Sounds of Futures Past
Materiality, Hauntology, Affect

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Abstract
This article examines the ghost effects in *Dark Night of the Soul* produced by the residual media of old sonic technologies. Alfred North Whitehead’s notion of perception in the mode of causal efficacy is used to explain how materiality has agency over the listener.

Keywords ghost effects, hauntology, materiality, uncanny sonics

New sonic technologies are constantly added to music production, allowing for new affordances, both technological and aesthetic. Materiality plays a significant role in our sonic experience. We are used to thinking about music innovations as in part dependent on technological innovations. The 8-track improved the mixing capabilities, ProTools afforded new ways of manipulating sound, and so forth. But what happens when obsolete sound technologies make a reappearance, and when the materiality of older technologies are used as aesthetic devices? Here, I will argue for the production of sonic ghost effects through the incorporation of older forms of sonic materialities.

One of the best examples of sonic materialities that produce ghost effects is Danger Mouse and Sparklehorse’s controversial album *The Dark Night of the Soul*. The controversy surrounding the album...
comes not from this album itself, but from another album that haunts this one, if only in a legal context. Originally, the album was a concept album collaboration between Danger Mouse, a musician and producer possibly known best from Gnarls Barkley, Sparklehorse, an indie rock multi-instrumentalist, and David Lynch, who would provide photographs. Danger Mouse and Sparklehorse performed and produced the music, inviting many famous vocalists to contribute. The album was ready to be released by EMI in 2009, when EMI abruptly decided to drop the album. The reason: Danger Mouse’s 2004 The Grey Album, a mashup of The Beatles’ self-titled album commonly referred to as The White Album and Jay-Z’s The Black Album. Danger Mouse released this album online without asking for permission or rights and so EMI (owner of The Beatles’ copyright) demanded distribution ceased.

In what can only be considered an act of petty revenge, just as the Dark Night of the Soul album was ready to be released, EMI dropped it, making it impossible for Danger Mouse and Sparklehorse to release the album without incurring legal action. What they did was to release the book of photographs with an empty CD. Simultaneously, the music showed up on various illegal download sites. A year later, the album was released by conventional means through Parlophone and Capitol Records, containing far fewer of Lynch’s visuals.

The music itself, however, did not change. Filled with ghost effects and uncanny sonics, the album has an unusual ambience for a pop music production. The album employs an impressive array of sonic effects. The ambience teems with uncanny sonics through the foregrounded materiality of residual media, such as vinyl records, Speak & Spells and other outdated devices. Simultaneously, these older musical technologies are reframed by newer, digital processes that resurrect aesthetic textures from earlier music technologies. Digital dust, doppelgänger and machine voices blur the separation between human and nonhuman performance, showcasing that materiality exhibits agency.

I use the term “residual media” in the way that Charles Acland uses it in his introduction to the anthology Residual Media to suggest how “the material entwinement of the old and the new is a particular experience and understanding of the passing of time and historical change.” (xvii) New technologies often work by reproducing earlier effects and experiences, so that we may speak of such things
as “digital dust” which is the addition of the sound of dust in the grooves of a vinyl record to a fully digital production. Similarly, new digital technologies afford easier voice modulation, manipulation, and doubling, which then produce uncanny versions of recognizable voices. With these affordances, we see how digital technologies exert their own forms of agency, in producing new ways of doing and making music.

A quick word on materiality here is also necessary. I use materiality in a broadly inclusive way, to not just suggest the objects and devices that are part of any music production (instruments, microphones, distortion pedals, mixing boards) but also the materialism of sound itself: the way an environment is made to vibrate with the sounds of music, the vibration of our ear drums, even our entire bodies. Sound is a material process, not just made by material objects.

Agency, Materiality, and Perception
The uncanny experience we have listening to Dark Night of the Soul comes from its unusual materiality. In evoking music’s materialism, I draw on the work on sonic materialism developed by Christoph Cox and Will Schrimshaw, who focus on sound’s material dimension. Schrimshaw is most explicit in connecting such sonic materialism to sonic affects, although he emphasizes that such affects are not contingent on individual affirmation, i.e. the process of articulating affect as an embodied emotion (Schrimshaw 2013). In individually affirming sonic affects as embodied emotions, there is a transfer from a material dimension to an aesthetic-experiential dimension which is not fully material but is induced by material effects. This process is what is at stake for me.

Cox makes a larger argument in his attempt at reconfiguring sound studies as inherently materialist, by arguing that sounds are events – they are not objects in the same way that drums, tables, and mountains are objects. In insisting on a materialist approach Cox, possibly unwittingly, follows Whitehead in naming all objects events. It is just that some events change “at relatively slow speeds.” (Cox 157, see Whitehead 1967, 175-185; 2004, chapter VII). Cox follows Casey O’Callaghan’s argument that sounds are waves that “occur, take place, and last.” (O’Callaghan 57, emphasis in original).
In other words, sound is a material event that therefore has its own form of agency.

Media archaeology has become a strong field for understanding the complicated genealogy of media technologies and the ensuing “technics of the body” (Parikka 2012, 31). In this way, media archaeology engages with materiality’s agency, the ways in which “media includes a new agency of the machine.” (Parikka 2012, 70) Matthew Fuller argues much the same in his Media Ecologies, when he discusses “materialist energies” as patterns and interactions between matter and energy (Fuller 2005, 4). Media archeology has little to say about the experience of said media technologies, instead preferring to remain well below human phenomenology, i.e. the not immediately perceivable.

However, just because something is below human phenomenology is not to say that it does not register in our experience. Alfred North Whitehead in his Process and Reality distinguishes between two modes of perception. The first is “perception in the mode of presentational immediacy,” which is essentially ordinary sense perception. The second is “perception in the mode of causal efficacy” (Whitehead 1974, 135, 134), sometimes termed nonsensuous perception, although that sounds misleading (no pun intended). Causal efficacy is defined by Whitehead as a vector feeling that allows later experience to coalesce. In other words, perception in the mode of causal experience is prior to our conscious experience and filters our experience, which makes it parallel to Schrimshaw’s argument that affects are imperceptible “agents of qualitative, sensory appearances that remain irreducible to them.” (Schrimshaw 32). For this reason, memory is perception in the mode of causal efficacy, since we are who we are because of our memories: they are our settled forms. Perceptions in the mode of causal efficacy are fedforward to consciousness, as Mark BN Hansen terms it (Hansen 2014). In a slightly different register, we can say that the causal efficacy haunts our experience — we never have access to it, yet it impinges on us. Materiality thus exhibits agency over us, because perception in the mode of causal efficacy registers material effects and feedsforward to our perception. We do not control this process, since I cannot deny the headache a supersonic sound produces, and so am affected by it.
But media technologies also have memories, in the form of obso-
lete technologies. Charles R. Acland calls such residual media “the
material entwinement of the old and the new” which inevitably
leads to “reconfigured, renewed, recycled, neglected, abandoned,
and trashed media technologies and practices.” (Acland 2007, xvii,
xx) Older media never go away, which is why they are residual.
They remain to always come back, whether as recycled material
forms or renewed practices. Dark Night of the Soul does both by re-
configuring old sound technologies and recycling abandoned
sounds, such as the record player’s needle crackling with dust in
the vinyl album’s groove.

We would do well to consider David Toop’s notion of “sinister
resonance” to understand this album: “a haunting, a ghost, a pre-

cence whose location in space is ambiguous and whose existence in
time is transitory.” (Toop 2011, loc 188) Although this description
fits all sound for Toop, it is evident that Dark Night of the Soul delib-
erately plays with the haunting atmosphere of residual media.
Such sinister resonance emerges from the condition that R. Murray
Schafer identified as schizophonia: “the split between an original
sound and its electroacoustical transmission or reproduction”
(Schafer loc 1910). But in fact Schafer does not go far enough, be-
cause some sounds are not simply reproduced electroacoustically
but are produced electroacoustically and could never exist “natu-
raly” or separate from an electroacoustic ecology. The dissolution
of sounds as natural or artificial suggests that materiality acts and
produces sensations.

We can call such materialist agencies “ghost effects,” taking a cue
from Brian Rotman’s concept of “invisible, technologically induced
agencies that emerge … as autonomous self-enunciating entities”
(Rotman 2008, 113). Rotman’s ghost effects also register a shift be-
tween objects as material and technologically induced agencies as
material, although the latter are less obviously material: they fall
within Whitehead’s causal efficacy; not consciously perceived yet
still registered. Ghost effects confront us with the fact that we are
often the results of materialist agencies, essentially what Schrim-
shaw refers to as affects. That is to say, aesthetic encounters and
events hinge on the transduction of materialist agencies to bodily
affects. This is why the experience of listening to Dark Night of the
Soul is so uncanny; we feel materiality impinging on us, the reacti-
vated ghosts of old technologies, that we cannot fully place because these sounds are ambiguous and transitory.

**Ghost Effects**

As a way of understanding what such ghost effects are and what they entail, let us take the last track on the album “Dark Night of the Soul” sung by David Lynch. The entire song has a distressing echo to it, not unlike the industrial soundscapes we know from Lynch’s early films and Lynch is also credited with sound effects and synthesizer in the liner notes. This mechanical acoustic space lends an ominous mood to the song. The use of sound effects, such as cracking, distortion, and echoes is an example Toop’s sinister resonance.

These resonance effects may then be considered according to Cox’s notion of sounds as force-complex – the forces and intensities of several sounds as they interact in a new becoming (Cox 157). The track consists of instruments but also the sound effects and their interaction with the instruments’ sounds. Individually, they each have their own powers and forces that end up mattering together. The instruments matter, the sound effects matter, and each produce their own material agency that work together with the other material agencies in what Schrimshaw calls “additive producer[s].” (Schrimshaw 38) “Dark Night of the Soul” thus displays its agency of the material in the way it pushes these ghost effects to the foreground.

This ghost effect is also evident in the use of the Speak & Spell for this last track. The Speak & Spell is an old toy produced by Texas Instruments, although it has long been discontinued. The Speak & Spell was the first mass-produced synthetic voice chip and it was used mainly to teach children how to spell. The Speak & Spell would say a word that the child was then supposed to spell, hearing whether or not he or she got it right. The voice synthesizer was quite simplistic and by today’s standards the timbre comes off as artificial, as there is very little human warmth to the voice synthesizer. However, it is not its capabilities as a voice synthesizer that is the main point here. Instead, the presence of the Speak & Spell in “Dark Night of the Soul” comes in at the bridge of the song, where the digital dust gives way to clear sound production. Then, we hear a string of peculiar crackles and pops in the back of the mix, clearly electronic.

These strange sounds come from a circuit-bending practice known as key ghosting, where three keys are pressed down at the
same time on the Speak and Spell keyboard. Upon pressing a fourth key, the device will produce erratic pitches and timbres, depending on which key is pressed. Depending on the device and its electrical circuits, some key combinations will not produce the ghosting effect, but for those that will, it is in fact possible to play the device as a kind of synthesizer, playing errors and glitches in the hardware, rather than an actual instrument.

Such fascination with residual media is one example of what Simon Reynolds has termed “retromania” — the contemporary obsession pop culture has with its own past. As Reynolds points out, retromania “tends neither to idealise nor sentimentalise the past, but seeks to be amused and charmed by it.” (Reynolds 2011: xxx). Residual media, alongside the album’s digital resurrection of analog instruments and recording practices, are indeed retromaniac obsessions.

But more than that, these residual media practices and objects are also evidence of what Mark Fisher calls “materialized memory.” This materialized memory arises on the “use of crackle, the surface noise made by vinyl. Crackle makes us aware that we are listening to a time that is out of joint; it won’t allow us to fall into the illusion of presence.” (loc 387). Crackle only makes sense as an aesthetic addition in a digital world where we have become accustomed to the absence of crackle. Crackle marks what Fisher calls the “agency of the virtual,” what Blake and Van Elferen refer to as the “secret” of materiality (Blake and Van Elferen 65), which is essentially parallel to Whitehead’s causal efficacy – the album’s residual media impact our musical experience.

In using key ghosting the musicians tap into the materialized memory of the Speak & Spell, employing the potencies of residual media in new ways. We begin to see how Parikka’s “technics of the body” is relevant but with a slight difference: we find in Dark Night of the Soul a technics of the media body. The specific techniques for using the Speak & Spell are essentially subverted and used against it, producing new vibrating sound affects. We hear the past unaware, feel the presence of materialist agencies.

These sounds, then, are ghost effects: autonomous and self-enunciating because the sound is erratic and unpredictable, since it is a glitch. They are, in a word, potencies: powers and potentialities of the material, technological device. Any sound producer is an as-
semblage of material potencies, but key ghosting makes this fact evident in a new way, because key ghosting produces sounds counter to the Speak & Spell’s design. New sonic experiences emerge as the result of key ghosting and if they register as sinister, it is because they are autonomous – we cannot exactly predict the output, even as key ghosting is a deliberate process. Always already contingent on materiality, art may be considered any object that impinges on us and will not rest, despite the fact that it is not directly accessible to us, since the ghost effects are autonomous and self-enunciating.

Ghost effects are affects in that they are present absences, things that escape conscious, cognitive processes, and yet these ghosts linger. As Jacques Derrida has argued “what surpasses the senses still passes before us in the silhouette of the sensuous body … that remains inaccessible to us” (Derrida 2006, 189). For Derrida, this is why any ontology must begin with a hauntology (the word works as a homonymous pun in French). I would rephrase that to say that we must begin with materiality’s agency, what Fisher called the agency of the virtual. Every affect, every encounter, every event begins in the productive encounter of at least two bodies, or entities. These entities need not be human, even both can be the nonhuman bodies of Optigans, Speak & Spells, synthesizers and more. These nonhuman bodies are also affected and how the power to affect, though in no way do they carry embodied emotions.

Significantly, what is at stake here is the fact that materiality grounds experience, as Matthew Fuller argues, while at the same time there is no hierarchical organization in art’s processual encounter; it is rather collective processes occurring inside and outside fluctuating and agitated bodies (Fuller 2005, 63). The Speak & Spell’s circuits are part of this collective and participate with a specific technics of body that interacts with the potencies and capacities of other human and nonhuman bodies and their technics.

The media technologies used to produce the album are every bit as expressive as the musicians involved; at times even more so. While Lynch ostensibly “features” on “Dark Night of the Soul” and “Star Eyes (I Can’t Catch It),” we cannot truly say to have heard Lynch singing. So extreme is the use of vocoder that it is impossible for us to tell where his voice begins and the vocoder stops. It is not that the vocoder simply modulates a pre-existing human voice, but rather that the two vibrating events enter into an assemblage that
includes other actors such as microphone, amplifier, and speaker, not to mention the instruments and the lyrics. Materialities are agents in this assemblage, as is Lynch’s voice.

Another example of *Dark Night of the Soul*’s disruption of boundaries is in the album’s fetishistic use of outdated instruments. Consider the song “Grim Augury” where Vic Chesnutt’s vocals are pushed to the very front of the mix, thick with shadows and extra resonance, while we hear the scratches, fizzes and pops of a gramophone needle and a wriggling melody produced by synthesizers but this time also with an Optigan. The synthesizers push and pull the melody and disturbs the temporal dimension, making time actually perceptible as we can actually hear the notes being dragged out, the timbre shifting in a dream image of a song.

This form of dyschronia is not unusual in recording techniques but the blatant presence here is unusual, again because it disrupts any kind of pretense to a pro-phonographic event before the microphones. Technology here is not like air, but rather like mud or wet clay — something we have to wade through with difficulty and it inevitably slows us down. Yet the warble of synthesizers is not the most disruptive element of the melody. That honor goes to the Optigan. The Optigan is a peculiar keyboard instrument, first released in 1971 but dead already in 1976 due to its poor sound quality and peculiar sound production. Unlike a piano that works by vibrating strings, the Optigan, like other synths, produces sound through the use of pre-recorded optical soundtracks stored on plastic discs loaded into the side of the keyboard. The Optigan, then, does not produce sound but plays back already recorded sound. The various discs available were sound samples recorded by studio musicians. Part of the soundtrack disc would be sustained notes from a particular instrument, while the other part would be a soloist playing chords in different keys. In other words, the Optigan does not play music but instead conjures the performances of earlier musicians – the Optigan plays with ghosts; all synths play with ghosts.

Because of the unusual design of synths in general, notes do not have a limited duration but can play a constant timbre indefinitely. At the same time, the Optigan has a built-in tempo switcher, that can manipulate not just the speed of the notes or chords but also the pitch, since sound is caused by air vibrations. These melodic changes are clearly evident on “Grim Augury,” as most of its musical ex-
pression – as opposed to the vocal performance – derives from the
elongated and meandering notes. All in all, the Optigan stands not
so much as a musical instrument but rather as a temporal instru-
ment, playing time itself. This is the case because even though the
Optigan is electronic, its sound reproduction is analog, so it does
not separate speed from pitch.

While not exactly unusual techniques in sound production, as
Mike Berk points out, “time-stretching, time-compression, and
pitch-shifting were never meant to be foregrounded as audible ef-
fected, or even to be aesthetically pleasing. They were engineered to
be as inaudible as possible in operation,” once again pointing to the
desire for transparency of mediation (Berk 2000: 197). *Dark Night of
the Soul’s* aesthetic pushes mediation to the forefront and allows it
to take on aesthetic significance; most listeners will be unaware of
the presence of the Optigan, since it is such an unusual and rare
instrument, yet to enjoy the song one needs to accept the aesthetic
effect of the Optigan and its dyschronic displacements. This is an
other instance of Whitehead’s perception in the mode of causal ef-
cicacy, where we are unaware of what we perceive, yet it impacts us.

So the Optigan plays slices of time from elsewhere and elsewhen –
sound events of the past inserted into the present, where they do
not belong. This very fact pushes against the entire conception of
event and sounds as events, for as O’Callaghan is at pains to point
out, events are unique, singular, and can occur only once. Other
events may of course occur, but each event is unique and can never
repeat (110-111). Is the slice of time played by the Optigan then a
new event or the repetition of a former event?

For Whitehead, the recurrence of D-flat, for instance, is not a
problem since D-flat is what he calls an “eternal object,” an inex-
haustible resource that never changes and can never be novel (1978,
22-23). We all hear the same D-flat (sound’s material agency) but we
might not all experience it the same way (embodied emotion), nor
can anyone exhaust the D-flat. But the Optigan does not play D-flat
or any other pitch; it plays the past event of a D-flat being played.
The Optigan is an example of a technics of the media body imping-
ing on other bodies in the mode of causal efficacy. For the Optigan
plays the material nonhuman memory of an event, which is White-
head’s very basic definition of perception in the mode of causal ef-
cicacy: “[t]he present moment is constituted by the influx of the
other into that self-identity which is the continued life of the immediate past within the immediacy of the present.” (1967, 181, emphasis in original.)

The Optigan, in a sense, play nothing but samples, even if these samples are not recognizable as belonging to any specific song (which they don’t). However, unlike typical recordings that also attempt to control and limit the future, the Optigan’s past-present-future division is far more complicated since the temporal slices of the past were always meant to generate new and different futures. The future, that is to say the new, is generated by temporally altering the past in the present, thus collapsing time into a vertical pillar, making musical time fluid, which is exploited in this song. The material manipulation of sound through the Optigan is an unusual technique that turns the performance of playing the Optigan into a kind of necromantic augury – collapsing past and future into the present. These slices of time are ghost effects and affects as self-enunciating entities, produced through a technics of the nonhuman body of residual media.

Uncanny Sonic Experience
Sonic experience must be said to be a highly complex assemblage with no clear demarcations or boundaries. One boundary that can be traversed to interesting effect is the temporal boundary. That is to say, old media anticipated a future that never happened, and so still carry immanent potentials that are now fedforward into a different, tangential future. In other words, the locus of past, present and future stops being a linear unfolding and is instead a rupture of old, past potentialities that suddenly gain new actualities. Yet the sonic ghost effects of residual media technologies erupt as sinister resonances because they are out of time. As they drag dead futures into the present, time is out of joint, which sounds uncanny.

Listening to dead media is not simply an archival activity but a haunting experience of hearing what never happened. Listening to *Dark Night of the Soul*, we hear the dead futures of the Optigan. That is to say, we listen to an instrument’s unrealized potentials, the futures that were never actualized. Yet at the same time this is a haunting experience, because we do in fact hear these dead futures. While I have only focused on a few examples here, it should be evident why we can only understand the album through hauntology,
because “a ghost never dies, it remains always to come and to come-back” (Derrida, 2006, 123). The ghost that returns, kicks back, is materiality, the very potencies that are inherent in every object, every assemblage of matter. Matter is not inert, materiality is not distinct from other entities but imbricated in a reciprocal process.

Dark Night of the Soul thus produces ghost effects; effects that are best regarded as intensities that shift and warp affects and agencies inside the soundscape. To listen to the album is to allow dead futures to constitute me for the duration of the encounter, to feel and sense their agencies as integral to me. As affect arises from contact with other material entities, I recognize that my experience is not entirely mine but traversed and haunted by the autonomous agencies of materialities.

References


**Notes**

1 There is a larger discussion here between matter and energy that I do not have space to engage with. The relationship between matter and energy is far from straightforward in common parlance, because we tend to think of materiality as something having mass. In physics, matter has both mass and energy, although either mass or energy may be zero. Fuller’s argument can be rephrased to suggest the instances when matter acts.

2 I put naturally in scare quotes because of course any sound produced by any means is part of nature; what else could it be? However, we tend to distinguish between sounds that are produced by analog processes and electronic processes, considering electronic processes less natural, due to their short cultural history.

3 A quick note on Fisher’s use of the term “virtual” here. He does not use it to suggest something which is immaterial but rather something which has not happened but could have happened. I prefer to stick with the term potential to not muddy the waters of material effects.

4 For more on this relation between singer, microphone, amplifier, speaker and listener, see Blake, Charlie and Van Elferen, Isabella (2015) Sonic media and spectral loops. In: Edwards, Justin D., (ed.) *Technolo-

5 These unrealized potentials are part of every historical instrument that is no longer in wide use, and their reintegration into music production would constitute their own forms of ghost effects.