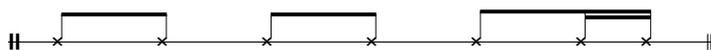


**Figure 12.** String Loop 1 as scored for Violins 1 and 2 in *Eight Lines*, bb. 1–2



Rhythmic dissonance is also introduced to the remix through the addition of several programmed percussion parts. Most obviously, the hi-hat pattern (Figure 13) induces a perception of polymeter by setting a 3/4 rhythmic grouping against the prevailing 5/4 structure.

**Figure 13.** Hi-hat pattern, beginning at 0:13 and repeated throughout



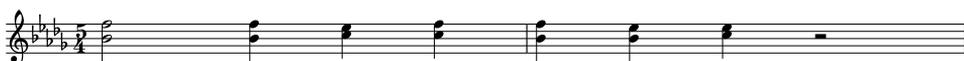
Similarly the Drum Loop in Section C (Figure 14) deviates from the conventions of asymmetrical metre as Howie B arranges the snare into unusual beat groupings of 2+1+ 2. This creates a feeling of tension when set against the more conventional 2+3 and 3+2 beat

grouping of String Loop 4 (Figure 15), particularly as the Drum Loop functions as the primary metric pulse in Section C.

**Figure 14.** Kick and Snare Drum Loop as present in *Eight Lines* remix, beginning at 3:34



**Figure 15.** String Loop 4 taken from *Eight Lines* score, bb. 443–44



The juxtaposition of looped fragments appears to illustrate Howie B's understanding of the canonic structure of *Eight Lines*, in as much as the remix is comprised of several elements 'going round and round in cycles.'<sup>38</sup> This interplay of incommensurable loops is not dissimilar to the polyrhythmic structure employed by Reich in pieces such as *Drumming* (1970–71). It should be noted, however, that this method of composition is also prominent in electronic dance music where works are often structured upon layers of repeating loops and cycles. Unlike Reich, Howie B does not use these techniques to achieve phase modulation and his placement of rhythmically dissonant loops is static. Once a loop is introduced it does not vary in regard to either placement or phrase and any sense of metric shift (discussed above) is abrupt, unlike Reich's own gradual processes. As with the structure of his remix, Howie B's use of incommensurate loops appears related to an intuitive approach to composition and what sounds 'right' rather than the deliberate use of polyrhythms found in Reich's pieces.

Throughout the remix, Howie B employs a number of techniques to bring about the modification of timbre via electronic treatments, as shown in Table 2.

**Table 2.** Timbral changes present in *Eight Lines* remix by section

	Remix A	Remix B	Remix C	Remix A1	Remix B1	Remix A2
Kick Drum	Distorted	Filtered Distorted	Distorted		Filtered	
Snare Drum	Delay added	Envelope modified Delay added	Filtered Envelope modified	Filtered Envelope modified	Envelope modified Distorted Delay added	Envelope modified Delay added
Bongo Loop		Resonant Filter applied			Resonant Filter applied	
Piano		Filtered Compressed				
Flute			Reverb added			
Vocal Samples	Delay added			Delay added		
Tambourine			Ring Modulated			
Hi Hat			Filtered Filter Swept Envelope modified		Filter Swept	Filter swept

<sup>38</sup> Bernstein, interview.

Timbral changes are effected through the application of filtering, distortion, compression, and the manipulation of the attack, decay, sustain, and release of sounds via envelope (ADSR) filtering. One example of these techniques is clearly audible in Piano Loop 3 (Figures 16 and 17) and Piano Loop 4 (Figures 18 and 19), which are heavily compressed in order to restrict dynamic range, filtered to remove low frequencies, and distorted to create a grainy texture. By treating the samples in this manner, certain notes become more prominent resulting in the perception of a particular rhythmic emphasis.

**Figure 16.** Piano Loop 3 as present in *Eight Lines* remix, beginning at 1:49



**Figure 17.** Piano Loop 3 as scored for Piano 1 in *Eight Lines*, bb. 286–87



**Figure 18.** Piano Loop 4 as present in *Eight Lines* remix, beginning at 1:49



**Figure 19.** Piano Loop 4 taken from Piano 2 *Eight Lines* score, bb. 335–36



Because the sonic treatments obscure the precise pitches being sounded, the resulting rhythmic pattern (see Figure 20) is foregrounded whilst the melodic and harmonic content of the piano recedes into the background of the mix. As a general principle, where timbral changes are applied to otherwise static elements of the remix, the effect is to move elements from the foreground to the background of the mix or vice-versa. Thus, timbral changes are used to create a sense of movement in the remix in a manner congruent with Reich's own use of timbral shifts for similar purposes. The presence of the resultant pattern is reinforced by



Howie B's remix of *Eight Lines* makes use of limited material from Reich's original composition and, in line with this reduction in material, displays a related reduction of harmonic and melodic complexity. Howie B's choice of samples engenders a strong association between sections of Reich's composition and Howie B's remix. Despite this, Howie B rejects the notion that the structure of his remix referenced Reich's original, and any similarities must be understood as a function of Howie B's choice of samples rather than Reich's influence.

Similar to many of Reich's works, Howie B's remix makes use of repetition as a structural device. Howie B retains the meter of Reich's piece and appears to emulate the canonic structure of *Eight Lines* through the juxtaposition of layered repeating motifs. Rhythmic dissonances, including the presence of metric shift and polymetre in the remix, are caused by the juxtaposition of looped materials and Howie B's unusual treatment of asymmetrical metre. These rhythmic dissonances contribute to a perception of a polyrhythmic structure not dissimilar to that used by Reich in pieces such as *Drumming*. In addition, Howie B's use of timbral changes and resulting rhythmic patterns are strongly reminiscent of similar techniques employed by Reich, and the simple audible additive and subtractive processes by which the remix is structured are evocative of Reich's notion of sounding-processes. Howie B's notion of 'process,' however, does not describe either musical or aesthetic processes in a manner recognisably similar to those used by Reich. Consequently, it would be difficult to ascribe the largely intuitive process of music creation described by Howie B to the influence of Reich's own conception of audible processes.

The use of repetition is a fundamental feature of much of Howie B's work, as are the use of electronic sound sources and treatments, minimal harmonic content, and composition utilising a minimum of means. Howie B's remix of *Eight Lines* also utilises dub-style production techniques, including the use of additive and subtractive processes; the use of electronic treatments; the juxtaposition of looped material; the use of recontextualised sounds; and an emphasis on timbre and texture in the remix. Furthermore, the remix bears clear stylistic similarities to dub in the use of delay washes, vari-speeded (time-stretched) samples, and the juxtaposition of incommensurable loops creating rhythmic dissonance. Given Howie B's acknowledgment of the influence of dub on his work it is reasonable to attribute these traits to the influence of Jamaican dub music rather than Reich's work.

While Howie B's use of Reich's *Eight Lines* as source material has had an obvious influence on the content, form and rhythmic construction of the remix, Howie B has not engaged with Reich's material in a manner that is outside the scope of his usual practice. Consequently, this article challenges the notion made in the liner notes of the *Reich Remixed* CD that minimalism has somehow 'filtered into the consciousness'<sup>41</sup> of electronica and suggests the need for a more clear and reliable scholarly documentation of the history of electronic music in the context of popular culture in the late twentieth and early twenty-first centuries.

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<sup>41</sup> Gordon, *Reich Remixed*, 2.