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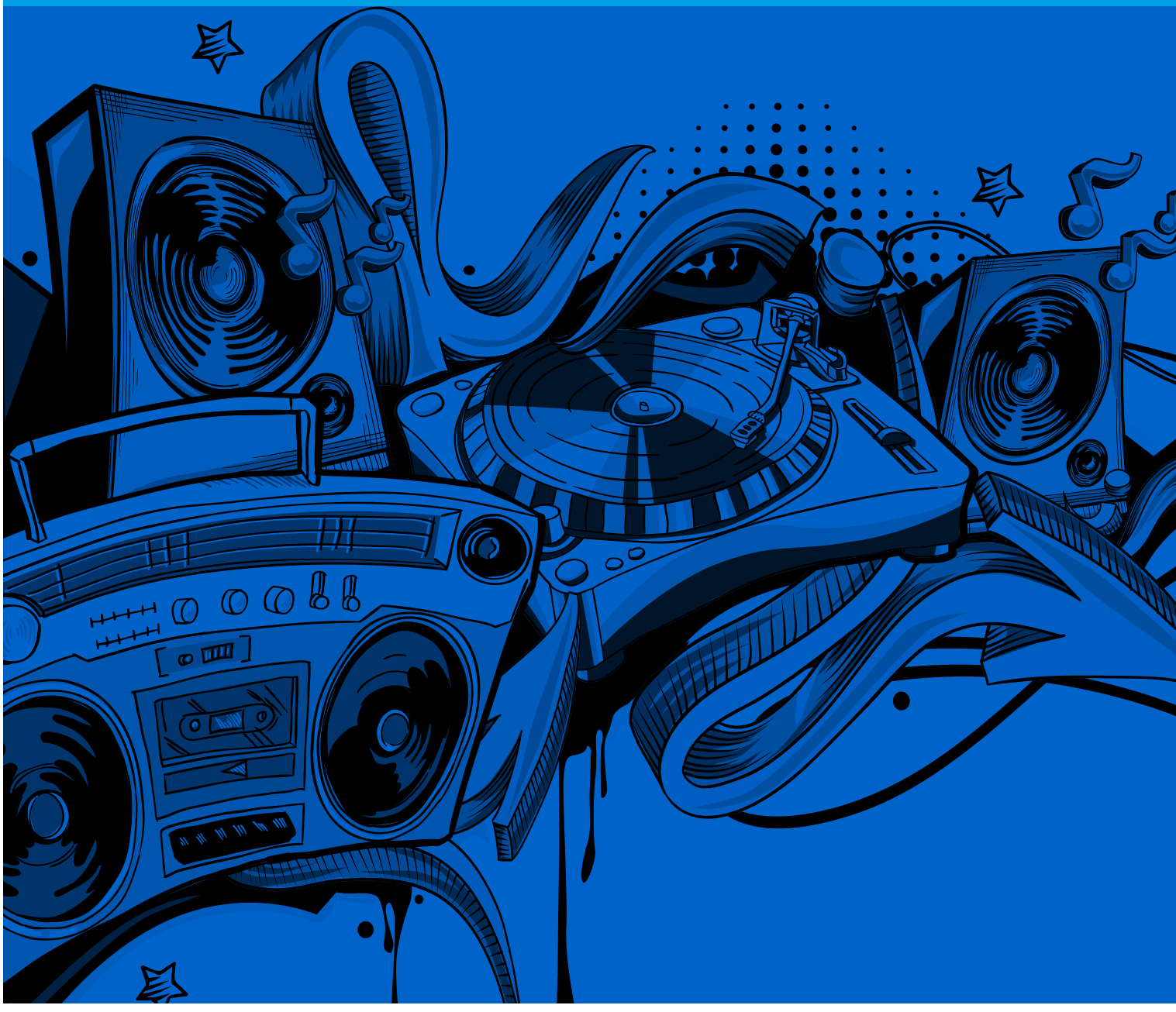
HIP HOP TIME MACHINE

Re-imagining the 'phonographic' in sample-based hip-hop record production: research design for contemporary forms of creative audio practice



This article embarks on a two-fold investigation, examining the aesthetic implications of sample-based record production using re-imagined phonographic sources, and exploring applied research design for contemporary forms of music-making. Challenging traditional models of musicological analysis, the author demonstrates how multi-methods research leverages the study of 'meta' genres of creative practice.

Rap—or hip-hop music—production (the terms rap and hip-hop music will be used interchangeably throughout the article, referring to rap as the musical element of hip-hop culture) has challenged the dichotomy between the *documentarian* capture of live performance and the construction of phonographic illusions to a *meta* level. By a *documentarian* function I am referring to realistic representation in the recording of live performances, (a musical performance by a number of live musicians within an actual space). Progressively, however, and through the advent of multi-tracking, offering extensive post-production affordances to record producers, music production has evolved toward the creation of *impossible* performances and the sculpting of complex, unreal spaces (not sonically representing actual, natural environments). Zak (2012, 43) argues that record producers responded to the 'blank slate' provided by technological affordances in the 1950s and the absolution 'of representational responsibility […] by crafting a language of record production—one record at a time—whose rhetoric relied […] on situating a record in a universe of other records'. But what are the implications for a form of music—or music-making process—that does not only conceive of 'records as texts', creating records as 'distinctive rhetorical flourishes in a new language of musical sound' (Zak, 2012, 54), but rather utilises the very *sound* of records as 'plastic material' (Chang, 2009, 147)? The article will argue that sample-based music forms complicate the notion of constructed phonographic illusion in an *exponential* sense (through multi-layered juxtaposition and sonic manipulation), both resulting in noteworthy implications for the developing aesthetic of record production and requiring appropriate methodological alternatives for the musicological study of such phenomena. Sampling in hip-hop practice is a form of digital recording of short segments of sound, often utilising previously released phonographic material, and leading to music-making processes that build upon such raw sonic sources.

Although critical of the sampling processes that lie at the foundation of hip-hop music production, Reynolds offers a powerful analogy regarding the genre's potential for exponential sonic juxtaposition:

> 'Recording is pretty freaky, then, if you think about it. But sampling doubles its inherent supernaturalism. Woven out of looped moments that are like portals to far-flung times and places, the sample collage creates a musical event that never happened […] Sampling involves using recordings to make new recordings; it's the musical art of ghost co-ordination and ghost arrangement.' (Reynolds, 2012, 313)

Schloss (2014) on the other hand argues that it is this very difference from other forms of music-making—with all its implications—that lends the style its essential aesthetic. Schloss (2014, 72) states that 'the idea of sampling as an aesthetic ideal may appear jarring to individuals trained in other musical traditions, but it absolutely exemplifies the approach of most hip-hop producers', and he later adds that 'this preference is not for the act of sampling, but for the sound of sampling: It is a matter of aesthetics' (ibid., 78).

Between live performance and the phonographic sample

Yet, hip-hop practitioners are faced with pragmatic, not only philosophical, aesthetic and ethical concerns. Much has been written about the effects of ever-tightening copyright law on sampling and hip-hop practices, citing the 1991 Biz Markie case as a landmark inflection point, with notable consequences for the style's ensuing aesthetic (see, for example, McLeod, 2004). The lawsuit involved Biz Markie's "Alone Again" (1991) featuring a large portion of Gilbert O'Sullivan's "Alone Again (Naturally)" (1972) and resulting in the court ruling that sampling without permission was a copyright infringement. In an interview with Kembrew McLeod, Hank Shocklee of The Bomb Squad—the production team behind Public Enemy's heavily sample-laden albums *It Takes a Nation of Millions to Hold Us Back* (1988) and *Fear of a Black Planet* (1990)—offers a telling example:

> 'We were forced to start using different organic instruments, but you can't really get the right kind of compression that way. A guitar sampled off a record is going to hit differently than a guitar sampled in the studio […] So those things change your mood, the feeling you can get off of a record. If you notice that by the early 1990s, the sound has gotten a lot softer.' (McLeod, 2004)

Fast-forwarding to 2017, the legal landscape, music industry power structures and high premiums required for sample-clearance, have resulted in a stagnation of phonographic sources as raw sonic materials for a large subgroup of the hip-hop making community. As Marshall (2006, 869) explains 'some, such as Kanye West, Just Blaze, P. Diddy, and other producers working for large record labels, enjoy production budgets that permit them to license any sample they like […] Some producers and acts, especially independent and largely local artists, operate well enough under the radar to evade scrutiny or harassment and continue to sample with impunity. And some—in particular, acts with a sizeable national, if not international, following but who lack the resources of a "major label"—find themselves in a tight spot: to sample or not, to be real or not, to be sued or not?'

In response, rap practitioners have sought alternative production methods with an increased reliance on live performance recording and interpolation (the studio re-creation of the performances *and* sonics of an existing recording, which avoids breaching mechanical–phonographic–

copyright, whilst still in use of the original composition), despite the continued criticisms attributed to these creative approaches in terms of their perceived authenticity. Live hip-hop band The Roots are frequently subjected to such critique, consciously defending their position as a predominantly live rap act, whilst investing considerable efforts to ensure a sample-based sonic on their instrumentation. Marshall points out (ibid., 880) that 'the degree to which the Roots' music indexes hip-hop's sample-based aesthetic serves as a crucial determinant of the group's "realness" to many listeners. At the same time, the Roots' instrumental facility affords them a certain flexibility and freedom and allows them to advance a unique, if markedly experimental, voice within the creative constraints of "traditional" hip-hop's somewhat conservative conventions.' He highlights here two important points: the invested power of the sample-based aesthetic as a stylistic determinant for the genre, as well as the creative potential lurking in hip-hop's further interaction with original composition and instrumental facility. Consequently, it could be argued that beyond a pragmatic need to explore alternative approaches—borne out of legal or financial limitations—the sample-based pursuit may also owe to its very survival and future development the exploration of effective methods for marrying compositional and instrumental innovation with sample-based utterances. As hip-hop producer Domino states 'I just think that, now, you're getting to the point where … you're running out of things to find. And so, a lot of the best loops have been used already' (Schloss, 2014, 164).

In order to bridge this apparent dichotomy, it is important to answer a number of related questions: What are the quintessential factors that contribute to a sample-based rap (production) aesthetic, and–by consequence–to its perceived stylistic authenticity and sonic impact? What differentiates a phonographic sample from the inclusion or recording of live musicianship into a sample-based approach? And what are the implications of an increased interaction between live musicianship and sampling, for the future development of the genre?

Theoretical gap

Much of the literature on hip-hop musicology and sampling processes acknowledges 'the ramifications of sampling in the creation of hip-hop beats' and 'in particular […] the ways in which the aesthetics of sampling and borrowing demand non-traditional approaches to understanding the musical layers of hip-hop' (Adams, 2015, 122). A number of scholars examine particular practitioner case studies offering closer ethnographic perspectives of the compositional dynamics in sample-based music creation (e.g. Schloss, 2014), while others explore the notion of sample-based production as legitimate 'composition' (e.g. Harkins, 2008) or the tensions between live instrumentation and sample-derived notions of authenticity (e.g. Marshall, 2006). Yet, the acknowledgment of the sample-based approach as legitimate composition, its contribution to notions of hip-hop 'authenticity' and even the argument for or against live instrumentation within a hip-hop context, still leave the practitioner faced with a practical conundrum: how does one incorporate newly composed and recorded live instrumentation into the hip-hop process and synthesise this—financially, legally or creatively borne—necessity with the pursuit of a sample-based aesthetic? By consequence, this 'need for study' area may require the interjection of creative practice as an applied phase into musicological research, in order to enrich the investigation, test the theoretical findings, and refine them against the very aesthetics of the practice and its outputs. This gap is identified by Zagorski-Thomas (2014, 45-46) as a 'lack of explicit discussion of how this theory should inform the practicalities of production'. Adams (2015, 118), furthermore, warns that hip-hop 'resists traditional modes of musical analysis more than almost any other genre' because 'the techniques developed for the analysis of Western art music, even when they can provide accurate descriptions of some of hip-hop's surface phenomena, often leave the analyst without a deeper sense of how hip-hop operates and why it seems to communicate so effectively with such a broad audience.' (ibid.)

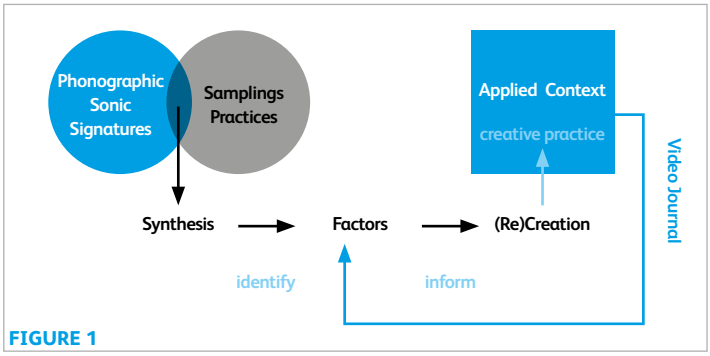


FIGURE 1

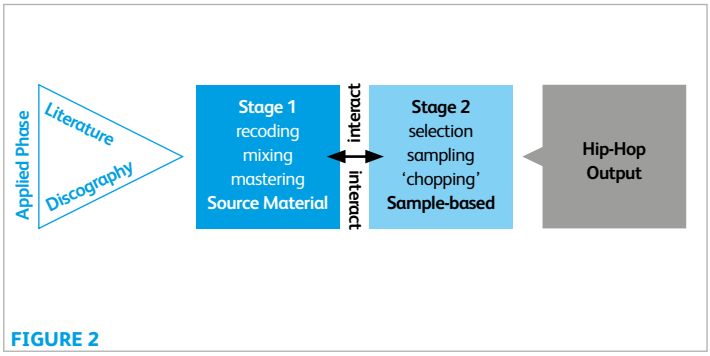


FIGURE 2

Hip-hop practitioners are faced with pragmatic, not only philosophical, aesthetic and ethical concerns. Much has been written about the effects of ever-tightening copyright law on sampling and hip-hop practice

Applied methodology

Following from above, it makes sense to incorporate creative practice as a linked methodological phase in this analytical context. Although doing so may not be the only means by which to enrich the musicological analysis of hip-hop, the bricolage (multi-methods) approach proposed in this section attempts to explore multiple perspectives—and reach beyond the live/sampled binaries identified—through a combination of intertextual analysis, (auto)ethnography and creative practice. Exploring the interaction between vintage record production techniques and sample-based processes in contemporary hip-hop, the methodology is being employed in the context of my practice-based doctoral research project. Figure 1 illustrates the methodological approach.

The first phase of the research design proposes the analysis of historiographical and musicological literature on the notion of *phonographic* signatures, combined with the literature on sampling practices, to identify the sonic factors that draw the sample-based producer into the selection of particular audio sources. The findings form a typology of factors that are recreated in the following, *applied* phase and then infused to the actual production of live instrumentation facilitating the subsequent, sample-based compositional stage.

The applied phase (see Figure 2) consists of a primary stage involving the recording, mixing and mastering of original content, referencing previous styles and eras (typically, ones that feature frequently in hip-hop discography as sampled sources—i.e. 1970s funk), composed and engineered by the author with the aim of providing a rich pool of raw sonic material for the subsequent sample-based stage. The production of the content is informed by historical and technical detail derived from a wide range of historiographical and musicological sources (e.g. Milner, 2009), engineering and production textbooks, and aural (critical listening) analysis of relevant discography. The second stage involves the selection of numerous short samples from the recordings of extended instrumental improvisations (jams), assigned as digital files to the drum pads of characteristic sampling drum-machine tools used in the genre (such as Akai's MPC range, chosen here as a representative tool for the composition and production of the hip-hop production phase; the MPC sampling drum-machines are a historical mainstay in the arsenal of hip-hop production tools, dating back to the release of the MPC60 in 1988, and combining sampling, drum-programming and MIDI-sequencing functionality with a tactile hardware interface—the latter promotes a percussive style of performance resulting in re-imagined musical phrases characteristic of the sample-based hip-hop aesthetic.) Maintaining a research video journal throughout all practice-led activities is essential for enabling reflexive analysis that drives the developmental process (a public-facing version of the journal, entitled #HipHopTimeMachine, documenting the author's journey of ongoing practical experiments can be found at https://goo.gl/N2CblN).

Making records within records: implications

The effect of fully engaging with a record-making process, initially outside of the hip-hop realm—albeit ultimately for it—, alters the producer's focus from a specific to a holistic perspective in relation to temporal, structural and dynamic factors. Within a strictly hip-hop context, the creative focus remains narrowed down to the segment, the isolated source, or a loop of short duration. Whether the task at hand is replacing copyrighted phonographic material, interpolating, layering individual instruments over an existing beat or creating commercial sample-library content, the creative dynamic in all of these cases differs from the set of conditions that give birth to phonographic moments of interest for sample-based producers. It is also important to consider the work-flow implications resulting from the order of actualising different phases—recording on top of a sample-based production is radically different (compositionally and texturally) to the layered, additive processes initiated by the use of a sample in hip-hop music creation.

The phonographic sample, instead, carries sonic manifestations of human agency, interaction, recording media and equipment used, and captured space, and it is also the end result of multiple processes that have left layered textural 'marks' upon the sonic content. The recording, mixing, mastering and manufacturing processes involved result in sonic artefacts that have been constructed by these additive, developmental phases, not unlike the effect the many coatings of paint leave upon a finished painting. Eno (2004, 129) has famously observed that: '(Studio composition) puts the composer in the identical position of the painter—he's working directly with material and onto a substance, and he always retains the options to chop and change, to paint a bit out, add a piece, etc.'

Furthermore, the infinite variables interacting within a record-producing context result in peculiar momentary occurrences or 'ephemera', which Zak (2001, 89) refers to as: 'familiar instrumental colours (that) are largely absorbed into a textural mass that is itself a colour—a new one'. Describing a Phil Spector mixing session (for song Zip-a-Dee Doo-Dah, 1962), he provides a telling example of the drawing power these occurrences can exercise on the listener: 'At a certain point, he commanded (engineer Larry) Levine to hit "record". Levine protested that he had not yet turned on electric guitarist Billy Strange's microphone. The guitar's sound was bleeding into other instruments' microphones, but it had no focused presence of its own. Spector, however, insisted: this was to be the sound of "*Zip-A-Dee-Doo-Dah*" […] It becomes clear that this guitar inhabits a world all its own, which has been before us from the beginning yet has somehow gone unnoticed. We are drawn in, shown around briefly, and then returned to the more familiar…' (ibid., 82-83)

Such ephemera, which become focal points for sample-based producers—and which assume a less fleeting function once featured within a cyclic hip-hop structure—require a *macro* record-making perspective for their effective incubation; and while it is theoretically possible to accurately recreate processes that do emulate the sonics of specific eras and styles, perhaps the aim of incorporating new music within hip-hop production, in a complimentary manner to its sample-based aesthetic, should reach beyond copying and pasting existing phonographic signatures. The vintage characteristics embedded in hip-hop's sonic 'citations' is undeniably one of its features, but it is perhaps the essence of a 'record' used *within* a record-making process that enables rap production its very function. Quoted in Schloss (2014, 157), DJ Kool Akiem confirms: 'It's not about playing music; it's about playing records…. To me, sampling is playing records more precisely'.

Sampling interaction

By consequence, this brings about the question of the degree of self-consciousness that should be pursued when 'making records within records' or, in other words, purposefully constructing phonographic moments for subsequent sampling. On the one hand, a certain distance from the sample-based process appears beneficial for the macro perspective discussed earlier. On the other hand, when the creative intention is for original composition and performance to interact with subsequent sampling—in a synchronous or near-synchronous manner—it may be fruitful to consider sampling practices as *active* determinants in the shaping of the source material (as opposed to mere agents in manipulating a 'passive' recorded past).

The effect of studio practices on the evolution of musical aesthetics has precedents that date back to the very beginning of phonography. To cite an early phonographic example from blues repertoire, Rothenbuhler (2007, 78) has demonstrated that Robert Johnson's 'music reflected a then nascent recording culture (…which) was influenced by recorded music and showed signs of being composed and performed with attention to a kind of for-the-record aesthetic'. Similarly, for a studio process that enables the creation of content designed to feed subsequent sample-based composition, this may be described as a case of pursuing a kind of '*meta*'-record aesthetics, where the meta-genre (sample-based hip-hop) not only digests but *shapes* the source-genre.

Juxtaposing and reorganising sampled segments from original material can give birth not only to re-imagined harmonic progressions, but also to harmonic departures, extensions and substitutions

The effect of sampling technologies and associated processes typically embedded in hip-hop practice has further creative implications for their interaction with source material and, ultimately, the shaping of the sonic outputs. An archetypal rap production tool such as the Akai MPC facilitates a unique workflow due to its interface design, the operating system, but also a number of inherent sonic characteristics, collectively inspiring particular musical utterances and production artefacts. In effect, sample-based hip-hop imposes a (present) phonographic process upon the outputs of one or more (past) phonographic processes, and it is by default defined by this exponential interaction. The exponential effect can be heard in the juxtaposition of phonographic sonic signatures, captured ambiences, the resulting hyper-textures, but also in multidimensional harmonic and rhythmical interactions.

Juxtaposing and reorganising sampled segments from original material can give birth not only to re-imagined harmonic progressions, but also to harmonic departures, extensions and substitutions. The melodic content that is contained within a sampled segment assumes harmonic implications when repeated within a cyclic structure. The repetition of such content renders it more constant, and the hip-hop producer may choose to augment or suppress what is inadvertently implied through equalisation, filtering or additional layering. Furthermore, typical monophonic triggering (a sampler typically treats a single audio sample as a monophonic "note-on" MIDI event, even if—intrinsically—the sample contains polyphonic material musically-speaking) and auto-muting functions found on most digital samplers result in highly rhythmical interactions between new programming decisions and the inherent rhythm of the original material contained within a sampled segment. This can be exaggerated by highly swung quantisation (the algorithmic process of time-correcting musical events to a metric grid) settings creating tight syncopation between the beginning of a new segment, the truncation of a previous sample, and the relative positioning of rhythmical content already present in the audio sample. It could be argued, that the resulting sensibility is quintessentially hip-hop: the meta-syncopation interacts favourably with the sampled material's intrinsic syncopation. Schloss (2014, 159) explains that 'a hip-hop beat consists of a number of real-time collective performances (original recordings), which are digitally sampled and arranged into a cyclic structure (the beat) by

a single author (the producer). In order to appreciate the music, a listener must hear both the original interactions and how they have been organised into new relationships with each other.'

Conclusion

The overarching aim of this investigation has been to identify the factors that define a sample-based rap production aesthetic, apply them to the performance and recording of new music, and leverage its interaction with sampling practices. The combined methodology of intertextual analysis, creative practice and reflexivity has empowered a developmental research design informing practice but also allowing practical insights borne out of the creative troubleshooting to feed back onto the theoretical framework. The practical problem confronted is a well-documented conundrum in hip-hop music making, where the legal landscape compromises producers' freedom to create new music using phonographic sources, despite a reverence for the sample-based aesthetic. In attempting to understand what differentiates phonographic samples from other raw sonic materials within a sampling context, it has become clear that it is the sonic and musical interaction between the sample-based process and phonographic "ephemera" that lends rap production its quintessential aesthetic signature—in turn, rendering sample-based hip-hop as a *meta*-genre dependent on its interaction with other genres/styles. As a practical methodology for music makers, the implication is that it is not enough to infuse the 'right' (authentic or vintage) sonic markers onto newly created or reconstructed source material. The sample-based production method is most effective when interacting with phonographic occurrences—a hyper-phonographic case of chopping up, manipulating, juxtaposing and rearranging moments of controlled creative chaos.

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