Musical Rhythm in the Age of Digital Reproduction

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Chapter 10
Opaque Mediation:
The Cut-and-Paste Groove in DJ Food’s ‘Break’

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The electronica artist and DJ Kid Simius once said to me, ‘If the cut-and-paste tool was a woman, I would marry her’.¹ This affection for this tool in digital music editing software is grounded in an aesthetic in which mediating technology is exposed to listeners so that processing effects and editing tools actually create something new instead of merely polishing what already is. Ever since the invention of audio recording, or at least the microphone, there have been different approaches to the production process in the studio. One approach has been to ‘document’ sound, or give the impression of capturing an actual performance. The other approach has been to foreground the ubiquitous mediating technology involved with the recording process by using its tools to specific aesthetic effect. The latter, favored by Kid Simius, makes no attempt to simulate a musically ‘live’ situation; instead, it leaves distinctive inscriptions of its own on the sound. A listener’s focus is thus not only directed toward what is mediated but also toward the act of mediation itself. I call this particular aesthetic ‘opaque mediation’ to highlight the degree of exposure of the relevant mediating technology, as opposed to ‘transparent mediation’, in which the ideal is a use of mediating technology that the listener can completely ignore.²

There is little in the way of literature concerning these approaches to recording. Scholars have also seldom explored the aesthetic effect of the deliberate exposure of mediating technology, though it is occasionally acknowledged in passing. In this essay I will introduce a theoretical framework for these approaches through an analysis of grooves in which opaque mediation represents an aesthetic ideal. There are many forms of opaque mediation, including the direct exposure of editing tools or processing effects, the ‘musical’ use of technological glitches or side effects and the obvious deployment of samples. Here I will concentrate upon means of exposing one’s use of the digital cut-and-paste tool, and how

¹ Personal e-mail to author from Kid Simius (Jose Antonio Garcia Soler), 26 August 2008 (Although Kid Simius was at the time unaware of it, this expression recalls Gang Starr’s ‘Step in the Arena’, where Guru raps: ‘If a beat was a princess, I would marry it’).
² Thomas Porcello describes this production ideal in ‘Music Mediated as Live in Austin: Sound, Technology, and Recording Practice’: because live performance is the source of the Austin sound, it is sought in the studio as well (Porcello 2005, 104-5).
this act in turn shapes the music. First, I will elaborate upon opaque versus transparent mediation. I will then explore the former as an aesthetic ideal through the work of artists who have exposed the cut-and-paste tool in different ways. Finally, I will analyse ‘Break’ (*Kaleidoscope*, Ninja Tune 2000) by the collaborative electronica team DJ Food, where the use of the cut-and-paste tool results in a distinctive staccato effect and a ‘partitioned’ groove that manages to sound both disjointed and coherent at once. The foregrounding of mediating technology is an important aspect of the overall musical design of the piece, and the opacity of mediation can thus be seen as an aesthetic ideal.

**Opaque and Transparent Mediation**

The etymology of the verb ‘to mediate’ can be traced back to the late Latin verb *mediatus*, which means ‘placed in the middle’. The Oxford Dictionary of English defines the verb as either meaning to ‘intervene in a dispute in order to bring about an agreement or reconciliation’ or, in a technical sense, to ‘be a means of conveying’; ‘form a link between’. The latter definition is at issue here; mediation being the link that transmits something from a source to a receiver, or from one place to another. This ‘something’ can either be abstract information, such as semantic meanings or values, or it can be physical units, such as sound. When discussing the mediating technology involved in music productions, the term is broadly used to signify the process behind conveying sounds from the source to the receiver, or from one place to another. To delimit the term further, I have categorised the mediating process used in sound recording into four stages: (1) the initial mediation of aural raw material (the voice/human body, traditional instruments, samplers, software instruments, drum machines, etc.); (2) the mediation used to record and edit or process sounds (microphones, amplifiers, mixing console, editing tools, processing effects, etc.); (3) phonograms and media formats (LP, CD, MD, DAT, MP3, radio, etc.); (4) the medium of distribution (format readers and senders, amplifiers, cables, speakers, the listening context, etc.) (see also Brøvig-Andersen 2007, 108–10). These analytical classifications are not absolute and in fact often overlap, but it is at least helpful to note that opaque mediation in this context falls within the second category above.

The concepts of opaque and transparent mediation draw upon ‘Opacity and Transparence in Pictorial Representation’ (1991) and ‘Mimesis and Description’ (2001

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3 Cut-and-paste can also refer to the use of physical scissors on tape, but in this chapter I am exclusively referring to the tool of digital music editing software.

by the French philosopher Louis Marin.\(^5\) In these articles, Marin discusses the dual dimension of representation in paintings and semiotics, proposing that ‘to represent’ in fact means to present oneself as representing something else.\(^6\) He points to the definition of ‘to represent’ (représenter) in Furetière’s late-seventeenth-century dictionary, observing:

To represent signifies on the one hand to substitute a present entity for an absent one ... a substitution that turns out to be regulated ... by a mimetic economy: it is the postulated similarity between the present entity and the absent one that authorizes the act of substitution. But there is another meaning according to which to represent signifies to exhibit, to show, to insist, to present: in a word, a presence. Thus the very act of presenting is the act that constructs the identity of what is represented, what identifies it. On the one hand, a mimetic operation ensures the functioning, the function, indeed the functionality of a present entity instead of an absent one. On the other hand, a specularity, a self-presentation constitutes an identity, a self-identification ensures a legitimate value of beauty. (Marin 2001, 256)

The definition in Furetière’s dictionary draws attention to the dual dimensional nature of representation. Marin calls these two dimensions ‘transitive’ and ‘reflexive’. The former is the condition of representing something else, while the latter is the representation’s self-presentation (Marin 1991, 64). The reflexive dimension may appear more or less opaque (or more or less transparent), but it is never absent. The opacity of representation ‘means the various ways in which pictorial representation presents itself while representing something else, the various modes of its self-presentation’ (Marin 1991, 66). The transparence of representation means, on the other hand, that the self-presentation is ‘at the same time present and absent’ (Marin 1991, 57). He explains this dual effect with a metaphor:

To be at the same time present and absent is a good visual and conceptual definition of a transparent thing, a glass pane through which I look at the landscape beyond. If there are scratches on it, or stains or blotches, I suddenly see the window pane instead of the garden, its lawn and its trees. (Marin 1991, 57)

When defining representation, Furetière, as well as Marin (see Marin 1991, 59–60), rely on the so-called ‘substitution theory’, also used by Franklin R. Ankersmit, Hans-Georg Gadamer and Arthur Danto, among others. The tenor of the substitution theory is that the representation and its referent are categorically different. This means that the representation of the represented is always manifested as a sign, a substitute for something absent. This is, however, not always the case with mediation. As mentioned earlier, mediation as the act of

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\(^5\) Louis Marin (1931–85) is known for his works in the fields of philosophy, linguistics, semiotics, rhetoric, literary theory, theology, anthropology, art and institutional history.

\(^6\) Marin is not the first to take up the issue of a representation’s self-presentation, but his work is particularly appropriate here because of the way he coins the concepts ‘opacity’ and ‘transparence’, and because he relates his discussion to art.
conveying something from a source to a receiver, or from one place to another, can either be understood as the act of conveying abstract information or the act of conveying physical units. Accordingly, representation corresponds to mediation as the act of conveying abstract information, since this form of mediation is dependent on signs. Mediation of physical units, such as sound, cannot, on the other hand, be called a representation, since what is mediated is presented itself; there are no substitutions and thus no signs. Nonetheless, the dual dimension of representation might also be seen to characterise musical mediation of sounds: mediated music is always the sum of (1) its original sounds (something is mediated) and (2) the material traces of the mediation’s self-presentation. In stating this as fact, I differ with Friedrich Kittler, who claims that with the advent of the digital medium, the material aspect of mediation has in fact disappeared (Kittler 1999, 1–2). This statement reflects the widespread view of digital mediation as neutral or objective toward sounds, but I believe that its (frequent) transparency should not be mistaken for absence. Moreover, mediation always adds new qualities to sounds in a more or less audible way. This argument is supported by the fact that a listener’s sense of a particular act of mediation as transparent or opaque varies over time, place and musical genre. Since it always has a materiality that can be described, it has both a transitive and a reflexive dimension. If mediation did not have a transitive dimension, it would not in fact be mediation, since the term itself necessarily implies that something is being conveyed. Similarly, to say that mediation has no reflexive dimension would be to deny that it transforms or adds new qualities to the sounds. However, during the production process the ideal might consist of making the reflexive dimension appear more or less transparent or opaque. If the goal is the former (transparent mediation), one seeks sameness between what is presented and the medium’s self-presentation (as when one seeks to present recorded events as live). If the goal is the latter (opaque mediation), one seeks difference (or heterogeneity) between the two dimensions (as when the mediating technology is exposed). Marin describes this heterogeneity as ‘a represented figure which plays two roles and performs two functions, the first one in the “story”, the second one in the very process of narrating the story, of conceiving and producing it’ (Marin 1999, 62).

In summary, mediation always leaves a signature (its self-presentation) during the act of conveying. Consequently, the mediating process will always be a transformational process, not a neutral transition of sounds. Mediated sounds are in other words always manipulated, but in a more or less audible way; the mediation always presents itself, but its self-presentation is more or less evident. It is therefore more convenient and exacting to talk about the perceptibility of mediation rather than how much technology is involved. In this way the
concepts of opaque and transparent mediation can help clarify the difference between the involvement of mediation in a technical sense and the involvement of mediation perceived as mediation.

It is important to emphasise that opaque and transparent mediation comprise what Max Weber calls ‘ideal types’; analytical poles between which ‘real life’ presents many intermediate positions. As Weber points out, ideal types cannot be traced as pure form in real life. Nevertheless, we can only conceive reality through a chain of inconsistent ideas, interfaces or shorthand concepts. Accordingly, such ideal types can be pragmatically applied as tools or means for understanding reality when compared to empirical experiences (Weber 1922, 146–214). The analytical categorisation of mediation as transparent and opaque can therefore be pertinent, even though the categories are problematic and inconsistent compared to an empirical reality of variations and antagonisms. Put differently, these concepts simply expose the information we ourselves invest in understanding our empirical experiences. Opaque and transparent mediation, then, describe rather than define reality and must therefore neither be understood as entirely different from or in opposition to one another. What one listener perceives as more or less opaque, another will perceive as transparent. A listener’s sense of a particular act of mediation as transparent or opaque also varies over time, place and musical genre. According to Joseph Auner, people have a tendency to ignore the technological limitations of the current medium (a narrow frequency spectrum, or hiss and crackle, for example) until another one replaces it, when we begin to notice the opacity of what we once took for transparent: ‘But when technology is replaced the limitations come to the fore; the veil of transparency is lifted and we are forced to start listening to the accent as all the repressed characteristics of the old emerge with shocking clarity’ (Auner 2000). The vinyl noise of the analog medium has, for instance, become more detectable since the advent of the digital medium’s ‘silence’. In the same way, what is initially perceived as opaque mediation can later be taken for transparent. For instance, when vocalists first started to use the microphone as an instrument, experimenting with different techniques and developing new singing styles (such as the intimate singing style called ‘crooning’), listeners saw the microphone-staged voice as opaque mediation, whereas today it has become a defining trait of the voice and is thus (more or less) transparent.

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7 Ideal types draw upon Kant’s theory of concepts, in which their construction is not a goal in itself, but is of methodological interest for acquiring knowledge about specific empirical relations (Weber 1922 [1904], 146–214).
‘Break’ by DJ Food: Opaque Mediation as Musical Design

The ability to cut and paste recorded material with scissors accompanied the development of magnetic tape, and right away it was used for a variety of purposes. Most often the tool helped producers make records that were free of flaws. Some people took a more experimental approach, however, such as adherents to the movement of musique concrète, represented by Pierre Schaeffer. The digital cut-and-paste tool is the same: in the service of transparent mediation, it can be used to cut off unwanted sounds or cut out a sequence within one take and paste it together with a sequence from another take to make things sound better. These are typically discreet, even hidden operations. In the service of opaque mediation, however, this work becomes much more obvious.

In the following discussion, I will analyse ‘Break’ by DJ Food, in which the foregrounding of cut-and-paste (opaque mediation) contributes significantly to the music’s appeal. The graphical analysis of sound signal amplitudes in a sequencer programme will support my auditory analysis of how the cut-and-paste tool contributes to the rhythm and ‘sound’ of the groove. ‘Break’ is a cut-and-paste montage of sound clips and spaces in which the signal drops out. The clips include a talking-rapping vocal, a simple drumbeat, a piano riff of jazz chords and some atmospheric sounds. The voice is sampled from Lightnin’ Rod’s ‘The Break Was So Loud, It Hushed the Crowd’ (Hustler’s Convention, Fuel 2000, 1973).

While any sample from this rap pioneer will carry many political and cultural associations, its sound quality alone is also tremendously compelling. Though it is manipulated to a great extent, Lightnin’ Rod’s voice, accompanied only by some background sounds of billiard balls in action, carries the day. In the original song, Lightnin’ Rod performs the lyrics rhythmically but varies the tempo. In ‘Break’ the sample is chopped up among inserted dropouts, slowing the performance and evening it out rhythmically. This abrupt rhythm evokes the ‘electric boogie’ dance, in which the dancers freeze and then flow in succession.

The representation below (see Figure 11.1) presents the vocal rhythm in the first four bars; the pauses indicate dropouts.

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8 Originally, DJ Food consisted of the English duo of Matt Black and Jonathan More (Coldcut). The concept of their albums was to feed DJs musical ‘food’, hence the name. Gradually the music developed into being more than merely ‘food’ for DJs (which ‘Break’ demonstrates), and the group became a loose collaborative team with many members; on Kaleidoscope they included PC (Patrick Carpenter) and Stricktly Kev (Kevin Foakes), in addition to guest performers, producers and collaborators.

9 Lightnin’ Rod (Jalaluddin Mansur Nuriddin/Alafia Pudim) is a former member of the Last Poets – pioneers of rap in hip-hop music. In Hustler’s Convention, Lightnin’ Rod performs his poetry to the music of Kool & the Gang.
The vocal rhythm in the first four bars of ‘Break’; the pauses represent dropouts

The notational representation above might seem unwieldy because of the many pauses. In transcriptions of popular music there is a tendency to replace smaller pause units with larger note units to make it more readable. However, this often gives the wrong impression – the pauses and dropouts are every bit as important as the sounded notes. As Danielsen points out in *Presence and Pleasure: The Funk Grooves of James Brown and Parliament* (2006), where a sound ends is as important as where it starts: ‘The gaps between the sounds create the groove as much as the sounds themselves do’ (Danielsen 2006, 54). Danielsen also quotes John Miller Chernoff from *African Rhythm and African Sensibility* (1979): ‘The music is perhaps best considered as an arrangement of gaps where one may add rhythm, rather than as a dense pattern of sound’ (Chernoff 1979, 113–14). Danielsen and Chernoff refer to traditional pauses, but dropouts likewise contribute to the rhythm with as much energy and force as the sounds do. The dropouts in ‘Break’ never fall on the four beats within the measures, though they do correspond to a strict metronomic grid of reference that maintains the groove despite the silences. As listeners grow accustomed to the constant alternation between dropouts and sound clips, the music begins to activate their musical expectations in this regard, expecting sound to succeed silence and vice versa. These expectations contribute in retaining the perceived flow and forward movement of the halting groove.

By comparing amplitude graphs of the original vocal performance and its sampling in ‘Break’, I can tell where the track is chopped up, which sequences are copied and how they have been pasted back together. The upper track in Figure 11.2 represents the first seven bars of ‘Break’ following the introduction. The lower track shows the original sequence of the sampled voice. In the middle I attempt to reconstruct the act of cutting and pasting it.
Figure 10.1 Samples of amplitude graphs of (1) ‘Break’ by DJ Food, (2) ‘The Break Was So Loud, It Hushed the Crowd’ by Lightnin’ Rod and (3) a reconstruction of the manipulation of the vocal sample in ‘Break’

Though the vocal sequence is in fact the same in each of the tracks, the ‘Break’ amplitude graph also reflects the drum track. In addition, the sample is compressed further here, while the voice’s pitch is lowered, which results in a time stretch. Nonetheless, these manipulations are easy to recognise.

The first verse of ‘Break’, as mentioned, consists of the voice accompanied by drums. During these eight measures, the drum pattern is simple, and most of its rhythm falls at the same beats as the vocal. The words are delivered as follows:

\[
\text{The break— was so— loud<—that— it— hushed— the— crowd—}
\]

\[
\text{They all— grew— quiet— and still—.}^{10}
\]

The dashes mark places where the sample is cut and separated by an inserted dropout. The sample is also cut between the words ‘loud’ and ‘that’, but in this instance the words are joined rather than broken apart. It is important to note that an unmanipulated sound consists of ‘attack’ (the sound’s onset), ‘decay’ (from the attack to the sustain), ‘sustain’/‘steady state’ (the middle section of a sound) and ‘release’ (the sound’s offset or fadeout). More specifically, an attack consists of amplitudes that rise from zero to a peak. In the second sentence here, the complete attack on the word ‘they’ is cut off, so it sounds like ‘ey’. On the word ‘quiet’, only the amplitudes before the peak of the attack are cut off. Thus, since the rising amplitudes of the attack are missing, the peak comes abruptly, resulting in a sharp, ‘edgy’ consonant that demonstrates the effect of the cut-and-paste tool on sound as well as rhythm. A straightforward, unmediated performance of the lyrics would obviously be very different from the vocal constellation presented in ‘Break’, which chops up the lyrics into a staccato musical form while removing the natural resonance following the decay of a sound.

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\(^{10}\) The text is not printed in the record sleeve or on their website (www.djfood.org), and is therefore transcribed by the author.
‘Still’ is the only word in these two sentences that dies out normally, with a comparatively distinct and lengthy resonance.

The next two sentences in the first verse are as follows:

\[ \text{Had <> sunk – the – one – and thus – be ... – ... gun –} \]

\[ \text{The test – of m ... – my – poo-o-o ... – ... boom-m-m-m skill} \]

The first word and the beginning of the next word have been cut off (indicated here by a strikethrough). The word ‘begun’ is chopped in two and separated by a dropout. ‘Of’ is also cut off and replaced by the ‘m’ from the next word, creating a stuttering effect: ‘m–my’. Likewise, in ‘poolroom’ the ‘o’ and the ‘m’ are chopped up, copied and pasted consecutively. The word has also been split and the letters ‘lr’ cut off. The dropouts in this first verse, incidentally, differ from traditional musical pauses in that they are generally complete digital silence, without any form of atmospheric noise or ‘dead air’ (with the exception of the three places where the drums are playing too). This contributes to the impression that parts of the sound signal are missing altogether.

After this verse of eight bars, there is an interlude of sixteen bars consisting of drums and piano that perpetuates the staccato vocal rhythm but without dropouts. Whereas dropouts silence their sounds very abruptly (‘too soon’, in effect), traditional pauses allow sounds to die out first.\footnote{11 While dropouts often consist of digital silence, this is not a defining feature; one can also cut an analog tape and insert a blank sequence of tape within it, and those sequences always leave some hum and crackle behind. Moreover, other instruments can sound simultaneously as dropouts.} In the interlude, the sounds of the piano and drums do not end abruptly but are allowed to resonate (this is particularly obvious with the piano). Yet the rhythm of the interlude is in the same style as the rhythm of the verses, and it is likely that the arrangement is inspired by the cut-and-paste technique.

In the second verse, the drums become more active while the piano continues to accompany the voice. Unlike the first verse, the drums and the piano at this point often sound during the dropouts, whether as played notes or as a decaying resonance. The first two sentences in the second verse are performed as follows:

\[ \text{I put – in-n-n-n – this on – the – cue –, then – d-d-d-dropped – the – two –} \]

\[ \text{To <> sank – the – three – and the f-f-f-f-four –} \]

Here are several more instances of words whose attacks or decays are partly cut off, words that are left out and natural spaces that are shortened. As in the first verse, the sentences here are chopped up into a staccato rhythm with dropouts between several of the clips. The technique of cutting, copying and pasting one letter consecutively also occurs frequently here: the ‘n’ in the word ‘in’, the ‘d’ in ‘dropped’ and the ‘f’ in ‘four’. Contrary to ‘m–my’ in the
first verse, where the copying of the letter results in a stuttering effect, these repeating letters result in a percussive drumroll effect, because the clips are much shorter and more numerous. The ‘f’ in the word ‘four’ is pasted consecutively with such short intervals between soundings, in fact, the cut-and-paste tool starts to make sound itself in form of clicks (a characteristic feature of electronica).

I will conclude my analysis by discussing the two last sentences in the second verse:

Continued - my- drive- by bagg . . . . ing the- five-
Was- ‘spoon’\(^{12}\), kept- track- of- the- sc . . . . ore

Here dropouts split the words ‘bagging’ and ‘score’, and several other sounds have been cut off. When I transcribed this text from ‘Break’ before I heard the original version, I interpreted these two sentences as ‘they took my drive / by bagging the five / was ‘spoon’, get back to the score’. Certainly the cutting between or within words can obscure texts while suggesting new words and new meanings, possibly to confuse listeners or otherwise activate their interpretive skills. Paul Harkins describes the latter intention in the music of Todd Edwards: ‘Dem 2 shared Edwards’ enthusiasm for confusing listeners with a cut up technique that results in infectious lyrics that make little sense or are extremely difficult to understand’ (Harkins 2007, 12). Whatever the artist’s intent when cutting and pasting vocals, it is apparent that the sound and rhythm of the voice carry at least as much weight as the semantic meaning of the text.

Yet the voice is, to a greater extent than other instruments and sounds in a song, a vehicle for personal expression,\(^{13}\) and we are therefore particularly sensitive to manipulations of it. In ‘Art Versus Technology: The Strange Case of Popular Music’ (1986), Simon Frith notes our tendency to view technological manipulation in rock music as a barrier to personal expression:

The continuing core of rock ideology is that raw sounds are more authentically than cooked sounds.

This is a paradoxical belief for a technologically sophisticated medium and rests on an old-fashioned model of direct communication – A plays to B and the less technology lies between them the closer they are, the more honest their relationship and the fewer the opportunities for manipulation and falsehood. (Frith 1986,266–67)

When the voice is manipulated to a significant degree as in ‘Break’, then, its role changes from vehicle for personal expression to straightforward musical element. The voice is no longer even attempted to be presented as natural or unmanipulated; in Theodore Gracyk’s

\(^{12}\) ‘Spoon’ is my best approximation of the sound of the word, which I cannot otherwise make out.

\(^{13}\) This is not to say that an artist’s performance corresponds to his or her inner or actual life; it can correspond to a constructed personal expression (see Barthes 1977; Frith 1986 and Danielsen 1998).
words, it is as if the voice says: “Look at me!” I’m a mediated act of communication!” (Gracyk 1996, 79).

The vocal clip in ‘Break’ is taken from a story about a game of pool, where ‘break’ in fact refers to the initial scattering of balls at the beginning of the game. DJ Food probably also uses the word to refer to the breaks (dropouts) between the sound clips. While traditional pauses are considered part of a song, dropouts are considered an absence within it; they do not belong to the song initially but are instead introduced afterward. This recalls the relation of ‘textual silence’ to ‘medium silence’ discussed in Danielsen and Maasø 2009: the former is part of the written or performed work, while the latter is caused by an error in the medium (Danielsen and Maasø 2009, 129–32). Even if we understand the dropouts to be missing parts of the sound signal, we want them to be part of the composition (we know that they are meant to be there). This results in an ambiguity: the dropouts are at once a musical play with unmusical elements and musical elements in their own right. Groove can be understood as the interaction between sounds and traditional pauses. Dropouts are, on the other hand, neither one. Consequently, as listeners grow accustomed to the extensive use of the cut-and-paste tool, the concept of ‘groove’ itself is likely to be extended from sounds and traditional pauses to dropouts as well.

**Cut-and-Paste Grooves**

‘Break’ demonstrates that the cut-and-paste tool is used as a compositional tool as well as an editing tool. The electronica genre also features many examples of other ways of using the tool, resulting in a variety of aesthetic effects. In his controversial *The Grey Album* (bootleg 2004), Danger Mouse (Brian Burton) mashes up Jay-Z’s rap vocals from *The Black Album* (Roc-A-Fella/Island Def Jam 2003) with the instrumentation from the Beatles’ so-called ‘white album’ (Capitol 1968).\(^\text{14}\) The sampled material from the Beatles is manipulated thoroughly, whereas Jay-Z’s vocals are left untouched. It is an aggressive piece of work in several respects. First of all, Danger Mouse failed to seek permission for the Beatles samples. (Copyright holder for the Beatles, EMI, eventually required the distribution of the album to cease. However, it had already leaked onto the Internet and is today considered legendary) (see, for example, Kembrew McLeod 2005 and Michael D. Ayer 2006). The project also introduces complex political and racial issues: Is his manipulation of the musical material done to mock or pay tribute to the artists whose music he is sampling? Is his combination of

\(^{14}\) In the end of 2003, an a cappella version of Jay-Z’s *The Black Album* was released as an invitation to professional and amateur DJs, musicians and producers to remix his songs. This is why the vocal tracks on *The Grey Album* have no attached sounds from the original production.
British rock/pop from the 60s and contemporary hip hop a conscious act toward or against a still present taste hierarchy? Is his juxtaposition of a white British band and a black African-American artist a racial statement of some sort? Or is the album a protest against the commercial music industry’s desperate attempts to control ownership rights? These questions will have to remain unanswered for the time being; here Danger Mouse’s use of cut-and-paste will be the focus of my attention.

The song ‘Dirt Off Your Shoulder’ relies on a heavily manipulated guitar riff consisting of very short, chopped-up sound clips from the Beatles song ‘Julia’, combined with chopped-up sequences of drum sounds also from the ‘White Album’ and Jay-Z’s rap vocals from his own ‘Dirt Off Your Shoulder’. The distinctive guitar sounds of each clip are recombined into a melody that is not in either, structured in an equally unfamiliar rhythmic pattern. In addition, the clips consist of both bass and rhythm guitars. The juxtaposition of the different samples from ‘Julia’ charts a harmonically incoherent course beneath the guitar line. Each of the juxtaposed sound clips is panned so as to occupy different spaces in the stereo field, resulting in a feeling of stereo-jumping (sounds switching from one speaker to the other), which contributes further to our impression of the music as chopped-up and harshly juxtaposed.

Many listeners, including myself, find The Grey Album by Danger Mouse aesthetically agreeable. When EMI required Danger Mouse to withdraw the album, the activist organization Downhill Battle\(^\text{15}\) protested by arranging a campaign on 24 February 2004, known as ‘Grey Tuesday’. On that day approximately 170 web pages offered a free download of the album, and it has since been downloaded over a million times. In addition to its political agenda, this act demonstrates something about the album’s enormous, if subversive, appeal.

A different approach to the cut-and-paste tool appears in Squarepusher’s ‘My Red Hot Car’ (Go Plastic, Warp 2001). Squarepusher (Tom Jenkinson) uses the tool on a micro-rhythmic level, chopping his own music up into very short clips, then pasting the clips together into identical repeating cells. Sometimes the intervals between the cells are so short that the cells become percussive elements, comparable to programmed and quantised drum rolls. Other times, their stuttering effect recalls a skipping CD. A. Danielsen and A. Maasø discuss the latter phenomenon in ‘Mediating Music: Materiality and Silence in Madonna’s “Don’t Tell Me”’ (2009), emphasizing the relationship of the cut-and-paste effect to an actual

\(^{15}\) Downhill Battle is a non-profit organization that encouraged what members called ‘participatory culture’, including file-sharing. See http://downhillbattle.org (accessed August 15, 2009).
technological glitch in the context of Madonna’s song. In ‘My Red Hot Car’, however, this same effect is only inspired by a glitch; it is not an attempt to simulate one. However, not everyone will appreciate this subtlety. As Stan Hawkins points out in Settling the Pop Score, our experience of sound is tied to our interpretation of the musical codes, which, among other things, relates to our own genre-specific listening competence (Hawkins 2002, 1–35). This particular micro-rhythmic use of the cut-and-paste tool is very typical of Squarepusher’s music and common to many electronica tunes in general. It might thus be regarded as a typical aesthetic effect within this genre, which is likely to appeal more to fans in the know rather than peripheral listeners.

The chopped-up sounds in Oval’s ‘Compact Disc’ (Systemisch, Mille Plateaux 1994) are actually from a skipping CD. Group members scratched lines into the underside of Aphex Twin’s Selected Ambient Works vol. 2 CD, then recorded the resulting montage of incoherent sound sequences (see Sangild 2004, 263 and Cascone 2000). The sonic result of such an operation is often the same as when cutting and pasting with digital editing software, and when the skipping between different musical sequences is deliberately left audible, it is a prime example of opaque mediation as an aesthetic effect. Oval is a prominent representative of so-called, ‘glitch’ music. Since the late 1990s, glitch has comprised a particular music style within electronica, in which the cut-and-paste tool is used extensively. Glitch artists generate technological malfunctions and then use them in an artful and musical way, as Kim Cascone explains: ‘It is from the “failure” of digital technology that this new work has emerged: glitches, bugs, application errors, system crashes, clipping, aliasing, distortion, quantization noise, and even the noise floor of computer sound cards are the raw materials composers seek to incorporate into their music’ (Cascone 2000, 13). The context of ‘art’ and the manipulation of the glitches turn the malfunctions and unintentional sounds into music. Sangild does not consider Madonna’s ‘Don’t Tell Me’ to be glitch music (although glitches are deliberately used as aesthetic effects in this song), because the glitches are theatrically staged as a passing effect (Sangild 2004, 271). The music of Squarepusher, Danger Mouse

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17 Unfortunately, I have only managed to find secondary sources on how the album is made and what has caused these sonic effects.

18 Sangild defines glitch as ‘a minor malfunction or spurious signal, often related to a system or an electronic device’. He adds, ‘Today, glitch is commonly used to describe errors in computer software (more or less synonymous with “bug”) or hardware, computers crashing, or, specifically, the sound of a CD or sound file skipping and stuttering’ (Sangild 2004, 258–59).
and DJ Food also fails to qualify, although each artist uses technological glitches as an important compositional tool. This is probably because ‘true’ glitch music (no matter how ambiguous the definition) is based purely on technological glitches, and often no other sound material is used. As Cascone points out, in glitch music, the tools themselves have become the musical instruments (Cascone 2000). Or, as Eliot Bates describes it: ‘Glitch composition is a meta-discursive practice: rather than writing new music inspired by older recordings, it constructs new music inspired by the technological conditions and limitations in which those recordings emerged’ (Bates 2004, 289). Here the use (and exposure) of mediating tools, as well as the audible side effects and errors of the mediating technology, in fact constitutes the music. Glitch music only reaches a niche market, of course. Referring to Derrida, Hawkins reminds us that identity as a concept is constructed of differentiations more than sameness (Hawkins 2002, 13). In this regard, the fans of glitch music may be seen as part of an insider culture, and the ‘outsiders’ who are not able to hear the minor malfunction or spurious signal as a signifier of artistry only help the insiders feel special.

In several of the musical productions where cut-and-paste is particularly exposed, the music video reinforces this effect in the music (like Madonna’s ‘Don’t Tell Me’ video, for example). A prominent example of this is the electronica duo Telefon Tel Aviv’s ‘What It Is Without the Hand That Wields It’ (Map of What Is Effortless, Hefty 2004). The cut-and-paste tool’s stuttering effect here (which recalls Squarepusher’s ‘My Red Hot Car’) is synchronised with the editing in the video. In Michel Chion’s words, value is thus added through sound/image synchronism to an already compelling musical resource (Chion 1994, 5). Music can also be constructed by cutting and pasting video clips from different sources, as in the videos by the London trio Eclectic Method.\textsuperscript{19} Like Danger Mouse, Eclectic Method applies the juxtaposing technique of cut-and-paste: the introduction of the video \textit{We Are Not VJs}\textsuperscript{20} is a montage of short clips from different musical sources, pasted consecutively. In some videos, they also apply the stuttering technique discussed in relation to Squarepusher’s music. In their \textit{Kill Bill Remix}\textsuperscript{21} shots from selected fighting scenes from \textit{Kill Bill} are cut out and placed so that the punches and kicks of the fighting correspond to a strict metronomic grid of reference and in fact construct a drumbeat. In such instances, both the music and the videos are based on the cut-and-paste tool.

\textsuperscript{19} According to McLeon, they do so by using the VJam software developed by Coldcut (McLeod 2005, 83).
\textsuperscript{20} Eclectic Method’s \textit{We Are Not VJs}: http://www.youtube.com/watch?v=-C4wmge9-5k (accessed August 15, 2009).
\textsuperscript{21} Eclectic Method’s \textit{Kill Bill Remix}: http://www.youtube.com/watch?v=u9QP7sfILsr8 (accessed August, 15 2009).
The opacity of mediation generated by the cut-and-paste tool, such as the dropouts in DJ Food’s ‘Break’, the percussive and stuttering effects in Squarepusher’s ‘My Red Hot Car’ and the skipping of musical sequences in Danger Mouse’s ‘Dirt Off Your Shoulder’, all have their origin in glitches and medium errors, which have thus come to represent an aesthetic ideal. Sounds and effects such as vinyl noise, feeding, distortion and overdrive also represent examples of opaque mediation that were first heard as errors or side effects but whose aesthetic dimension has since been welcomed into the music.

**Conclusion**

The exposure of mediating technology is by no means a new phenomenon. However, digitalization offers a far greater array of forms of opaque mediation and has contributed significantly to its aesthetic. The extensive use of the cut-and-paste tool in ‘Break’ would, for instance, be too overwhelming to carry out as a physical cut-and-paste operation in the analog medium. Furthermore, the dropouts consisting of complete digital silence would be impossible without digital media. This development of technology and expansion of the opaque mediation aesthetic have extended musicians’ and producers’ compositional palette. The dropouts are, for instance, a new and unique musical element with a peculiar affect upon rhythm and sound. It is widely thought that opaquely mediated music involves more technology and is thus a more manipulated mode of expression than transparently mediated music, which is in turn viewed as an objective and trustworthy documentation. The fact is, however, the appearance of mediation is more a result of *how* technology has been used than *how much* has been used. When music is criticised for being too reliant upon technological manipulation, it is in fact less the mediating technology itself that is under attack than the aesthetic that values it. What is described as a lesser degree of mediation, then, should be recognised instead as transparent mediation and unveiled as a rhetorical attribute or a mimetic strategy, since what is at stake is how audible the mediation is. In either form, mediating technology has tremendous importance for musical expression, which makes it very important to acknowledge studio equipment as compositional tools.

It is always true that a new technological device leaves more noticeable traces of its use than a familiar one, and producers/sound engineers have dealt with this reality in a variety of ways. While some have tried to conceal the traces of a new device by making it work like familiar equipment did, others deliberately expose them, often to the extent that the new device becomes a sonic trademark for a specific time. For instance, when the microphone was introduced (and regarded as opaque mediation), it was either used discreetly in the same way...
as the previous medium’s recording horn, or it was foregrounded via the new technique of close-up microphone placement, creating in turn a new and unfamiliar sound. When multitrack recording was introduced, some used it merely to record instruments separately, which was a practical and inaudible operation, while others experimented with balancing the volume of the different elements, which at that time was considered an opaque operation. With the invention of stereophonic sound, some used it to simulate the usual placement of instruments at stage performances, while others experimented with relocating sounds continuously from right speaker to left speaker and back again. However, as we as listeners have become accustomed to new musical expressions inspired by new technological inventions, our comprehension of what a ‘real’ live performance is has changed as well. For instance, live stage appearances today involve much more mediating technology than they once did. Standards vary across genres as well: listeners within the culture of country music may perceive an aggressive use of the compressor as opaque, while listeners within the hip-hop culture may perceive the same mediation as transparent.

The reasons why we perceive mediation as opaque also might range from a producer/sound engineer who fails to simulate a live situation to a changing definition of opacity to a difference in aesthetic ideal. As I have demonstrated here, the production ideal of ‘Break’ is not to simulate a live situation (where the mediating technology would be concealed) but instead to foreground the mediation. The song is meant to sound chopped up, the missing sounds are meant to be missing and the voice is meant to sound unnatural and manipulated. What makes the groove work in ‘Break’ is as much this very technological manipulation as it is the instrumentation itself.

Bibliography


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**Discography**


