

Abstract:

This essay explores the manner in which music production software, by granting to users the capacity to experience music in ways they cannot on their own, undermines the modern form of subjectivity known as individuality. It critiques Jacques Attali's prognostication of a network of musical composition, under which musicians produce for themselves according to their own codes and outside the codes established by a particular historical configuration of power; draws on examples of contemporary musical forms, namely the mashup; and discusses the manner in which Audacity and similar software allows users to 'see music'. Thus I demonstrate that the new tools of musical production instantiate what Jonathan Sterne calls 'perceptual technics', by which the human body becomes incorporated into the process of valorisation by virtue of an ability it lacks. Such incorporation draws our attention to the manner in which traditional Marxist understandings of the relationship of the human to the machine--assumptions which Attali shares--are no longer valid. Attali's postmodern understanding was a powerful means by which to critique modern forms of power and subjectivity, but under postmodern conditions, when the individual becomes a 'dividual', new critical tools and concepts are needed to address a valorisation irreducible to a labour understood as discreet from the tools it 'uses'.

Comment [1]: I have used this program before! Could this be a tool in my own project?

Comment [2]: Does seeing the music vs. making the music go hand in hand?

Full Text:

Today, a new music is on the rise, one that can neither be expressed nor understood using the old tools, a music produced elsewhere and otherwise. It is not that music or the world have become incomprehensible; the concept of comprehension itself has changed; there has been a shift in the locus of the perception of things.

Comment [3]: Many things are going from paper to digital.

(Attali 1985: 133)

This short essay describes the challenge digital technologies present to traditional Marxist understandings of valorisation, as well as to other related concepts (such as the subject, the machine, and the autonomy and coherency of the work), in the context of contemporary musical production.

This challenge exists in a much wider context than this one, of course, as it is part and parcel of late capitalism and its cultural logic. However, even if the present discussion considers only a small aspect of a much broader phenomenon, this aspect is exemplary. Jacques Attali's political economy of music provides one of the present essay's points of embarkation as well as its object of critique. It demonstrates that the social and political functions of music--in terms of its production, distribution, and consumption-- are profound. Music has revolutionary potential but, when its noise is codified, it sublimates and channels violence away from the current configuration of power maintained by such codification and, with each new instantiation of its network, increasingly limits personal expression to sanctioned forms of communication. Relatively recent conflicts fought amongst the music business, consumers, producers, and tech developers over music as intellectual property (e.g. over sampling and peer-to-peer file-sharing) reflect the status of music as a sort of 'canary in the coal mine'. Attali makes a very similar point when he repeatedly notes that 'music shows the way' with regard to politics. To be clear: one of

Comment [4]: It surprises me there are so many elements to music itself.

Comment [5]: Could this lead to any issues regarding originality?

the first political economic conflicts instigated by networked and digital media was fought over the status of music. However, far from simply affirming the revolutionary nature of music--or, rather, far from demonstrating that such revolutionary potential operates simply and exclusively against capitalism, entrenched power, and the value they produce--this conflict made clear the fact that if the digital age provides an escape from the historical situation and attendant forms of power which precede and condition it, it only does so by inaugurating a new historical condition and a new form of power to which valorisation has been subordinated.

In fact, the degree to which this conflict has been resolved in recent years demonstrates the manner in which the music business has embraced--perhaps with some residual hesitation and unhappiness--the very postmodernism that seemed, once upon a time, poised to destroy it. (1) The consequences of this embrace, and the stakes for discussions of the political potential of music and the digital tools used to make it in the context of this embrace, are clear. With the advent of prosumption and the prosumer, in the era of the hacker who becomes the vectoralist, in the context of so-called 'playbor' and the absolute dissolution of the boundaries of the working day and of the distinction between otium and negotium--in short, when capitalism has inveigled its way into every aspect of life and turns every action, no matter how minute, into surplus value--no conceptualisation of music as a revolutionary force can afford to mistakenly fight an outdated battle against the modern institution of industrial capitalism, a mistake Attali himself makes. As Gilles Deleuze writes in 'Postscript on Control Societies', a short essay influential on my argument here, 'It's not a question of asking whether the old system or the new system is harsher or more bearable, because there's a conflict in each between the ways they free us and enslave us. [...] It's not a question of worrying or of hoping for the best, but of finding new weapons' (Deleuze 1995: 178). (2) These weapons must be new in the sense that they need to replace the old ones which fought previous forms of power. They must be new because the old ones, the concepts developed by postmodern theory as weapons against modernity, have been appropriated by power as it took on a new form.

Figure 1 is a screenshot of an **Audacity** project. Audacity is a free but powerful software package for editing audio files; it works on computers running Mac OS X 10.4 to 10.9.x, Windows 2000/XP/Vista/Windows 7/Windows 8, or GNU/Linux. The project in question involves the representation of 'Encore,' a track from Danger Mouse's The Grey Album, as a waveform. The consequences of this visual representation will become clear below. For now let me note that The Grey Album is a mashup of Jay-Z's The Black Album and The Beatles' The Beatles (also known as the White Album). 'Encore' samples vocals from an a cappella version of Jay-Z's own 'Encore' and music and vocals from the Beatles' 'Glass Onion' and 'Savoy Truffle'. As such, Danger Mouse's 'Encore' is an obviously fragmented work, its identity divided by the juxtaposition of old and new, black and white, rock and rap, among other things. Danger Mouse, who is both the consumer of recorded music and its producer, likewise 'enjoys' a divided subjectivity. 'Encore' in particular, and mashups generally (not to mention other forms of plagiarism, cut-up, collage, etc.) thus combat modern notions of the originality and autonomy of the work of art. Danger Mouse and mashup artists challenge modern authorship and subjectivity, what Deleuze calls **individuality, and the power which produces it**, namely discipline. **Mashups** and their producers mount these challenges in part because Audacity (and

Comment [6]: I have this program! It was free, so it is nice to see that it is known to be a powerful program.

Comment [7]: An artist's identity should play a large role in their music.

Comment [8]: Something that could be made with audacity? I did not know that!

similar software, such as Acid Pro and Adobe Audition) provides users with abilities they do not possess on their own, as autonomous labourers, namely the capacity to perceive waveforms such as the one represented in Figure 1. (3) Audacity provides users with this ability by way of its interdependence with the perceptual limitations of those users, because it exploits what its users cannot do in order to participate in valorisation. It thereby allows users to intervene deeply into recorded sound in a manner not possible with traditional instruments. As such, we might consider these works of art, these artists, and these tools--specifically in terms of their mutual constitution, postmodern, weapons against modernity. However, they do not exist--postmodernity does not exist--beyond subjectivity, power, or value, but only under a different configuration of subjectivity, power, and value, a configuration made possible in part by Audacity and other such software and the visualisations they create.

Comment [9]: I will have to look into these. Are these used in a professional setting as well?

[FIGURE 1 OMITTED]

This recognition is significant. One of the most powerful theorisations of the relationship between music and power, Jacques Attali's *Noise*, imagines a musical network called composition, which in many respects embraces the concepts developed by postmodern theory as a way out of modernity and the values it prescribes. Composition does not, for Attali, replace such value with a new value sanctioned by power, but rather affords musicians the opportunity to produce and embrace values according to their own desires. As I shall demonstrate, Attali's assumption that musicians such as Danger Mouse, operating under what he calls composition but what could just as easily be named postmodernism, escape from power, history, and pre-established musical codes is dangerous for the reasons listed above. They may create personal value by ignoring the boundaries between the individual songs from which they sample, boundaries set by a disciplinary power that draws firm distinctions between discrete subjects (individuals) and objects (such as the 'unique' or 'original' work of art). However, such valorisation still involves power, history, and pre-established musical codes, even if each of these concepts must be rethought. Understanding the manner in which Audacity and similar software allows musicians to perceive and manipulate sound in ways they could never achieve entirely on their own--otherwise put, the manner in which perceptual technics produces perceptual capital, in Jonathan Sterne's terms--is a necessary component of this rethinking.

Comment [10]: How Audacity and other music programs work.

The remainder of this essay takes the following form. With the aim of clearing a space in which this rethinking can take place, and keeping in mind the stakes I identify above, I first describe Michael Hardt and Antonio Negri's argument that postmodern theory, while an adequate weapon against modern forms of power such as discipline (which seeks to produce sameness and is averse to difference), fails to offer means through which we might overcome power's more contemporary instantiations, namely control (which eschews sameness and rigid moulds in favour of difference and fluid modulations). I then deploy this argument, and Deleuze's related description of control societies, against Attali's optimistic conceptualisation of composition as a new network of music's political economy. To accomplish this task I briefly summarise Attali's project and connect it more clearly to schisms between modernity and postmodernity, on one hand, and discipline and control, on the other, as described by Hardt and Negri and Deleuze. Finally, I turn my attention back to software and Danger Mouse in relation to Sterne's

Comment [11]: Where would the type of today's music fall into?

conceptualisation of perceptual technics. I thus demonstrate the manner in which traditional Marxist notions of labour, subjectivity, technology, and value fail to describe production under contemporary capitalism.

Hardt and Negri argue that practices and concepts of '[d]ifference, hybridity, and mobility' developed between the 1950s and 1990s 'are not liberatory in themselves' (2000: 156). They take to task those postmodern theorists whose critique still focuses on modern forms of power, namely modern sovereignty. Such critique 'fail[s] to recognise adequately the contemporary object of critique', namely postmodern forms of power such as control and Empire. Hardt and Negri ask, 'What if these theorists are so intent on combating the remnants of a past form of domination that they fail to recognise the new form that is looming over them in the present? What if the dominating powers that are the intended object of critique have mutated in such a way as to depotentialise any such postmodernist challenge?' (ibid: 137--38). Postmodern theory, which celebrates difference as an antidote to the monolithic institutions and coherent/autonomous subjectivities offered by the Enlightenment, cannot, according to Hardt and Negri, account for the manner in which postmodern power itself embraces difference. As postmodern theorists deconstructed and otherwise undermined those modern enclosures known as the subject, the state, the school, or industrial capitalism itself, Empire and control established modular, fluid, and flexible institutions and subjects which were part and parcel of a new form of power. Thus, as Deleuze describes, and Hardt and Negri develop (see ibid: 325-50), postmodern control was born of modern discipline. This birth makes necessary the new weapons Deleuze demands.

Attali does not refer to discipline (or most of the other terms I deploy here). He nonetheless conceptualises composition as a way out of the auspices of modern power. Attali calls the modern form of the musical network 'repetition'. It begins with the invention and innovation of sound recording technologies which perfectly disseminate (or repeat) music, along with the sanctioned social and political codes it involves, to listener-consumers on a mass scale. Previously, under the network of sacrifice, music had been something people made, very often in the streets or in the home. Under the regime of representation, music became something people went to see others make, in one form of theatre or another; thus was first established a clear distinction between the producer and consumer of music. Repetition, I would argue, became possible because of this distinction, and reified it as such. Under repetition, music came to be something people collected and stored, along with the codes it involves. That is, listeners stockpiled the time of the musician, time that these listeners would then have to spend absorbing what others wished to communicate (which amounted to channelled noise, a code acceptable to power) rather than expressing themselves according to their own desires. Repetition appears as an apotheosis of modern industrial capitalism and disciplinary power. In a Fordist manner, it oversees the production of stable, identical objects, known variously as songs, records, albums, LPs, cassettes, and even CDs. Likewise, repetition produces the discrete yet identical subjects Deleuze calls 'individuals'. Individuals may be (or at least are understood to be) autonomous and agential, but they are constrained with regard to what they may consume and produce, limited to the historical situation in which they find themselves, incapable of escape. In terms of musical consumption, they may stockpile and listen to those

Comment [12]: The reach music has is astounding.

Comment [13]: The distribution of music?

instances of musical codes sanctioned by power; in terms of the musical production, they may create only according to those codes always already understood as meaningful and communicative. Individuals are free to be themselves only to the extent that the selves they wish to be come in pre-determined and pre-packaged forms. Individuals may find others of their type and thus come together as groups called nations, unions, or fanbases.

Composition therefore becomes a weapon against disciplinary power and thereby makes up for the shortcomings of previous forms of radical (and I would add modern) political economy which previously failed to overcome it. With regard to disciplinary power, composition undermines stable distinctions between producer and consumer, between producer and production, and between producer and instrument, by destroying the musical codes established under previous networks and refusing to establish new ones. Thus the consumer of music is freed from having to stockpile sanctioned codes and is liberated to become the producer of music, liberated to be herself. She becomes a true individual who can play without any prescribed end in mind and therefore only for the pleasure of playing itself, outside of the conditions history presents as constraints--in a manner very similar to Danger Mouse, who began as just 'some kid in his bedroom'. (4) With regard to insufficiently radical political economy, composition, as a concept, properly demonstrates how the alienation and exteriority endemic to industrial capitalism came to be, something that other theories had failed to do because they insisted that property was to blame. Attali argues that the issue is not property per se but the usage of labour according to pre-established (in other words, disciplinary) codes to which labour must conform: 'From the moment there was an operability to labour, there was the exteriority of the labourer. From the moment there was a sacrificial ritual coded independently of the musician, the musician lost possession of the music.' In short, from the moment a producer produces according to codes set a priori--such as those found within all previous musical networks but perfected under repetition--the producer is alienated from her production. Composition eliminates exteriority by configuring the production of music as a lived event which is its own end: 'Exteriority can only disappear in composition, in which the musician plays primarily for himself, outside any operability, spectacle, or accumulation of value; when music, extricating itself from the codes of sacrifice, representation, and repetition, emerges as an activity that is an end in itself, that creates its own code at the same time as the work' (Attali 1985: 135).

Both contemporary capitalism and the music business it supports embrace the play of differences postmodernism affords and Attali celebrates. Even as stability becomes unstable, even as the former consumer becomes the current producer, even as the work and the musician become one, power re-establishes itself in these very becomings. Danger Mouse may have started out as 'some kid,' as a listener-consumer, but he has gone on to become a producer, one with a collection of Grammy Awards to his name. (6) The Grey Album may have been illegal, outside of pre-established codes, but its success produced a tremendous amount of sanctioned value nonetheless. Modern notions of property require strict boundaries between, for example, individual songs, but mashups erase this boundary and, again, create value. Marx's understanding of the human labourer renders it distinct from tools and machines which only amplify the capacities of such labourers to produce value, but software such as Audacity and Acid Pro efface such notions of autonomy by providing labourers with new capacities of

Comment [14]: These programs composition allowed them to flourish as artists?

Comment [15]: That is an interesting way to viewing the programs! I relate to this since I will be doing most of the producing on my own.

perception and thus manifest new forms of value.

As a concept, dividuality draws together several threads of my present discussion, those involving digital production tools such as Audacity, valorisation, and Attali's conceptualisation of composition. Audacity (and Acid Pro, etc.) works only to the extent that subjects are individualised; it does what it does in part by first taking advantage of the human inability to see sound and by then providing this ability to the human. It becomes a platform for a form of valorisation irreducible to 'labour' or to the autonomy of the labourer vis-a-vis the machine. Attali, in his conceptualisation of composition, understands **new forms of instrumentation--which is to say music-making tools or machines--to play a decisive role in the liberation of the subject from the codes of previous musical networks.** However, he cannot foresee that the most significant form new instruments would take would be software packages which, far from creating greater autonomy for the subject, enmesh it in a form of power--control--based upon interdependence, here that of the human and machine.

Comment [16]: These programs emulate instruments?

Whereas representation made use of **printed musical scores** to distribute pre-established codes, and repetition made use of various forms of recording to do the same, composition involves the production and use of new instruments which afford new and radically personal forms of expression. Musicians produce with these instruments according to codes they invent as they play, codes to which they conform according to their own desires. Recorded sound demanded that consumers use their time to listen to the time of others, the duration of a song recorded by someone else. By contrast, 'Composition liberates time so that it can be lived, not stockpiled. It is thus measured by the magnitude of the time lived by men, which takes the place of time stockpiled in commodities' (Attali 1985: 145 original emphasis). New instruments, and the subjects who use them according to their own desires, make living time and music possible. However, to make this case and to overcome the modern form of power and valorisation with which repetition is involved, Attali relies here on the autonomy of the subject from its instruments, a reliance that is itself modern and therefore inadequate as a weapon against postmodernity.

Comment [17]: Makes things easier for the artist.

That he does so should not be surprising, as Marx himself, in a thoroughly modern understanding of labour and the subjects who enact it, makes much the same claim. In volume one of Capital, Marx writes that a machine 'is a mechanism that, after being set in motion, performs with its tools the same operations as the worker formerly did with the tools' (Marx 1981: 495). A human may use a single tool, but a **machine makes use of multiple tools simultaneously.** Along similar lines, in the Grundrisse Marx claims that machines involve value in only two ways. First, the machine objectifies labour, insofar as it was produced by labour and therefore has value. Second, and more importantly here, the machine increases 'the relation of surplus labour to necessary labour, by enabling labour, through an **increase of its productive power,** to create a greater mass of the products required for the maintenance of living labour capacity in a shorter time' (Marx 1993: 701). Importantly, in each explanation the machine appropriates what the labourer does, not in order to do something the labourer could not do on her own, but only to amplify what the worker could have done on her own at a lower capacity. Thus Marx's theorisation of the machine dovetails with the labour theory of value, according to

Comment [18]: This proves how powerful technology has become in the music industry.

Comment [19]: This is an effect of the efficiency of music programs!

which value accrues by way of the capitalist maximising surplus value (the difference between what labour produces and what labour is paid to produce), and implies a modern notion of subjectivity.

Jonathan Sterne challenges such autonomy when he identifies, in *MP3: The Meaning of a Format*, a form of value he calls perceptual capital and describes the process, perceptual technics, through which this value accrues. Sterne shows how the mp3 format owes its existence in large part to research into human hearing dating back to the nineteenth century and, in so doing, offers a powerful example of the interdependence of subject (who cannot be understood as a labourer in the sense Marx and Attali assume) and machine in the context of sound and music production. Sterne defines 'perceptual technics' as 'the application of perceptual research for the purpose of economizing signals' (2012: 19). For example, research into telephony and hearing in the early twentieth century made possible 'surplus definition' in phone lines and therefore led to the capacity of such phone lines to carry more than one signal (or conversation) at the same time. Sterne notes that machines had long been involved in the production processes of industrial capitalism, 'But the move to hearing research took this one step further, for it brought the user's body into the process of increasing corporate profit margins' (ibid: 45). By increasing the capacity of extant infrastructure (i.e. the copper cables which carried telephone conversations), specifically by exploiting the newly understood standard frequencies within which human beings perceive sound, capitalists discovered a new form of value. Sterne calls this new form of value 'perceptual capital' and lists several of its characteristics, two of which are important here. First, he notes, 'Perceptual capital exists only in the aggregate and does not inhere in individuals. It is the product of a relationship between users and communication technologies.' Second, 'Perceptual capital is not directly generated from labor, because it makes use of users' abilities and inabilities to perceive economic or instrumental ends' (ibid: 49 my emphasis).

Comment [20]: The past can affect the future and the research done improves upon new technology development one step at a time.

As Jordan *DJ Earworm* Roseman makes clear in his *Audio Mashup Construction Kit* with regard to Acid Pro and Adobe Audition (other audio editing software packages), waveforms and other visualisations of music are important (and instrumental?) for producing mashups. Roseman writes, 'You won't be able to hear what a waveform would sound like by simply looking at it, but there are many sonic features that become visually recognisable at various levels of time magnification' (Roseman 2007: 29). These features allow the user to identify, through a form of perception she does not possess on her own, parts of a song for use in other songs. For example, under sufficient magnification (and depending on the song under such magnification), 'individual drum sounds become visible' and '[r]epeating patterns are visible' (ibid: 30). (7) Such patterns allow the labourer to select small rhythmic and harmonic units of a song and make use of them as building blocks. Other software, such as *Adobe Audition*, allows the labourer to distinguish layers of sound from one another and thereby isolate and extract, for example, vocals from an underlying harmony. As such, music production software blurs the edges of the individual song. It produces a dividuallised work whose internal divisions may themselves be valorised--as productions in their own right and through their use in future productions--in an endless number of configurations.

Comment [21]: I listen to his mashups!

Comment [22]: "A waveform is the shape and form of a signal such as a wave moving in a physical medium or an abstract representation." - Wikipedia

Comment [23]: Wow, very interesting! You can record multiple layers and combine them together for a song, correct?

Comment [24]: This really packs to whole song together so nothing sounds out of place.

Likewise and at the same time, because it provides musicians with an ability they do not possess on their own, such software's visualisations constitute a perceptual technique. They afford valorisation specifically by exploiting a lack in labourers' perceptual capacities. Otherwise put, Audacity, Acid Pro, and Adobe Audition, as instruments or machines, participate in valorisation not by amplifying something a labourer could do on her own, but by creating a dividualised subject whose productive capacity involves software (and hardware) on a fundamental level. Far from escaping pre-established codes, the production of music under such conditions involves a reconfiguration of the notion of code even as it involves a reconfiguration of the subject and her relation to technology. Although Audacity allows the labourer to make 'original' music, and despite the fact that musicians still make music with traditional instruments, contemporary musical production appears, in the present argument, more dependent on the past than ever before. No longer do codes come in the form of some nebulous 'influence', according to which one might make music 'like' that made by the Beatles or 'in the tradition' of Jay-Z. Rather, one now makes music directly out of old music. (This does not even get into the issue of how Audacity and other software are themselves literal codes which allow or deny certain operations at level imperceptible to most labourers). I do not offer any value judgement here, but only an affirmation of value as such. As Deleuze tells us, worrying whether dividuality is worse than individuality, or if control is more powerful than discipline, is beside the point. Power is--whatever our valuation of it. The task of criticism is to understand and transform it.

Comment [25]: How technology has helped music producing.

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References

Attali, Jacques (1985) *Noise: The Political Economy of Music*, trans. Brian Massumi, Minneapolis: University of Minnesota Press

Deleuze, Gilles (1995) *Negotiations: 1972-1990*, trans. Martin Joughin, New York: Columbia University Press

Haraway, Donna (1991) *Simians, Cyborgs, and Women: The Reinvention of Nature*, New York: Routledge

Hardt, Michael and Antonio Negri (2000) *Empire*, Cambridge, MA: Harvard University Press

Marx, Karl (1981) *Capital: A Critique of Political Economy*, trans. Ben Fowkes, London and New York: Penguin Books

--(1993) *Grundrisse: Foundations of the Critique of Political Economy*, trans. Martin Nicolaus, London and New York: Penguin Books

Moss, Corey (2004) 'Grey Album Producer Danger Mouse Explains How He Did It', MTV News, <http://www.mtv.com/news/1485693/grey-albumproducer-danger-mouse-explains-how-he-did-it/>,

accessed 30 September 2015

Roseman, Jordan (2007) *Audio Mashup Construction Kit*, Indianapolis: Wiley

Sinnreich, Aram (2010) *Mashed up: Music, Technology, and the Rise of Configurable Culture*, Amherst: University of Massachusetts Press

Sterne, Jonathan (2012) *MP3: The Meaning of a Format*, Durham, NC: Duke University Press

Media Cited

Audacity [audio editing software], Dominic Mazzoni and Roger Dannenberg, (2000-2015), <http://audacityteam.org/>, accessed 30 September 2015

The Beatles [LP Album], The Beatles, London, Apple Music, (1968)

The Black Album [CD], Jay-Z, New York, NY, Roc-A-Fella (2003)

The Grey Album [mp3 download], n.p., n.p., Danger Mouse (2004)

(1) See Sinnreich (2010: passim) for discussion of how the mashup form threatens modern notions of subjectivity, the work of art, originality, etc.

(2) This short text provides a great deal of the vocabulary I deploy throughout this essay.

(3) There are differences amongst the various software packages I mention here and below, but they are not crucial to my argument. I concentrate on Audacity because of its accessibility (2000-2015). Danger Mouse used Acid Pro to create The Grey Album (see Moss 2004). Although Moss does not mention this fact, legend has it that Danger Mouse's copy of Acid Pro was bootlegged. Also note that Audacity, Acid Pro, and other such software packages offer users other ways to visualise music. They may, for example, visualise music spectrographically or in terms of pitch. Each of these visualisations offers its own affordances, the specifics of which are less important to my argument here than those offered by the waveform and the fact of visualisation itself.

(4) See Sinnreich (2010: 107-123) for discussion of the 'audience/artist binary' and the concept of 'some kid in his bedroom'.

(5) Note that, even though Haraway appears at times to be just the sort of postmodernist Hardt and Negri decry, she nonetheless challenges exactly the sort of Marxist dream of wholeness which Attali deploys in *Noise*. Haraway makes clear that the concepts associated with postmodernism do not produce freedom tout court.

(6) Interestingly, Danger Mouse's description of his method for creating The Grey Album places

a great deal of emphasis on listening as a necessary prerequisite for producing mashups: 'The first thing the producer did was listen to The Black Album a cappella and measure the amount of beats per minute for each track, a common technique for club DJs who seamlessly mix music together'. It continues, 'Next, he scoured all thirty songs on The White Album, listening for every strike of a drum or cymbal when other instruments or voices were not in the mix. Most were single sounds, which he would later put together to make beats' (Moss 2004).

(7) Roseman is here describing a waveform of Missy Eliot's 'Wake Up' produced by Acid Pro.