‘Past’ Masters, Present Beats: Exponential Sound Staging as Sample-based (Re)Mastering in Contemporary Hip Hop Practice

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Abstract

Previous research dealing with sample-based music production has favored notions of musical borrowing in sampling over the sonic rationale of the practice—that is, the appeal of past ‘sonic signatures’ to samplists and the processes involved in incorporating them within contemporary phonographic constructs. This appeal can be attributed not only to recording and mixing approaches, but also to mastering strategies. A more recent phenomenon in hip hop music production involves practitioners creating their own material for subsequent sampling and infusing it with convincing phonographic qualities, to satisfy a sample-based aesthetic that until recently has relied heavily on the past. In this sample-based context, the lesser attention given to the sonic ‘object’ calls for a focused investigation of the variables involved in the fusion of ‘past’ (or previously constructed) and present phonographic processes. This inquiry focuses on the merging of ‘staging’ illusions as a subset of such variables, questioning how full-range masters function as source content in sample-based engineering and production processes. The examination explores how hip hop producers negotiate the dimensions of ‘depth,’ ‘height,’ and ‘width’ imbued into masters when used as sampled sources, and the ways in which beat-makers stage previously-constructed mix architectures into newly-juxtaposed sonic illusions.

1. Introduction

At the end of his article, ‘Considering Space in Music,’ William Moylan poses the following questions [1]:

‘How do we define the activities and states of spatial qualities as musical materials (concepts) or as ornamental embellishments within the musical texture? How do we calculate their impact on the music, their functions and significance?’

His call for further ‘inquiry … of how space functions in recorded music’ [1] follows the proposition of a methodology and theoretical framework that consider the spatial qualities, perceived distance locations, and lateral imaging of both individual elements and the overall sound of records. In response, this chapter examines the implications of the spatial architectures that are constructed within records, in terms of their function as source material in sample-based hip hop practice. Furthermore, the study takes advantage of creative reactions to the legal and financial landscape surrounding the diminishing use of copyrighted samples (for a considerable proportion of the beat-making community), and explores contemporary approaches to the creation of sample material. The investigation focuses explicitly on the contemporary practice that involves hip hop producers creating and imbuing original source content with convincing—often vintage—phonographic qualities, to facilitate subsequent sampling processes in pursuit of a sample-based production aesthetic. The underlying hypothesis is that, unlike Moylan’s pop/rock phonographic examples (e.g. The Beatles and Pink Floyd) that are founded on a track-based approach toward the creation of mix architectures, sample-based Hip Hop depends on the juxtaposition, interaction, and mixing of full *masters*. The approach leads to a form of *exponential sound staging* that sees beat-makers carefully negotiating and reshaping often multiple instances of layered master segments and, it

will be argued that, this phenomenon is a defining aspect of the sample-based sonic aesthetic. As an issue that has not yet received sufficient attention, it complicates existing discourse relating to the notion of *staging,* necessitating further inquiry. The questions this study pursues, thus, are:

- How do sample-*creating*-based practitioners construct and merge spatial illusions contained within 'masters' used as source material in hip hop production?
- What are the dynamics of this interaction? In other words, how do beat-makers negotiate the dimensions of *depth*, *height,* and *width* imbued into masters as part of the creative sample-based process?
- And what is the meaning of these exponential staging strategies for the sonic narratives communicated by the end artefacts?

In order to answer these questions, the chapter deploys a bricolage methodology that combines literary and aural analysis with autoethnographic interpretations of creative practice. The aim is to allow for the study, respectively, of literature dealing with the notion of staging, previous hip hop discography containing relevant case studies, and creative practice functioning as an applied context.

2. Staging Literature and Hip Hop Sonics

Staging is a notion that has emerged from theorizations by a number of scholars over the placement of musical elements within the perceived or virtual space of a (popular) music mix. In essence, it suggests conceptualizing a music mix as a 'stage' where the placement, but also the dynamic movement and manipulation of musical elements (mediation), assumes thematic and narrative implications (meaning) for both listeners and producers. The concept was first introduced by William Moylan with a focus on the spatial implications of mediation possible within a mix [2]. Serge Lacasse explored it further, investigating the effect of textural and dynamic manipulation specifically on the voice in rock production [3]. Simon Zagorski-Thomas extended the definition to include functional and media-based staging, respectively taking into account 'the function to which the recorded output will be put' [4] and the effect of how 'particular forms of mediation associated with audio reproduction media have been used to generate meaning within the production process' [5]. Michael Holland expanded the concept to include the use of acoustic spaces captured in tracking as a form of staging mediation [6]; and Aaron Liu-Rosenbaum has been tracing musical and narrative meaning in recording studio aesthetics offering 'an … expanded notion of staging which applies not only to the voice, but also to instruments' [7].

As staging heavily references a visual metaphor for the representation of sonic phenomena, a number of authors have developed intuitive graphical strategies to illustrate the placement, movement, and manipulation of sonic objects within contemporary music mixes. Popular examples include David Gibson's conceptualization of mix layers as sonic objects represented in three dimensions (using a vertical/height axis for pitch/frequency, a horizontal/width axis for lateral position, and a depth axis for distance location) [8]; and Moore and Dockwray's 'sound-box' illustrations, which add 'temporal continuity' to their conceptualization of a four-dimensional virtual performance space [9]. Moylan, however, clarifies that 'aligning pitch/frequency with elevation … is not an element of the actual spatial locations and relationships of sounds, but rather a conceptualization of vertical placement of pitch' [1]. Nicholas Cook goes beyond metaphor and considers the merits of data-driven visual representation for audio analysis, whilst warning against solely empirical or statistical readings of recordings. His position balances the promise of 'a visualization based on objective measurement [that] can act as a prompt to further critical study' with a question of whether 'empirical … approaches [can] really help us understand music as a cultural practice' [10]. Visual analogy is, therefore, widely deployed to enrich literary theorizing on the spatial aspects of recordings and the meaning of staging strategies, but the pursuit of thematic, narrative or cultural implications

favors metaphor over objective data representation (as a bridge between textual reification and sonic manifestations of mixing practice). As will be shown next, conceptual visualization forms a key means of extending staging theory to cover sample-based phenomena, and the strategy will focus on illustrating how the (multi)dimensional space of full masters is (re)staged within hip hop constructs—a notion that is referred to as 'sample-staging' in the remainder of this chapter.

The central motivation behind pursuing an extension of staging theory to cover sample-based phenomena is that existing discourse uses, as the basis for the development of analytical frameworks, a binary lens focusing predominantly on two levels: that of the overall sound of a record, and that of individual sources. Moylan asserts that '[t]hese two levels of perspective or detail are what separate the mastering engineer … and the mix engineer' [1]. But when full phonographic master segments are utilized as building blocks in sample-based composition/production, this has profound ramifications for the meaning(s) of the practice. The sample-based producer additionally assumes a *mastering* perspective, working with the overall sound stages of full masters (record segments), yet *mixing* them as individual elements within the sample-based 'collage'. Beat-making practice, therefore, does not only blur the lines between production and mixing—see, for example, Matt Shelvock [11, p. 170]—but mastering as well, necessitating a rethinking of sample-based source elements as multidimensional sonic objects.

When it comes to understanding the sample-based aesthetic from a sonic perspective, nevertheless, the heavy focus on 'musical borrowing' [12] in hip hop literature does shift the analytical lens to surface phenomena (such as the layering and re-arrangement of musical motifs). Conversely, the chapter will attempt to demonstrate the interrelationship between staging mechanics and the essence of the aesthetic. Notable attempts that offer a useful basis to start from include Sewell's sampling typology, which categorizes hip hop samples in terms of their layering/structural function [13], and Krims's notion of the 'hip-hop sublime' which acknowledges *timbre* as the essential organizing factor at the heart of the music [14, pp. 41-54]. Neither of these crucial theoretical perspectives, however, cover the mixing mechanics underlying the timbral processes and—by extension—the staging phenomena responsible for the 'architectural' organization of the respective sampled layers. Although Schloss does highlight beat-makers' 'ability to juxtapose the qualities of different recording environments,' he defaults back to a *motivic* understanding when he defines 'chopping' as the 'practice of dividing a long sample into smaller pieces and then rearranging those pieces in a different order to create a new *melody*' (emphasis added) [15, p.151]. Could this be then why Goldberg, instead, attributes the hip hop aesthetic to the 'spatial modification' inherent in the 'exploding kicks', 'echoing snares, and the sometimes terrifying sonic manipulations of DJ scratches' [16, p. 130]? The following case studies drawn from discography illuminate such mixing/staging phenomena identified in masters used as samples in hip hop production.

3. (Illustrating) Sample-staging in Discography

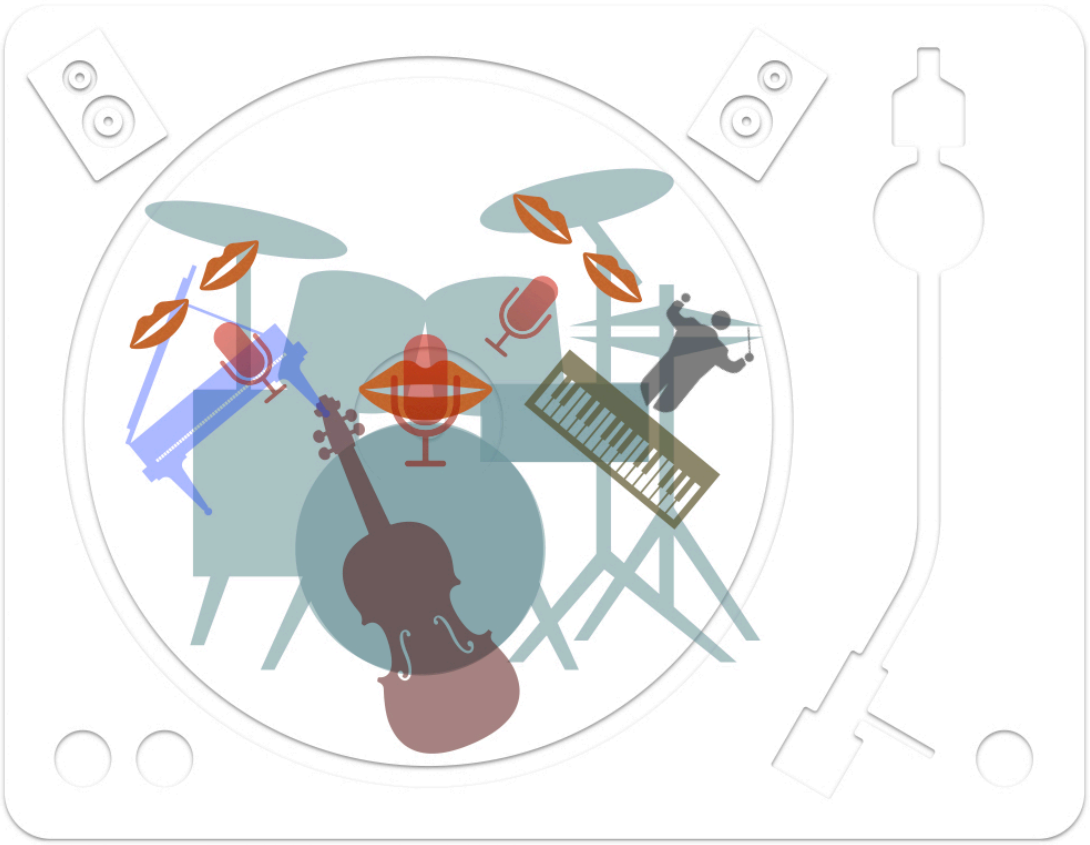
3.1. Width, Height, and Media-based Staging

Starting from a sample-staging strategy dealing with a practical conundrum first, the following excerpt from a recent article on low-end stereo placement, illustrates how Melba Moore's 'The Flesh Failures (Let the Sunshine In)' [17] has been (re)staged in Mos Def's 'Sunshine' [18] by Kanye West [19]:

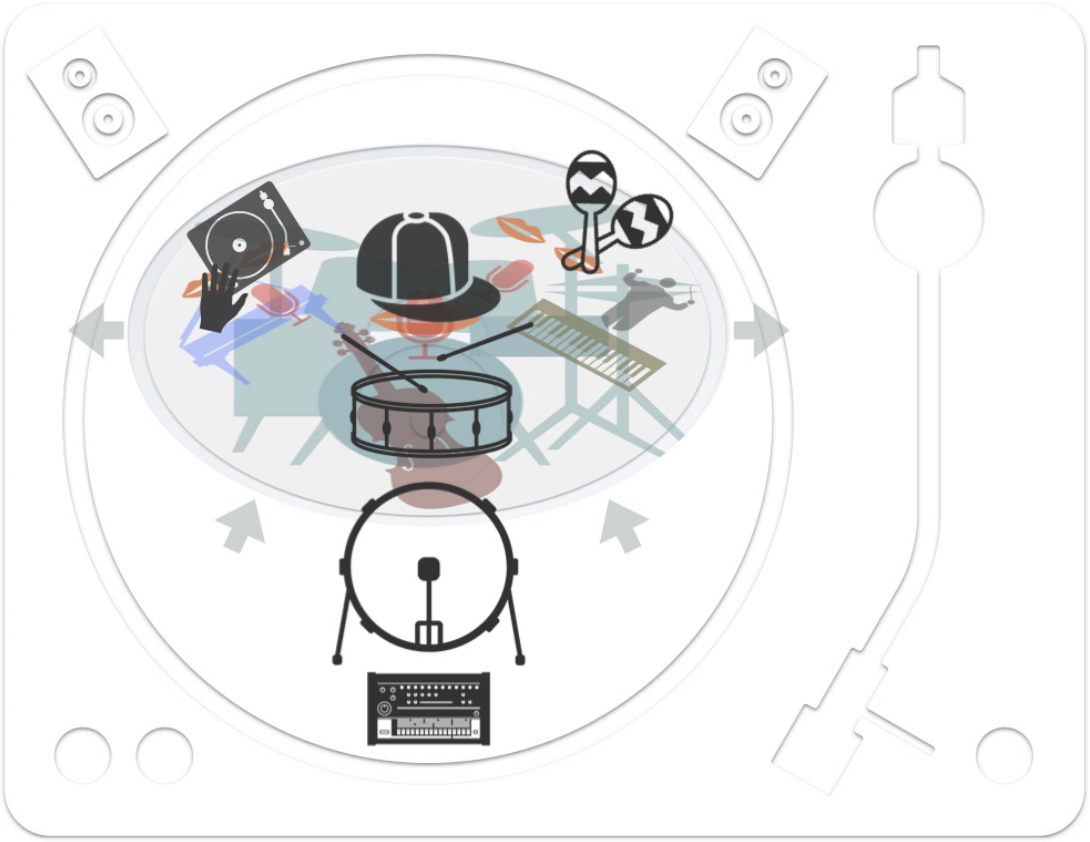
'Hip Hop producers … often face the problem of adding a more powerful bass element to a historic loop containing a bass part … Kanye West solves this by applying mid/side processing to the sample, thus creating ultra wide stereo with a significant dip in low end frequencies in the middle of the image. Into this he places low bass, often only occupying the sub-bass spectrum … the careful application of the mid/side processing allows for acceptable mono reproduction.' (p. 89)

Following the textual analysis with a visual representation, Figures 1a and 1b respectively portray the sampled record's perceived stage, and the way it has been reshaped within the space of West's beat (and Superstar Dave Dar's mix):

//Figure 1a // POMP5_C_figure01a.jpg



//Figure 1b // POMP5_C_figure01b.jpg



//Caption// (a) A schematic representation of the perceived staging of the chorus in Melba Moore's 'The Flesh Failures (Let the Sunshine In)' and (b) its reshaping in Kanye West's production of Mos Def's 'Sunshine' (the new beat elements enter at the end of the chorus, while a different segment from the original is used for the verses //

Although already notably wide—featuring a 'diagonal' [9] image with piano on the left; organ and orchestral elements on the right; lead vocals, drums and bass in the middle; and different registers of backing vocals spread both left (for low parts) and right (for high parts)—the 1970s master has been further widened on the lateral axis, but also pitched/sped up. The pitch adjustment results in a frequency shift, pushing the spectrum higher, whilst additional equalization may have been deployed as part of the mid-side processing. Whether the processing has taken place in the beat-making stage by West, the mixing stage by Dar, or as a combination of both, the resulting sonification is equivalent to a series of (re)mastering artefacts: the weakened middle image and shifted frequency spectra may not have made sense as mastering decisions for an actual or standalone release, but in the context of the new sonic environment they function both in terms of mix architecture and, as is discussed next, in a narrative sense.

A discernible amount of vinyl crackle can be heard on the resulting introductory section of the hip hop production, which may be the result of a particular combination of record player, stylus, and vinyl record deployed, enhanced by the pitch/equalization adjustments, or even added in post-production so as to accentuate the vintage qualities of the source. Sample-based Hip Hop has been founded upon the use of past phonographic sources, and therefore featuring the sonic

past—in an audible, exaggerated, or even artificial sense—within its contemporary artefacts has become part and parcel of its aesthetic [20]. Going beyond the functional rationale, thus, it can be argued that the combination of lateral, vertical, and media-based staging for the sampled record has thematic and narrative implications, too. The layers of old elements (sample) and new additions (Mos Def's rap, Kanye West's drum hits and sub bass) are communicated as *distinct streams* via their vintage-contemporary sonic signature binaries. The striking spatial staging enhances the effect and although it may have been initially conceived of as a pragmatic strategy, creating mix space for the new elements (in the lateral and vertical sense), it remains congruent to the sonic interplay of 'past' and 'present'—a dynamic which overwhelmingly characterizes the sample-based aesthetic. Moylan asks in relation to image width: 'Does the size of the source establish a context or reference for other sources?' [1]. This example illustrates that, in a sample-based context, the phonographic object *does* indeed, and it does so in a stylistically-defining sense: its *poly*-dimensional (not just spatial, but also media-based) staging utterances establish both a functional (mix-architectural) and narrative (communicative of the sonic past) referential canvas, against which the new elements may be positioned.

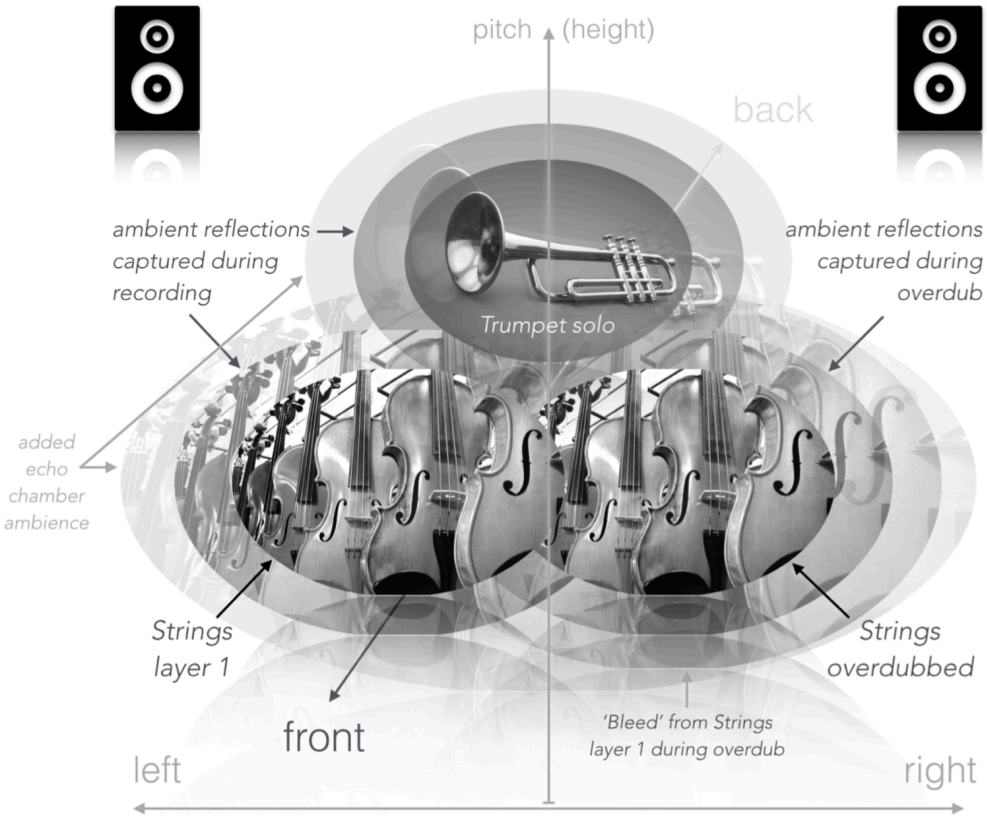
The idea of 'sonic narrative' is used here in Liu-Rosenbaum's sense of the word 'where changes in spatial or timbral qualities of an excerpt could conceivably convey a sense of goal-oriented movement' [7]. It is also worth noting that this particular version of the song sampled from the 1970 release is difficult to source beyond second-hand vinyl, and not readily accessible from streaming or download services. Therefore, it is safe to assume that what we are hearing on 'Sunshine' is a unique sampling occurrence of particular variables (equipment and vinyl record) that have taken place in West's process. As a result, the type of vinyl noise that is audible and the specific rhythm of its manifestation, become unique signifiers of the sampling ephemeron on hand—a processual 'footprint' of sorts. Mark Fisher explains in his article, 'The Metaphysics of Crackle' [21]:

'Crackle unsettles the very distinction between surface and depth, between background and foreground … The surface noise of the sample unsettles the illusion of presence in at least two ways: first, temporally, by alerting us to the fact that what we are listening to is a phonographic revenant; and second, ontologically, by introducing the technical frame, the material pre-condition of the recording, on the level of content … we are witnessing a captured slice of the past irrupting into the present.' (pp. 48-49)

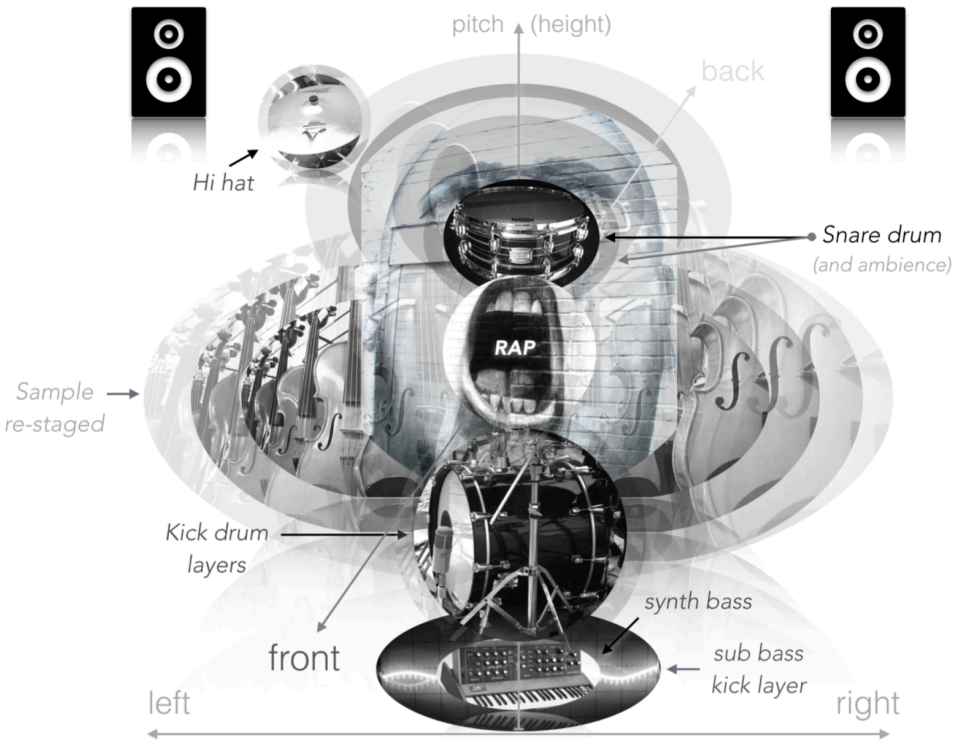
3.2. Depth / Proximity

The case study above demonstrates how the lateral and vertical dimensions of width and height are restaged when a full phonographic master is manipulated in the context of a sample-based composition, and how media-based staging can further 'stamp' and accentuate the narrative ramifications. Of course, relative volume reduction, which often occurs as a result of the source's recontextualization, presents implications also for the depth or distance perception of the sample's position in the new mix architecture. Alongside the control of ambience/reverberation and high frequency content, volume manipulation is one of the three essential mediation strategies that engineers deploy to communicate the proximity of a source (Moore and Dockwray often refer to this dimension as 'prominence' [9, p. 219]. To explore a dedicated case study, Figures 2a and 2b (taken from a recent article entitled 'Sample Magic,' which deals with Hip Hop's unique recipe for phonographic juxtaposition) illustrate the effect of perceived depth on the interaction of sampled and new beat-making elements [22]:

//Figure 2a // POMP5_C_figure02a.jpg



//Figure 2b // POMP5_C_figure02b.jpg



//Caption// (a) A schematic representation of the sonic space occupied by the sample from 'A Theme for L. A.'s Team'. (b) A schematic representation of the exponential staging illusions on track 'Musika'.

The sample in question is 'A Theme for L.A.'s Team' by the Thomas Bell Orchestra featuring Doc Severinsen [23], used as a source within Marley Marl's production 'Musika,' featuring KRS-One [24]. Although the source track's pitch/frequency spectrum is shifted—again—slightly higher, perhaps the most striking effect here is how the rich construction of a multi-layered depth illusion on the original, becomes a discursive feature in Marl' sample-based juxtaposition. Toby Seay provides a fascinating analysis of the textural and spatial characteristics of Philadelphia's Sigma Sound productions, and the sampled track in question subscribes to these [25]. Using Seay's technical findings, the following excerpt from 'Sample Magic' highlights the respective staging interactions [22]:

'…the original recording … carries with it a number of sonic illusions: … superimposed acoustic spaces (echo chamber) upon the actual spaces captured owing to reflections during recording; [and] re-amplified instrumental sections (and their reflections) captured owing to bleed during overdubbing … The strings are very rich in texture as a result of the overdubbing approach, occupying a wide stereo image and implied depth (illusion), which is typical of the Philly sound …

It is difficult to discern whether Marl has added any further reverberation to the sample, therefore superimposing yet another space upon the 1979 spatial illusions, but this—again—is common

sample-based hip-hop practice aiming to ‘glue’ all of the borrowed elements within a new implied ‘stage’. The low-frequency sounds (kick drum, sub-bass and bass synthesizer) come across as completely ‘dry’ … which places them rather ‘forward’ in the staging illusion.’ (p. 44)

For a hip hop song with mystical thematic allusions (KRS-One raps: ‘Marley Marl on the musika, KRS on dem lyrics da / On the side I teach meta-ta-ta-physica‘ [24]), the dynamic discourse taking place on the depth axis of ‘Musica’ indeed suits Reynolds’s characterization of the ‘sample collage’ as ‘the musical art of ghost co-ordination and ghost arrangement’ [26, pp. 313-14]. Marl’s discreet negotiation of the ‘Philly’ sound’s textural and spatial vintage signatures allow him to juxtapose his contemporary sounds (and KRS-One’s rap) against a sonic object that feels like an ‘echo’ of a past perspective—painting, so to speak, his present (pun intended) boom bap sonics against a three-dimensional canvas that communicates the past. Of course, the perception of proximity, distance, or depth is a negotiation of sonic perspective on multiple levels—for example, between listener and source, and between source and other sources. ‘The listener can be … drawn into becoming part of the ‘story’ (music) or observing the ‘story’ (music) from some distance’ [1]. A sample-based composition, however, can additionally carry a story within a story, providing a meta-vantage point so to speak, as it presents the possibility of featuring a record within a record. But how does one go about constructing such staging interactions within newly created source material?

4. (Constructing) Sample-staging in Creative Practice

4.1. The Autonomous Sonic Object

Two practice-based scenarios are reviewed next, where a sample-based composition has been created out of originally produced source/sampling content. Excerpts from the accompanying reflective journal of the process are analyzed as a means to reflexively build upon developing interpretations of the practice. The first practice-based case study concerns the manipulation of a single instrumental element, demonstrating how phonographic processes related to mix staging and mastering help transcend its perceived quality from a mere ‘recording,’ to a ‘record,’ in the context of a sample-based creative process [27]:

‘I came across a grand piano recording I had self-captured about a year ago. I had used two Neumann U 87 [microphones] over the sound holes of the piano and a stereo ribbon AEA R88 Mk2 facing the piano lid from some distance, giving me both a solid, clear stereo image of the instrument, as well as a warmer, mellow room tone that I could blend in to change its staging. Reacting to the source, I quickly reached out for a vintage (spring) reverb emulation and applied it only to the close mics. I was aiming for a more distant tone and I also wanted to make the piano more three-dimensional on the Z [depth] axis … I guess I was making it feel *further away,* both in terms of physical illusion but also conceptually. I was chasing that phonographic ‘otherness’, quite consciously attempting to make it feel more mysterious.’ (emphasis in original)

In terms of creative intent for the piano source, the rationale and process relayed in the excerpt mirror Reynolds’s characterization of the sample-collage as ‘ghostly,’ and the sample in ‘Musika’ as a distinct, three-dimensional sonic object. It is clear that both the recording techniques and the spatial mixing decisions were aimed at creating a sonic object of notable depth and width. The following reflection demonstrates how the sample was ‘distanced’ even further through a series of mastering processes and conscious media-based staging choices [27]:

‘Synchronising the sampling drum machine to the DAW multitrack playing back the piano tracks, I loaded it up with banks of drum samples and sampled vinyl crackle (that I often capture from the end of vinyl LPs). I wanted to distance the piano even further. So, I programmed a combination of vinyl noise samples that made the four-bar piano patterns running in parallel feel like they had

been lifted off vinyl. I scanned the 35-minute recording of the piano improvisation for inspiring moments and decided to give the piano mix itself some 'colour' reminiscent of past recording eras … I applied multitrack tape machine emulation to the individual looping piano subgroups and then ran the full piano mix—including the reverb returns—through a mastering equalizer, a mix-bus compressor, and both master tape recorder and vinyl cutting lathe emulations.'

Two essential strategies can be extracted from this process, which aim at infusing the source 'master' with a phonographic footprint and distancing it enough against new elements within the sample-based context: first, the selection and layering of convincing vinyl-crackle patterns and textures placed over the instrumental source—'there is … no myth without a recording surface which both refers to a (lost) presence and blocks us from attaining it,' writes Fisher; second, the coloring of the 'master' via the simulation of a vintage-informed mixing and mastering signal flow, reminiscent of 'a time when recording technology had developed sufficiently to achieve a kind of sepia effect…' [21, p. 49]. Inevitably, the distancing effect pursued is also related to ideas of perceived authenticity and authority tied to the sample-based aesthetic. Zagorski-Thomas elaborates: 'Playing, sampling and pressing a performance to vinyl as part of the creative process were important statements of authenticity within the Bristol sound of artists'; while for British indie rock in the early to mid-1990s 'the notion of authority stems from … the sound of analogue tape and valve or tube amplifiers … used to *distance* the sound of Oasis … from the sound of the 1980s' (emphasis added) [5].

The first of the two tracks showcased in Video 1 [28] corresponds to the end sample-based artefact built from the piano source production and sonifies the interaction between the 'constructed' sample and the new beat elements. A noteworthy utterance created by the 'chopping' process performed upon the source master highlights yet another important characteristic: at the fourth bar of every A-section four-bar loop repeat, a reverberant, 'ghostly' texture can be heard, rhythmically interrupting the main piano part on the off beats. This is the result of a motif performed on the pads of the sampling drum machine, some of which have inadvertently been assigned with soundbites of just reverb decay, as opposed to actual piano notes or chords. The monophonic, legato-style mode enabled on the sampler (a staple of the boom bap approach—for more on this, see [29, pp. 36-43]) means that moments of fully staged 'architectures' from the piano 'master' are played as if they were notes on a monophonic synthesizer, each new segment muting the previous one still playing. This performing mode—in combination with other programming and swing quantization characteristics unique to particular sampling drum machines (see [29] for more on this as well)—results in striking *staging rhythms*. These could be described as rhythmical shifts between momentary, or at least short, staging architectures 'frozen in time' on the micro-structural level. Holland cites Lacasse to describe the effect in a macro-structural sense [6]:

'In Lacasse's terms, the use of multiple reverberant signatures as the track's narrative develops … are directly related to the piece's structure … the changes in reverberant character function as an example of diachronic contrast, as the various levels of reverberation are experienced relative to others unfolding within the frame of the recording.'

Moylan applies the idea to shifts in lateral imaging, elaborating that 'patterns of locations … and the repetitions and alterations of these patterns can create musical interest just as the patterns of changing pitches, timbres or harmonies' [1]. In that sense, *staging rhythms* become a unique musical utterance in sample-based styles, with a narrative-structural function; but the *diachronic contrasts* unfold on a micro scale and within the time domain of the 'loop'. Of course, the effect can take an exponential character when the juxtaposition of momentary 'stages' involves multiple sources, rather than multiple sections from the same source.

4.2. The Multitrack Sonic Object

The second practice-based case study illustrates the construction of an original multitrack source for subsequent sampling, highlighting a layered, developmental approach to the creation of a number of staging manifestations. The source production in this case has been built by overdubbing acoustic drums, electric bass and guitar, Nord organ, and Fender Rhodes electric piano, followed by the juxtaposition of vocals taken from another source production. A guide beat was also programmed on a sampling drum-machine in sync with the developing multitrack, to enable an ongoing evaluation of the evolving 'samples' within a sense of the end context. The following journal excerpt describes how the instrumental performances were recorded with a range of spatial enhancements and timbral shaping gradually committed. As an archiving strategy, the track/file names used during recording disclose the range of effects—serially—applied [27]:

'A [track] name such as 'Tele Wah Stone 63 55 Neve Tape' indicates, for example, a Telecaster guitar, played through a Cry Baby Wah Wah pedal, into an Electro Harmonix Small Stone phaser, and finally a Boss Fender '63 spring reverb pedal. The remainder of the name relates to software emulations [also committed during tracking, such as]: a Fender '55 Tweed Deluxe amplifier, a Neve Preamp, and a Studer A800 multichannel tape recorder … [Performing through] both the pedal reverb being tracked and an AKG BX 20 spring reverb emulation [used only as foldback] inspired the performance, but I could also envision the *staging* of the guitar in the final mix architecture, whilst making complimentary timbral and musical decisions … I then reached for my Lakland Jazz bass with the LaBella flats [strings] and played very close to the neck (emulating Aston 'Family Man' Barrett's reggae tone). To compliment the resulting tone, I run the signal 'hot' through a tube preamp, boosted the low frequencies slightly, and hit an optical tube compressor followed by a VCA [compressor] shaving off the peaks … [The end result was] tracked through a Studer tape emulation, effectively mimicking a complete classic signal flow for the referenced era.'

The tracking of the guitar and bass highlight the conscious timbre-shaping decisions committed, on the one hand, ensuring a complimentary tone to sonics gradually being recorded (functional aesthetic) and, on the other, communicating stylistic/era signatures of a non-specific, yet vintage quality (narrative aesthetic). A similar approach was deployed when tracking the keyboards, while the vocal parts were recorded with a Shure 520DX 'Green Bullet' microphone slightly saturated through guitar-amplifier and tape-recorder emulations (a typical blues harp recording signal flow). As Zagorski-Thomas explains: 'The other common reason for using media based staging in record production is to evoke the sound of a particular (or more commonly just a vague) historical period' [5]. These creative strategies are consistent with an aspect of Justin William's intertextual argument on musical borrowing in Hip Hop. He points out that we may be moving towards a focus on sampling *stylistic topics*, where 'generic signifiers … become more important than the actual identity of the sample' [12, p. 201]. This argument can extend beyond the musical and the abstract, however, to the materially sonic and concrete, as the following excerpt also illustrates [27]:

'Once I found a one-bar [drums] phrase that was sitting well … I looped it around with all mics active and started mixing it. Auditioning it with and without the beat running in sync, I tried to decide which overheads I should use (I tracked multiple options, so that I could push the drum aesthetic toward different 'eras') … The drums had been recorded through my choice of hardware preamps with some compression and EQ already committed … [I] run a parallel send of the whole drum mix into a pumping VCA compressor, followed by a passive vintage EQ [both emulations]. The highlighted recorded ambience, enhanced air, and tonal glue achieved by the New-York-style parallel layer gave the drums a 'phonographic' quality that was complimentary to the programmed drum hits, providing a sense of 'glue' and achieving that live/non-live fusion that felt stylistically relevant. Taking the beat out, I was surprised by how few of the drum mics I actually needed for

the drum-layering effect to work. I ended up with only the stereo overheads and a little kick support … The overall mix-bus was going through mastering equalization, mix-bus compression, and master tape emulations, [so] I had been reviewing and working on the drum mix with the 'hindsight' of auditioning it in this more finalised (end-format) fashion.'

The journal excerpt indicates that the drums had been recorded prior to the multitrack subscribing to a 'stylistic topic,' using a strategy that deployed multiple microphone choices/techniques, which in turn allowed a degree of sonic-signature shaping flexibility later in the process. The drum production approach demonstrates particular attention paid to expanding the captured ambient characteristics and testing the interaction between the acoustic sonic and the programmed beat. It can be argued that any convincing phonographic sample qualities achieved were the result of the source operating as a blended, yet distinct sonic 'world' or mix architecture contained underneath the beat—courtesy of complimentary staging decisions; shared colorations pertaining to deliberate signal flow choices; a conceptual 'inhabiting' of an aesthetic/era that drove both musical and tonal decisions; and the 'glue' achieved by both tracking and mix-bus processing choices. The mix-buss equalization, compression, and tape emulation gave the underlying master of the recorded performances a tracked-to-a-particular-recording-medium coherence, which both unify it as a mix of performed elements *and* separate it as a phonographic entity from the—new—beat (elements). Figure 3 features a collage of photographs depicting the recording sessions responsible for the production of the constructed 'sample'. The following section discusses its use for, and incorporation into, the second sample-based composition under examination.

//Figure 3 // POMP5_C_figure03.jpg

//Caption// A collage of photographs from the recording sessions responsible for the production of the constructed multitrack 'sample'.

4.3. Exponential Staging in Sample-*creating*-based Hip Hop Practice

In a similar vain to the sampling and chopping processes described for the piano-based production, the beat built out of the multitrack has been constructed by isolating multiple 'staged' moments from the lengthy (approximately 25-minute) blues-funk 'jam' deconstructed above; pitching/slowing down the samples by -1.63 semitones (about 8.25 beats per minute);

rhythmically performing various combinations of the resulting momentary 'masters' using the sampling drum-machine's pads; and further manipulating the segments using the sampler's internal mix functionality. It will be useful to provide some summarized definitions arising from Sewell's sampling typology before proceeding to deconstruct the sample layers used and their sonic interaction within the sample-based production. Sewell categorizes samples according to their structural function in hip hop productions and splits them into:

- 'Percussion-only' structural types containing 'sampled drums [that] are looped throughout the new track;'
- 'intact' structural types that include 'every element from the source material, usually drums and at least one other instrumental line;'
- 'non-percussion' structural types which are 'very similar to an intact structural sample, except that [they do] not contain sampled drums;' and
- 'aggregate' structural types which consist of component 'layers … sampled from different sources' or '*different parts of the same source*' (emphasis added).

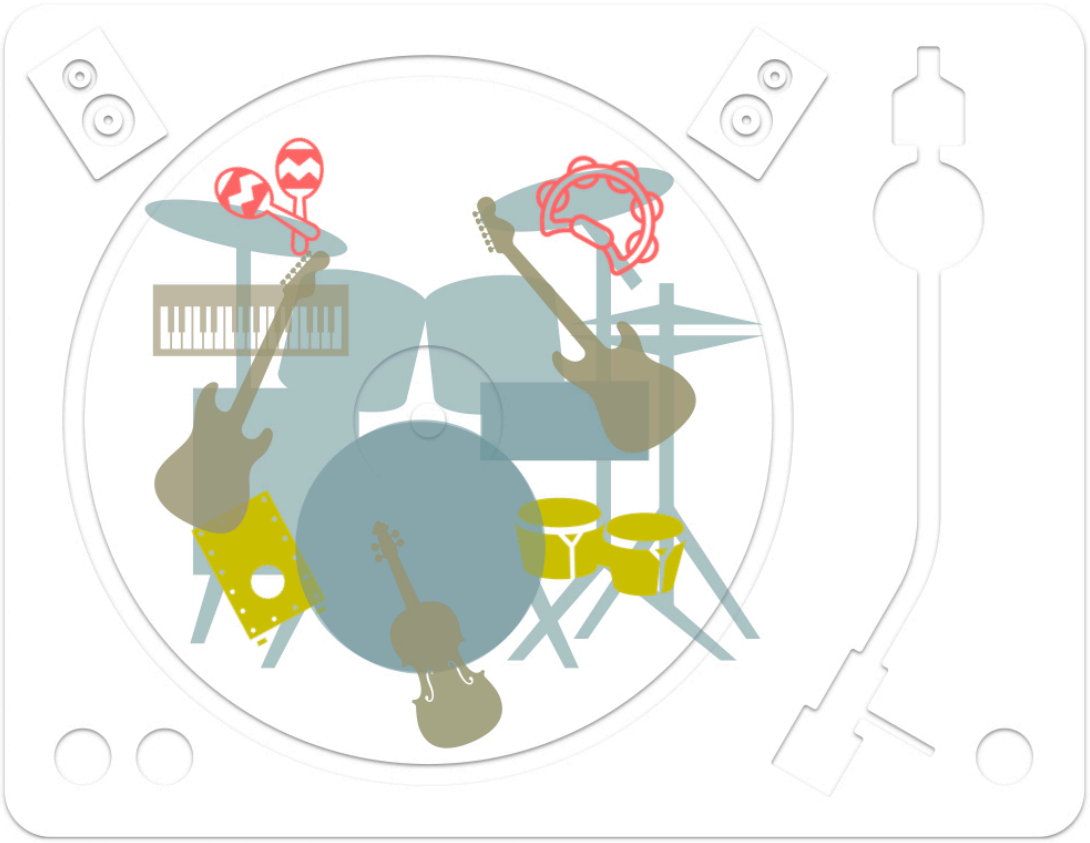
To these, she adds 'surface' and 'lyric' sample types (the former, with further subcategorizations), which have a more intermittent/ornamental layering function and which can be delineated from each other by their intended lyrical intelligibility [13, pp. 36-54].

The final piece's main A, B, and C sections are, thus, created predominantly out of *percussion-only* and *non-percussion* layers, while the breakdown section uses an *aggregate* structure made out of layering multiple component elements sampled from the source multitrack—see Video 1 [28]; the vocal samples could be described as functioning either as a *surface* or *lyric* type. Of course, access to the component layers is ensured by having created the multitrack production oneself, which differs from the possibilities presented by sampling copyrighted, previously-released phonographic material. The rationale behind working with a range of structural types here, is fueled by wanting to test the limitations of access to near-*intact* scenarios, the compositional freedom presented by access to *aggregate* components, but also—importantly—the sonic implications of either approach. As DJ Bobcat explains in Sewell: 'A lot of times when somebody samples a bass and a guitar riff or a horn from the same song, it's because sonically they're the same. They're taking it because they already sound the same' [13, p. 44]. But could this sonic 'sameness' be further unpacked and is it the result of an underlying 'staging harmony' (i.e. a spatial architecture to which all the component layers adhere, even when isolated)? To illustrate the underlying architecture, Figure 4a schematically represents the staging of the multitrack used as the foundation for section A of the sample-based production. Figure 4b represents four component layers extracted from different sections of the source multitrack (but retaining their staging placements): a non-percussion layer that includes Rhodes piano, bass, lead and rhythm guitar (top left); and three percussion-only groupings of cajon-and-bongos (top right), shaker-and-tambourine (bottom left), and drums (bottom right). Note that under the representation of each layer there are opacities overlaid of the missing instruments' positions in the implied mix architecture (illustrating the staging 'harmony').

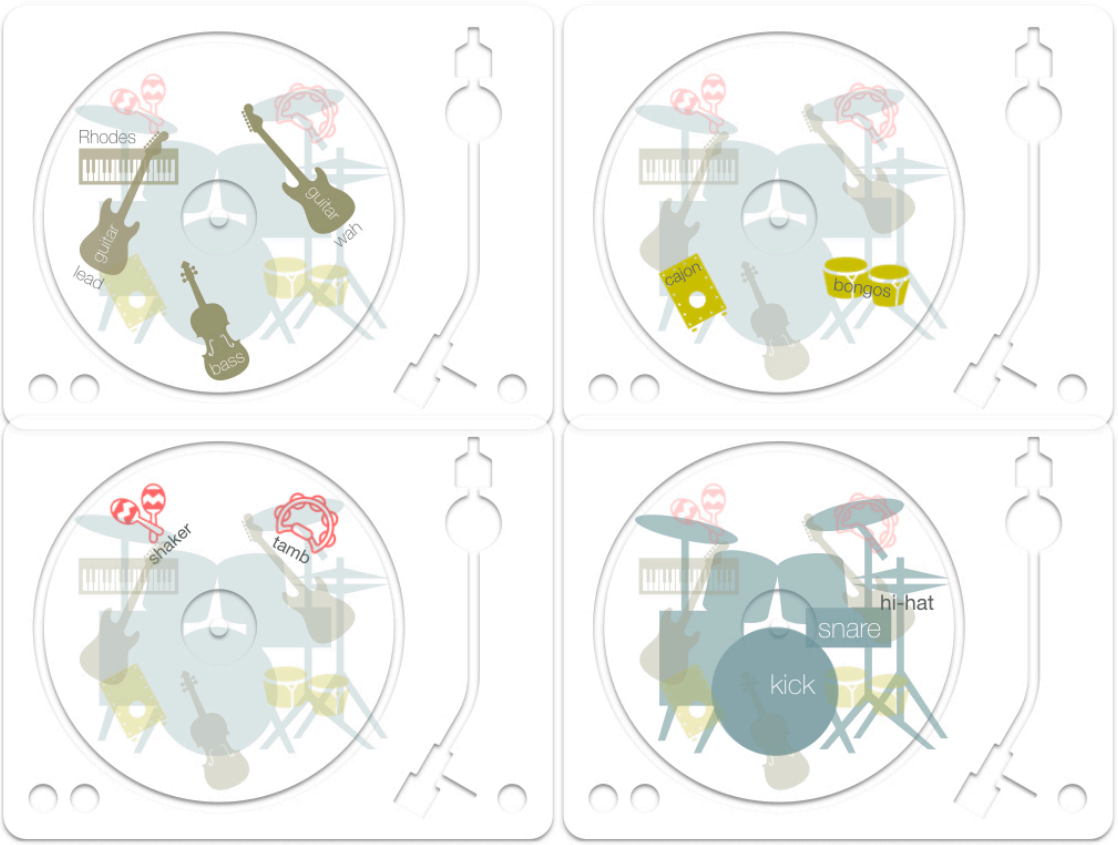
In order to reinforce the bass part, a matching bass-only layer has also been 'chopped,' equalized, and layered beneath the resulting structure. The perceived effect is of a louder and more prominent bass placement in the main non-percussion layer (the isolated bass layer enables separate equalization and therefore a complimentary reinforcement of the otherwise harder to access bass sonic in the almost intact, non-percussion layer). During the last (eighth) bar of every A-section, two two-beat non-percussion segments (equivalent to the main non-percussion layer in terms of included elements, but with added organ parts—the latter of which features a glissando) interrupt the main layer on beats one and three to provide a variation and climax (using the sampler's monophonic mode, as in the piano example). Figure 4c represents the resulting aggregate structure, as well as the vocal sample juxtaposition, plus the new beat additions (kick

drum, snare drum, and hi-hat). Note the sepia color added representing the vinyl crackle that has been layered over the aggregate structure. Additionally, the cajon-and-bongos percussion-only layer has been shifted in terms of lateral imaging, while the arrow pointing down from the new snare toward the sampled drums' snare represents side-chain compression dialed in to reduce the latter's volume on every new snare hit—the strategy aiming at both a balancing *and* rhythmic interaction between the percussive elements, thus creating complementarity between two initially unrelated samples/drum sonics. A more dynamic visual representation of the staging phenomena is showcased in Video 1 [28]. Finally, the breakdown section is based on an aggregate structure made exclusively out of component layers, which also include individual Rhodes and lead guitar samples (pitched approximately ten semitones up from the original, which results in an octave interval over the aggregate structure, and twice the tempo).

//Figure 4a // POMP5_C_figure04a.jpg



//Figure 4b // POMP5_C_figure04b.jpg



//Figure 4c // POMP5_C_figure04c.jpg

//Caption// (a) A schematic representation of the staging of the multitrack used as the foundation for section A of the sample-based production. (b) A schematic representation of the four component layers extracted from different sections of the source multitrack: a non-percussion layer that includes Rhodes piano, bass, lead and rhythm guitar (top left); and three percussion-only groupings of cajon-and-bongos (top right), shaker-and-tambourine (bottom left), and drums (bottom right). Note that under each layer's representation there are opacities overlaid of the missing instruments' positions in the implied, original mix architecture. (c) A schematic representation of the resulting aggregate structure, plus the new beat additions: the sepia color added represents the vinyl crackle that has been layered over the aggregate structure; the cajon-and-bongos percussion-only layer has been shifted to the right in terms of lateral imaging, while the arrow pointing down from the new snare and toward the sampled drums' snare represents side-chain compression applied upon the drum layer.

The aggregate way of working facilitates a refined (re)staging strategy for the component layers. In a sense, the already staged individual, non-percussion, or percussion-only layers are (re)mixed as elements within the sampler's mixing environment. For example, four send effects are deployed (short and long reverb, synced tape delay, and a parallel VCA compressor), which allow sharing/groupings of ambient spaces, mutual rhythmic effects, and common dynamic movement. A number of layers are also individually balanced, equalized/filtered, and compressed to negotiate the available 'space' more effectively in the resulting sample-based stage.

The intact structural approach—which is more representative of phonographic sampling as with West's and Marl's examples analyzed—implies a committed stage that can only be renegotiated through a form of (re)mastering within the sample-based context. Most pragmatic sample-based creative scenarios fall somewhere between the intact and the aggregate extremes. The added layers (drum hits, etc.) have to interact in a congruent sense in terms of spectra, depth, and width against the three-dimensional frame(s) presented by intact, percussive, or near-intact samples. One of the methods for enhancing this interaction is by integrating side-chain and parallel dynamic processing between the samples, the overall mix, and additional beat elements (a strategy indeed championed in this production: a compressor inserted on the overall sampler mix is triggered by the new kick drum sample, while multiple elements are routed to the sampler's parallel VCA-style compression bus). The artform's balance hangs in the tightrope between contrast communicated by previously-constructed and new elements, and integration achieved through spatial, timbral, rhythmical, and dynamic re-contextualization.

5. Conclusions

The chapter has illustrated staging mechanics in sample-based hip hop phenomena across a spectrum of creative contexts: from phonographic sampling utilizing full, previously-released master segments, through to sample-*creating*-based practices that—via extended access to multitrack elements—facilitate a multi-layered approach to the shaping, control, and manipulation of the source's staging dimensions. At the heart of the process, lies a sonic object that carries an extended mix architecture, with the potential to not only provide raw sonic content for this form of material composition (sample-based Hip Hop), but also a poly-dimensional referential canvas that can communicate narrative notions, such as representations of the past, diachronic contrasts, and striking genre-defining utterances such as syncopated *staging rhythms*. These perceptual effects depend on the construction of convincing spatial and media-based staging artefacts for the hip hop practitioner creating their own source material; and these, in turn, translate to phonographic signatures contributing to an authentic sample-based footprint. It can be deduced that the essential aesthetic of sample-based music forms—and the key differentiation between a sonic element and a *sample* at the heart of their processes—can be traced in this interaction with staged sonic objects carrying *markers of phonographic process*. It is a manifestation of a phonographic process interacting with previously (even if very recently) committed phonographic processes. This kind of layering can, therefore, become exponential, and sample-based music forms deal not with mixing elements, but with mixing and manipulating full 'masters'.

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