Other Kinds of Mind There:
Echologies of Psychedelic Sonic Substance

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Abstract

Cognition in extended brain-body music systems becomes especially agile during psychedelic experience, necessitating a sonic rhetoric emphasizing transformative agency. Rooted in the recursive listening spaces of dub, three forms of psychedelic electronica—ambient house, trip-hop and glitch—foster an *echological* sensibility unique to records made largely from the bits and pieces of other recordings. In this article, longform albums representing each of these genres are offered as sonic *pharmakomedia*, pharmacologically activated non-human agencies that sustain psychedelic mind-machine systems. Managing the psychedelic experience by mediating set and setting through music selection is adopted in psychedelic research, therapy sessions and personal practices alike. I consider set and setting in terms of their contributions to a liminal sonic substance that facilitates encounters with non-human agencies. Putting indigenous shamanic practices in conversation with contemporary neuropsychopharmacology, sound studies and psychedelic music production, this article offers a diagnostic inventory of the effects of the sonic substance.

KEYWORDS: psychedelics, dub, ambient house, trip-hop, glitch

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Dub Mechanics

In one of the most exuberant passages of *More Brilliant Than the Sun* (1998)—Kodwo Eshun's pioneering history of Afrofuturist sonic fictions—we arrive at Kingston's Black Ark Studios to catch Lee "Scratch" Perry deep in a dub mix. Optimistically embracing the posthuman with a celebration of the persistence of the synthetic and alien in diasporic Black Atlantic futurisms, Eshun describes the "MythScience of the mixing desk" by which Perry, in the guise of the Ghost Captain, "opens the cybernetics of the studio" (1998: 62). Here's Perry at length:

> I put my mind into the machine and the machine performs reality. Invisible thoughtwaves, you put them into the machine by sending them through the controls and the knobs or you jack it into the jackpanel. . . . The jackpanel is like the brain itself so you got to patch up the brain and make the brain a living man. (Eshun 1998: 62–3)

Figure 1. Lee "Scratch" Perry and Roland Space Echo. *Disco Devil Vol. 2* (2019).

In dynamic interactions between mind and machine, electronic signal flow is a kind of thought-wave, a circuit patch linking the ports of his 16-track Soundcraft mixing desk. It routes sends and returns through effects processors—Perry's classic dubs of the '70s used only the Mutron phase shifter and the Roland Space Echo (fig. 1)—to transform the components of a reggae session before recording the outputs onto a four-track reel-to-reel. Organizing the signal flow makes the audible electronic brain of the Black Ark into "a living man" (Eshun 1998: 63).

This extreme example of what philosopher Joel Krueger calls "musical offloading" (Krueger 2014: 8) would yield Perry a temporary new personality named Pipecock Jackson, and it would eventually lead Perry to burn down Black Ark Studios. Typically, this kind of offloading is a more utilitarian means of allowing music to take over some of the endogenous "organizational and regulative functions" of the brain and nervous system (Krueger 2014: 3–4). When we offload onto music, we "let it do some of the work organizing our emotional responses for us", using this external resource to manage and enhance otherwise interior cognitive and embodied functions. Part of the pleasure that music affords has to do with how it calls out the extended mind. The listener becomes part of "an integrated brain-body music system" of mood regulators that utilize feedback loops between listener and music to sustain itself (Krueger 2014: 4). This requires phasing the feedback of the "brain-body music system" into oscillatory synchronization by way of "neural and behavioral entrainment responses" (Krueger 2014: 9). Bodily and cognitive processes are held by scaffolds of musical affordance, though our recognition of these supports may register as a kind of "letting go" (Krueger 2014: 7).

Lee Perry's experiences of entrainment are extreme, purposeful, exploratory and transformative. When creating a dub, the mixing desk becomes an instrument in its own right. Dubbing from the elements of a reggae or dancehall session, Perry loops drum and bass lines; radically adjusts tone controls to alter the timbre of a source; removes some instruments and voices from the mix altogether, only to send a fragment of them echoing through the main mix; sends source tracks back through effects processors to echo, reverberate, delay and distort them. In Eshun's account, as it weaves the mind deeply into the extended cognitive affordance, "Dub demands symbiosis that externalizes the mind, drastically reconfiguring the human producer into a machine being, an audio cyborg" (1998: 63). It's a classic cannabis trope. One of the decadent French poet Charles Baudelaire's greatest fears around hashish-eating was that it would turn him into "a sort of thinking machine" (1851: 74). In Walter Benjamin's hashish protocols, the philosopher agonizes between hashish's capacity to trigger profane illumination and its contrary tendency to freeze thinking into a photographic still; in either case, a once "unconsciously penetrated space is substituted for a space consciously explored" (1935: 236–7). Media and literary theorists Friedrich Kittler and Sadie Plant both suggest that modernity is in many ways a narrative of emergent technical media and mind-manifesting chemical substances chasing each other, remapping human consciousness and posing new ways of being in the world at a steady clip (Plant 1999: 52–3). I suggest that hashish and the camera are parts of a complex *pharmakomedia* that affords a psychiatric perception of cognitive imbrication in emerging technologies.

For his part, Perry activates the affordance of the mixing desk by blowing clouds of ganja smoke into its circuitry before mixing a dub. A symbiotic intermediation that is afforded by both technological and chemical substances, the dub is a form of "sonic substance", the lifeforce of its studio incubator (Brabec de Mori 2015: 25). Perry: "I see the studio must be like a living thing, a life itself. The machine must be live and intelligent". The jackpanel is the brain, patched in a way that it too can be animated as part of the integrated brain-body music system. "You are listenin' to a machine. I imitate human being, I'm a machine being, I don't work with human beings" (Eshun 1998: 63). The mixing desk is more than a receiver of thought signals, not only the brain of the whole studio, but an autonomous cybernetic entity that emerges within the smoky interstices of the dub and propels the listener into space. "The sound that I get out of the Black Ark studio", Perry explains, "I don't really get it out of no other studio. It was like a space craft. You could hear space in the tracks" (Eshun 1998: 64). This experience of space is at once tactile, sonic, networked, cosmic and earthy. Perry's rituals go beyond smoke to include candle wax and ashes dripped and flicked into the control board. He buries tapes in the ground to let soil condition them and materially erode the recordings, disinters them and feeds them back into the echo, reverb and delay effects patched into the console. "When you sculpt space with the mixing desk", Eshun writes about Perry's dubs, "these technical effects—gate and reverb, echo and flange—are routes through a network of volumes, doorways and tunnels connecting spatial architectures" (Eshun 1998: 63). As Ghost Captain, Perry navigates the domain of the dead. "So me join the ghost squad longtime and them notice me as the Ghost Captain. I am the Ghost Captain" (Eshun 1998: 65). An entire acoustic ecology of echoes—an *echology* unique to recordings made from other recordings—springs into existence, riddled with gateways to other worlds.

Anthropologist Bernd Brabec de Mori proposes an indigenous model of musical affordance that accommodates the complex auditory system of Lee Perry's mixing console. I am eager to bring these sound worlds together to articulate the relationship between psychedelic musical affordance and living sonic technologies and to see how these might, in turn, echo each other. Healing songs of the Peruvian Amazon, Brabec de Mori writes, amount to "non-human machines" that bridge interior and exterior realities (2015: 35). They are active even when they are silent. Brabec de Mori's work with Shipibo-Conibo healers documents a form of silent song that offers a unique way of thinking about echological sound systems "on the other side" of cognitively extended, substantively afforded experience. As Brabec de Mori builds on Taussig's prior field work in the same region of the Amazon, circular logics of copying come into play:

> . . . in most indigenous ontologies a song already exists before it is being sung. . . . The song may be owned by a spirit or linger in some substance before it is obtained by the chanter. If the song existed beforehand, it is the song that brings into being the chanter who brings into being the spirits that previously brought the song into being. (2015: 34)

In shamanic sessions, the "singing healer actively and purposefully manipulates the 'substance' of this spirit world, its landscapes, its beings"—the various "musical or other sonic entities [that] materialise 'on the other side'"—"including powerful primordial deities as well as the 'souls' of such interesting things like airplanes, the sciences, space craft, X-rays, jaguars, clouds, rivers (these look like great anacondas)" (Brabec de Mori 2015: 36–7). When the healer changes the voice "here"—the way of singing, the timbre and melody—it leads to "a material transformation of beings" (including the singer) and "the environment 'there'" (Brabec de Mori 2015: 37). Shamanic songs multiply worlds in moments of metamorphosis and transmutation (Brabec de Mori 2015: 35, 36). Effects of sonic substances are transferred to human bodies through songs and musical performance, audible as well as inaudible, "from a chain of mental representations via performed sequences of sound into non-human agency". "This worldly" pre-echoes, if you will—the value of sounds *here* measured in terms of their efficacy *there*—are assembled for transmission and reception in the spirit domain (Brabec de Mori 2015: 36).

The effectiveness of medicinal substances depends upon the healer imbuing the substance with a song that the shaman sings or whistles. Brabec de Mori explains that the

> . . . song may be for instructing, negotiating with, or repulsing non-human persons, like animals, spirits, or ancestors. Magical singing is also effective by singing directly to a client. . . . The singers' voices are understood as a substance that remains in the body. (2015: 25)

Without direct transmission of the song, remedies composed of "vegetal, animal, or inorganic" materials are ineffectual on their own. They require the supplement of another kind of substance, one "usually (although rather arbitrarily) understood as intangible: sound" (Brabec de Mori 2015: 25). The sonic pharmakomedia of the Shipibo-Conibo utilizes tobacco smoke to make breath and song visible in healing ceremonies, giving them substance by creating a kind of "materialized sound" (Brabec de Mori 2015: 28). Within this acoustic ecology of healing—and harming, for like any *pharmakon*, the sonic substance can be a poison as well as a cure—sound gives substance to otherwise inert materials (Brabec de Mori 2015: 29). But how does sound give substance to other sounds, and so make a system of them?

Getting electronic circuits high and in sync with his own chemically extended cognition, Lee Perry activates the sonic substance at work in the mind-machine of Ghost Captain and the mixing desk. Smoke substantiates sound's presence as media of the man and the machine. For its depiction of spirit worlds rippled and shaped by the sequencing of the sonic components of indigenous pharmakomedia, I treat Brabec de Mori's work here as a model for the *echological* forms of novel listening experiences that dub affords. Dub echologies have clearly nurtured "sampladelic" electronic dance cultures (Reynolds 1999: 41). In the following pages, I plan to develop an increasingly psychedelic extended mind-machine sound system built on some impressions of LPs by The KLF, the Orb, Space (Jimmy Cauty), Future Sound of London, Boards of Canada, and Flying Lotus. This is

not a comprehensive discographic project, and the level of detail will vary as we expand into the delirious, hallucinatory splay of reference materials common to sample-rich digital music. Grouping these together as "nanomedia", St John captures the subtle scale at which such cognitive sonic affordances thread together vastly distributed domains of auditory experience and reference (2012: 101).

Accessing the echologies of sampladelic nanomedia, these records facilitate encounters with the non-human agencies that Brabec de Mori attributes to Shipibo-Conibo ways of listening, and which I consider a peak of psychedelic sessions. I want to be wary of appropriative elisions or extractions that oversimplify differences between indigenous sonic practices and Western cultural traditions (Robinson 2020: 5, 14). The fact remains, however, that psychedelic listening experiences are not adequately accounted for by either Western musicology and sound studies or neuropsychopharmacology. Where I find Brabec de Mori's work particularly useful is its investigation of "silent sounds"—hearing sounds, that is, beyond the audible "voices that are not present as sonic waves and cannot be recorded or measured by technical devices" (2015: 30). The model of substance-based listening that Brabec de Mori proposes necessitates a conflict with the work of composer and theorist R. Murray Schafer, whose work pathologizes our relationship to recorded phenomena so far as to make it a form of aberrant behavior. Schafer bemoans the "schizophonic" split between sound source and its recorded copy that strikes at the very core of our identity and relationship to the world around us through the recorded silent sound artifacts that we carry around inside of our heads. Tuning into and receiving non-human agencies already active in the sonic substance feeds back into the afforded mind, cascading into an encounter with the extended mind, even though it isn't always clear whose mind one finds there.

"So make gardens, and eat the fruit of them, them. And they shall also make gardens, and eat the fruit of them".

Since the late 1980s, the chill-out zones of nightclubs and raves have provided a place of respite, somewhere you could go to come down from the hi-energy and fast-tempos of the house music in the main room, and from the drugs if they were getting out of hand. In a chill-out room, people can hang out, talk and actually hear each other. To encourage this chilled-out mindset, a new form of music called "ambient house" emerged that is closely associated with the UK house scene. DJs and producers Alex Paterson, Jimmy Cauty and Youth—members of The Orb and The KLF—favored beatless, though not necessarily rhythmless and un-sequenced, music. The live mixes were a collage form that incorporated bits of ambient music, Krautrock, *Kosmische Musik*, Berlin School Electronic, New Age and analog space music, nature soundscape records, clips from TV shows, films and other media.[1] As the muffled residue of beats from the main venue thudded into the chill-out room, a distant, reverberant, dubby rhythm pulsed beneath the soundscapes, bringing a warm timbral floor to the splashes of chilly synths, guitar sequences ripped from old '70s space rock, maybe a bit of dialogue from a NASA documentary. All of this suggested a new way to make records. Paterson, Cauty, Youth and soon many others began producing music

that captured this sound: The KLF's <u>Chill Out</u> and Jimmy Cauty's <u>Space</u>, both from 1990; The Orb's 1991 album, <u>The Orb's Adventures Beyond the Ultraworld</u> (1991); and 1994's <u>Lifeforms</u>, by The Future Sound of London (see fig. 2).

Figure 2. Four years of Ambient House:
Chill Out (1990), *Space* (1990), *The Orb's Adventures Beyond the Ultraworld* (1991), and *Lifeforms* (1994).

By the middle of the decade, the combination of downtempo beats, cinematic and spacious atmospheric sound design, sparse instrumentation, electronic and digital sounds and spoken dialogue rendered ambient house almost indistinguishable from adjacent forms like IDM, experimental, ambient techno and acid house. I favor "ambient house" because the term evokes sonic setting in ways that the others do not. But all these post-house genres—described as "armchair techno" and "dance music for the sedentary and stay-at-home"—in fact afford homely ways of listening to electronic music with beats (Reynolds 1999: 181). While the language of "intelligence" is forward looking—to the "artificial intelligence" and pseudo-machine language that appears in tracks by Autechre and Aphex Twin—it also recalls the cosmic "head" music of the late-1960s, progressive rock of the 1970s, 1980s ambient and New Age music (Reynolds 1999: 182–3). With its roots in the Chicago warehouse scene suggesting spaces of storage but also of appropriation, ambient house provides a more than symbolic way to think of musical affordance as storing resources for the emotional and imaginal mind. Warp label co-founder Steve Beckett explains that this was music specifically made for coming down to. Each CD in their "Artificial Intelligence" series would be a whole album to sit and listen to, like Kraftwerk's *Autobahn* or a Pink Floyd record. It would appeal to listeners wanting something to sink into after the party, "when you start hearing the really interesting, mind-blowing stuff. If you're coming down off [drugs], you can get really lost in your own thoughts and concentrate on the music, pay more attention to detail" (Reynolds 1999: 183). Ambient house extends cognition into a listening space that is electronically networked, informationally rich, regulating the body with a come-down energy while providing the head a space for intelligent play, information processing and synthesis, creative juxtaposition, imagination and engaged, attentive listening.

Most of what you hear on an ambient house record is second-hand. Recorded or digitally snipped from already existing recordings, source tracks are played at varying speeds, processed through effects and combined in new ways to become a journey. These are iconic "sampladelic" works. In *Generation Ecstasy*, Simon Reynolds maps the "hallucinogenres" of electronic music onto a "digital psychedelia" because the recording innovations of the late-1960s led rock away from "naturalistic" to "antinaturalistic" recording techniques on the pathway to newer, sample-based forms.[2] Throughout the original psychedelic era, the record becomes an artform of multitracking, overdubbing, slowing down or speeding up sounds, chopping tapes up and reassembling them into sonic collages, playing tapes backwards, piling on effects processes and so on. This leads Reynolds to position "sampladelia" as "a general rubric for electronic dance music's revolutionary implications: its radical break with the ideals of real-time interactive playing and natural acoustic space that still govern most music making" (1999: 41).

Chill Out, *Space*, *The Orb's Adventures Beyond the Ultraworld* and *Lifeforms* are all highly narrative albums. The first takes the listener on a long night drive, the next two take us through outer space and the last seems to take place in some kind of cyborg breeding flotation device. These are presented at epic scale—continuous mixes without track markers on the CDs, double LP, double CD sets. Compared to the 12" single-orientation of house and other dance music, ambient house records bring back long-form, psychedelic and progressive tendencies. Pink Floyd is ever-present; the cover of *Chill Out* a nod to the pastoral gatefold of *Atom Heart Mother* (1970), while The Orb's "Back Side of the Moon" is a more obviously cheeky homage. More substantively, the dense interweaving of sampled voices and sound effects with extended, musically atmospheric sequences and narrative concepts on Pink Floyd's *Dark Side of the Moon* (1973) and *Wish You Were Here* (1975) are key roadmaps to ambient house. All the same, ambient house differs significantly from prog. The almost total samplification and digitization of the "instrument" points ambient house squarely away from prog rock signatures like extended melodic development, improvisation and virtuosic soloing. Drums are drum machines or looped samples. There are no lead vocals. But there are plenty of voices.

The distant sound of Elvis singing "In the Ghetto" on *Chill Out*'s <u>"Elvis On The Radio, Steel Guitar In My Soul"</u> is one of the most faraway, spectral sounds on the album, a copy of a copy populating the spacious cosmic terrain of the late-night road trip. Max von Sydow as Emperor Ming from the 1980's *Flash Gordon* movie launches The Orb's <u>"Earth (Gaia)"</u>. Slim Pickens makes a brief, hilarious cameo in <u>"Supernova at the End of the Universe"</u>, his Major "King" Kong of *Dr. Strangelove* hollering "Ya-Hoo!" as the rocket accelerates. Apollo mission control chatter crops up repeatedly on *Adventures Beyond the Ultraworld*. "Astronauts report it feels good", from "Supernova", is used again in a chopped-up, skittering replay throughout the next track, <u>"Back Side of the Moon"</u>. Such inventive "sampladelia lures the listeners into a sound world honeycombed with chambers that each have their own acoustics"—routes through a network of volumes, doorways and tunnels connecting spatial architectures—accessing cosmic and spectral pockets (Reynolds 1999:

44). Though often "sufficiently brief or arcane as to preclude triggering specific pop-cultural associations", samples afford access to what Brabec de Mori calls the spirit world "on the other side" (2015: 43, 36). Reynolds also suggests that sampling intensifies, amplifies and multiplies the "inherent supernaturalism" of the record (2011: 313). In *Retromania*, his thinking about samples has taken a notably more somber turn:

> Woven out of looped moments that are each like portals to far-flung times and places, the sample collage creates a musical event that never happened; a mixture of time-travel and séance. Sampling involves using recordings to make new recordings; it's the musical art of ghost co-ordination and ghost arrangement. (2011: 313–14)

As it evolves over the course of his critical projects, Reynolds' "sampladelia" describes a powerful crisis of the phonographic orientation that has largely defined rock and pop music since the 1950s.

Reynolds turns to the work of Theodore Gracyk on rock music, noting that putatively naturalistic records have long involved the use of multitrack consoles for overdubbing, fixing mistakes and adding double-tracked layers to give more presence to voice and instrumentation (Reynolds 2011: 44). Gracyk's *Rhythm and Noise* regards recording (the act) and recordings (the single or album) as the very essence of rock, "a tradition of popular music whose creation and dissemination centers on recording technology" (1996: 1). Records themselves are "the primary medium for the rock tradition"; Gracyk shows how by the mid-1960s, musicians like Dylan were chasing a "sound", and even elements of composition and performance were intimately related to how they would eventually come across on record (1996: 51, 12). What might appear on record to be "originating performances" are in fact (re)constructed and "identified with specific works only in retrospect" (Grayck 1996: 50). But Reynolds reads Gracyk only up to the point that "rock phonography uses multiple takes and overdubs to create a quasi-event, something that never 'happened'", and ends up concluding that "what you hear on record usually sounds *plausible* as a real-time occurrence" (1999: 44). "Sampladelia goes further", Reynolds announces; "it layers and concatenates musical fragments from different eras, genres and places to create a time-warping pseudo-event, something that could never possibly have happened. Different acoustic spaces and recording 'auras' are forced into uncanny adjacency" (1999: 44). Musical forms like ambient house trigger a "sampladelic supernova" in which all sorts of recorded sounds from many different time periods and places and sources and media collide into a decontextualized flow of the "last eighty years of pan-global recorded sound" (1999: 45).

This is precisely what sound ecologist R. Murray Schafer had always feared would happen! Schafer found something fundamentally pathological in the splitting of sound from source that phonographic recording instantiates. The recorded object is divorced from its time and place of origin, from its cause and hence from its natural lifecycle of fading to silence. Schafer coins "schizophonia" in 1969 to describe the consequences of this pathology. Electroacoustically reproducing recorded sound over loudspeakers or headphones triggers a further schizophonic reaction that rips the listener from their

natural acoustic surroundings. The problem that Schafer diagnoses is a glut of recorded artifacts. "A record or tape collection", he complains—his language anticipating Reynold's own increasingly anxious analysis of sampladelia—"may contain items from widely diverse cultures and historical periods in what would seem to a person from any century but our own, a meaningless and surrealistic juxtaposition" (Schafer 1993: 90, 273). Recording and playback thus precipitate a kind of psychoacoustic geolocation crisis. "I employ this 'nervous' word in order to dramatize the aberrational effect of this twentieth-century development", he explains in the glossary to *The Soundscape* (1993: 273). Schafer relates schizophonia to schizophrenia specifically to "convey the same sense of aberration and drama" (1993: 91). This triggers Schafer's prescriptive turn toward the recuperative auditory ecology of the "soundscape" and sonic healing, proposing noise mitigation and acoustic environmentalism as curative forms of compositional practice.

Gracyk's ideas about the constructed nature of the recorded artifact suggest an alternative to the pathological perspective outlined by Schafer and reinforced by Reynolds' growing concern with "retro" trends in music. Gracyk regards the record largely as an integrative psychoacoustic experience. From a listener's perspective, "*aesthetic qualities* and *meanings* emerge from the *materials*" (Grayck 1996: 72). Reynolds makes the mistake of associating "feel" solely with the work of "seasoned" musicians playing live and interacting with each other. Sampladelia abandons "all the elements of 'feel': the inflections and supple rhythmic interplay that communicates the fact that flesh-and-blood humans physically shaped this sound together in a real acoustic space" while intensifying the "*trompe l'oreille* side of psychedelia", with its "fictitious psycho-acoustic space", weird tones and textures with "no ready real-world referents" (Reynolds 1999: 44). While acknowledging that 1960s rock recordings are largely studio reconstructions from multiple sessions and post-production processing, Reynolds goes astray by assuming that the recordings that Gracyk describes are inherently livelier while sample-based work is dead, or rather, undead. After repeated emphasis on the "flesh-and-blood human" players making live music, Reynolds' prose takes a grotesque turn full of vivisection and the reanimated corpses of "dead sound" (1999: 45). What he has missed in this moment of schizophonic crisis is the novel form of extended cognition that the affordance-rich resources of ambient house records provide. Ambient house celebrates rather than pathologizes schizophonic processes.

"Astronauts report it feels good"

The uncertainty of exactly what "it" is that feels good is what makes this oft-sampled bit of Apollo 11 ground control chatter so charming. In context, it has to do with all systems being go for liftoff (NASA 2007). Heard in The Orb's "Supernova", then again in "Back Side of the Moon", whatever "it" *is* is precisely unspeakable as such, delivered out of context but ultimately reassuring us that the trip is going as planned. This happens as the narrative of *The Orb's Adventures Beyond the Ultraworld* leaves behind the spacious skies with their "little fluffy clouds" and the gardens of Earth (Gaia), lifting off toward the space beyond the moon into dimensions unknown. "It" also feels like a drug reference and works as a form of psychedelic double-speak.

Electronic music has long exhibited a zeal for source content pulled from film, TV shows, NASA archives, nature programs and space documentaries. Chopped up, fragmented, re-sequenced and looped into on-flowing DJ sets, samples work within the echology of the mix to facilitate "variant *projects of the self*" (St John 2012: 101). Concerned with the transformational potential of sampladelic music, St John's "Aliens Are Us" acts out its premise, reveling in the mycelial networking among electronic dance music tracks; the text occasionally runs wild with extended transcriptions of spoken word samples (2013: 192–3). It describes a culture of "self-shamanising" producers who regard media recordings as "an ever-renewable pool of spiritual resources available to the self", extracting "the tropes and mythographies of popular culture" from the "floating fragments" of pop "detritus", and then programming them into scripts for gnosis and liminal experience (St John 2013: 199). Given their scale as fragments of pop culture and media embedded in a larger mix or track, St John calls these "nanomedia", positioning them on the far side of the hypermediating affordances provided in electronic dance settings (2013: 101). The DJ or producer navigates a larger mediaverse of on-demand resources pulled from information-rich worlds, extracting nano-scaled materials and stitching them into a singular, immersive experience that sustains the extended mind while it synchronizes the moving body.

Listening extends cognition into the realms of nanomedia. Recall "the souls of such interesting things as airplanes, the sciences, space craft, X-rays, jaguars, clouds, rivers (these look like great anacondas)" that Brabec de Mori describes, and we have another potential indigenous parallel between sonic substance and sampledelic sound cultures (2015: 36–7). St John documents how psychedelic electronica uses space-related samples, evoking "the liminal conditions of space travel" to facilitate the avatar's quest and hero's journey through musical affordance (2013: 186). At once "external and internal, extraterrestrial and psychosomatic", the uncanny valley of "the psychedelic imaginary" directs our movement "farther from routine consciousness (and one's home)" (St John 2013: 189). Space travel is a narrative device for inner travail, an infoshamanic initiation into the spatiotemporal domains of film, television series, documentaries, computer games, NASA radio dialogue, public broadcast and open access media content. These are very intense, highly reiterative and recursive listening experiences that are other-producing, mind-manifesting and self-sustaining. These producers navigate the echologies of pharmakomedia in order to modulate "indeterminate lines between human and alien, the material and the spiritual, consciousness and unconsciousness" as qualities of personhood and self-expression (St John 2013: 199).

But why do astronauts report that it feels good? The usefulness of music is a given of contemporary psychedelic research, while therapeutic applications consider music one of the most crucial elements for positive, transformative psychedelic experience. Music is the uniter of set and setting, an intermediary mechanism for managing space, facilitating novel mindstates and narrating journeys of self-encounter and healing. One report published in the *International Review of Psychiatry* succinctly concludes: "Music appears to influence the efficacy of therapy significantly, through modulating emotion, including the facilitating of mystical experiences, and through supporting autobiographical processes" (Barrett, Preller

and Kaelen 2018: 356). Contemporary work in the field generally reinforces the pioneering research of Helen Bonny and Walter Pahnke. Their 1972 guidebook for psychedelic playlist design, "The Use of Music in Psychedelic (LSD) Psychotherapy" recommends specific musical pieces for guided sessions, arcing the trajectory of the trip around very specific affective and cognitive affordances. Bonny and Pahnke aim for a therapeutic attunement—Krueger's oscillatory entrainment or Perry's jacking into the jack panel—meant to synchronize what is going on in the mind of the listener and the more-or-less consistent pharmacological apparatus. Assuming a series of mostly reliable, discrete stages, psychedelic therapies integrate music as an affordance to help shape, direct and script the intense psychedelic experience.

At the same time as music shapes the trajectories of psychedelic experience, psychedelics afford a stronger emotional weight and meaningfulness toward the music that we listen to while on them. Psychedelics, especially LSD, enhance or increase the significance of the music we listen to—"I've been waiting for music like this all my life"—during a session (The Orb 1991). Research recently conducted by Katrin Preller et al. at the University of Zurich set out to track the "neuropharmacology of personal relevance processing" to better understand LSD's effects on "the fabric of meaning" (2017: 451). Their methodology involved participants listening to music while on LSD. The researchers sought to understand how healthy persons create meaning in response to the world around them, and they sought to model "abnormalities in the attribution of personal relevance to sensory experiences" characteristic of several psychiatric disorders (Preller et al. 2017: 451). Using a set of songs of varying familiarity for the listener undergoing the study, researchers focused on the mechanistic orientation (both neurochemical and anatomical features) of the brain as it encountered a mixture of personally meaningful and previously meaningless stimuli. The researchers identified a key serotonin receptor potentially involved in "dysfunctional personal relevance attribution", which is characteristic of psychiatric disorders like addiction and schizophrenia (Preller et al. 2017: 453). The outcomes of Preller's project demonstrate that, when under the influence of LSD, previously meaningful music remained meaningful, and the researchers were able to map areas of the brain in which this connection was apparent. The researchers also found that participants' encounters with music previously deemed neutral or meaningless became more significant for those on LSD. Productive LSD therapies make use of an over-attribution of personal meaningfulness to music by stimulating the relevant serotonin receptor (Preller et al. 2017: 454). These results align with Mendel Kaelen et al.'s (2015) work on LSD's enhancement of the emotional response to music. Moreover, music acts as the "hidden therapist" indispensable to successful psychedelic treatments by way of non-human agency (Kaelen et al. 2018: 505).

Activated as sonic substance, music and song become non-human agencies in indigenous healing practices. Among the Shipibo-Conibo, musical affordance includes negotiations with "one or more implied, virtual agents", "a virtual persona, that exists 'within' the music". Brabec de Mori calls these "sonic beings", and he describes a mode of "enchanted listening" that endows the listener "with the faculty of experiencing the effects of interactions, summons,

transformations, etc. of those elements that are . . . present within, and only within, the hearing space construed by the music" (Brabec de Mori 2017: 187). This space of enchanted listening, where aesthetics and meaning are emergent properties of the listening encounter, is an indigenous therapeutic musical affordance. It extends the emotional scaffolding of the extended mind into greater degrees of structural novelty and, perhaps more significantly, strangeness and difference. By forestalling what Krueger calls the "independent oscillatory processes" that tend toward synchronization and entrainment, the indigenous models that Brabec de Mori depicts multiply non-human agencies through the sonic substance (Krueger 2014: 3). Each nanomedia-scaled affordance is enriched through substantive encounter with other nanomedia-scaled affordances and makes a world of them—"And they shall also make gardens, and eat the fruit of them"—triggering at once substantive, additive, synthetic and integrated echological reiterations of the "dynamic, two-way relation of continuous reciprocal causation" (The Orb 1991; Krueger 2014: 7). Increased affective relevance grows with each conceptually synchronized sample. Listening among the Shipibo-Conibo is operative at the nanomedia scale—"X-rays jaguar rivers like anaconda"—as invisible listeners navigating "over there" negotiate with non-human musical agencies that will lead you safely from one world to another.

"Orange"

There are several sampled voices on Boards of Canada's <u>Music Has the Right to Children</u> (1998) that I can call up by rote and hear play more or less accurately in my mind's ear. A few come to me unbidden. "I love you" stands out. Its effect has less to do with the words themselves than the way that they are enunciated, repeated against a tinkling background in a childish, maybe alien voice, with an occasionally concerning change in affect. None sound quite as fully bodied in my mind as the repetition of the word "Orange" heard throughout <u>"Aquarius"</u>. This phrase, this precise snippet of recorded sound, pops into my head with some frequency, and it is always welcome. I think of it as a helper spirit come to say hello—well, "orange"—and I've learned to take its popping into my head as an opportunity to ground myself in the return to my experience of myself. Of course, it helps that "Aquarius" is one of the most openly joyous moments Boards of Canada have ever produced. The retro funk groove that the duo lock into, the slappy, stepping bassline, the glittering synth glissandos, the child's laughter, the female voice counting, all creates a very nostalgic situation for me. The flashback is a highly animated experience, an amalgam of visual and sonic effects pulled from pop educational PBS shows like *Sesame Street* and *The Electric Company*. The song recalls the hyper-episodic structure of these shows, which at any moment could break into a shortform animation or some such, often with a bit of groovy rhythm attached. This detailed, personal association is part of a common cultural imaginary propped up by the Children's Television Workshop, PBS and Film Boards of Canada, all exploited to great effect by the trip-hop duo that took their name from the latter.

Marcus Eoin and Mike Sandison have created a significant discography of psychedelic records that explore the relationship between memory, media, time travel, nostalgia, culture

and identity through judicious integration of sampled nanomedia. The manipulation of the textures of their samples provides the most transportative qualities of their albums. Marcus Eoin reflects on their sound with Rob Young of *The Wire*:

> There are textures in what we try to do, which borrow from certain sounds or eras . . . to trigger something, almost a cascade. It's like a memory that someone has—even though it's artificial, they never even had the memory; it's just you're ageing a song. And then people feel, is that something familiar I knew from years ago? (Young 2005: 42)

In a circumvention of Reynolds' sampladelia, which involves the extraction of samples from actual 1960s and 1970s recordings, Boards of Canada tracks often only seem to come from earlier media. The melodic loops of instruments and fragments of voices cannot be detangled from the way they sound, which typically suggests a warped, flanging, flawed recording and playback medium. Boards of Canada's album art features images that are prismatic, overly saturated, with photos of families and children, faces erased or blurred, artificially aged to reveal weird auras and visual artifacts (fig. 3).

Figure 3. Back cover of Boards of Canada, *The Campfire Headphase* (2005).

Their sound is likewise characterized by refractive processes, deteriorating moments of sonic self-reflections scattered and distorted across time. "It's not so much that this persistence of the past inside the present is the subject of the record", Simon Reynolds (2018) muses in his Pitchfork retrospective, "as that it's the *substance* out of which Boards of Canada weave their music, its spectral warp-and-weft".

Mike Sandison also describes an imaginary regression to an earlier time. He captures the qualities, the feel of the recorded sound of that time before reworking a way back to an alternate contemporary reality of sound-making possibilities now reshaped by the historical impact of this variant universe. Whew. It is twisted and kaleidoscopic to the point that I am not sure Boards of Canada are even in our timeline anymore. In Sandison's words:

> How about just stop where we are, and let's just for a minute try and backtrack a way up here, and imagine what would have happened if, in 1982, music had taken this other branch on this side, and where would it be now, and what would it be sounding like now? (Young 2005: 46)

Sonic deep fakes proliferate as Eoin and Sandison record their own instruments—keyboards, drums and voices—and integrate reverb, delays and echoes to artificially age the recordings. They then create samples based on these recordings for their own mixed tracks. These combine with what may or may not be actual samples of voices from old TV shows, films and commercials. The "network of volumes, doorways and tunnels" that Eshun attributes to Perry's dub mix are used here to time travel or tune into broadcasts from alternate universes. My attention is always drawn to the mass media "library music" tracks, the short interludes like "Bocuma", station IDs, sound-logos, commercial breaks like "Kaini Industries", "Roygbiv", and "Wildlife Analysis". The accumulative effect is one of late-night, post-acid peak channel surfing.

More imagined than actual, the nanomedia on a Boards of Canada track are sonic vaporware, packaging for a virtual product that will never exist. The feel of tripping and flipping through imaginary late-night cable programs takes a more sinister turn on Geogaddi (2002). Its edgy, hypnogogic journey is peppered with enough late-night conspiracy theories to make even the most benign nature program, infomercial and random reruns feel suspect and dangerous. The psychedelic, prismatic quality of mediated time itself results in the muffled shimmer of Boards of Canada's sound, its lack of tonal stability and what their interviewer Rob Young calls its "eccentric orbits" (2005: 44). "In conversation", Young notes, "they'll often talk about chords coming in at weird angles and diagonals, zapping melodic expectations" (2005: 44). This is a classic psychedelic trope that echoes Tommy Hall of the 13th Floor Elevators, who proclaimed in 1966 that the band's first album aimed at "designing geometric states of mind" (Drummond 2007: 296). Given all this weird geometry, Boards of Canada records make me feel like I'm trying somewhat unsuccessfully to tune into something, to get clearer reception of a signal from somewhere ill-defined, necessitating an endless tweaking and adjusting and filtering and clarifying and ultimately losing it and never finding my way back.

Geogaddi continually pulls the ear deeper into the sensorium, making us listen more deeply, attend to hidden details, listen to ourselves listening. Sound paisleys form here through this reiterative action, complex, fractal scaffolds of musical affordances that spiral into each other (fig. 4).

Figure 4. Boards of Canada, *Geogaddi* (2002). Front cover photo by Peter Iain Campbell.

This feedback feel repeatedly calls attention to itself when we listen to records thought to hold and encode secret information by way of backward masking, time axis manipulation and degradation of signal. *Geogaddi* features samples buried deep in the mix, or played backwards or at the wrong speed, and they can only be discerned by manipulating the material of the recordings themselves. Reddit and other online communities devoted to Boards of Canada are driven by listeners seeking to decode the occult messages about

everything from the Branch Davidians to the dangers of children's television programs. Some clues are hidden so deep in the mix that the audio must be digitized and run through a spectrographic analyzer, where visual patterns are revealed.

Sound historian Joe Banks has delved into the world of electronic voice phenomena and satanic messages allegedly buried in heavy metal records, and his insights apply here. His study of the evangelical religious right of the 1980s paints images of Bible Belt preachers scouring through the local Sam Goody's metal records section in search of secretly encoded satanic commands. Once you get into backward masking and hidden hypnotic messaging, electronic recording technologies only "help construct, rationalize and validate a fundamentally anti-scientific belief system" (Banks 2001: 77). Banks describes a form of Rorschach Audio that instantiates "a positive feedback loop, in which primordial superstitions about the afterlife are sufficiently powerful to inspire the active creation of EVP" (2001: 77). As Gracyk suspected, these manifest as "*aesthetic qualities* and *meanings* [that] emerge from the *materials*" (1996: 72). Psychedelic pharmakomedia afford new ways of listening that trigger a conceptual cascade of cognitive feedback throughout the mind-music system. "One of the peculiarities of consciousness", rhetorician Richard Doyle explains, "is the effect that it can have on itself—it cannot be observed without changing in kind; consciousness can attend to itself, 'feedback,' and in attending, it is altered" (2011: 159). This cognitive feedback occurs in a profound moment of sonic "ecodelic" experience—a realization of our embeddedness in a dense, living information system.

Boards of Canada extend into the equally vast, living information system of nanomedia artifacts that afford the mind of the self-shamanizing listener. Steeped in the aural content and feel of the media-fueled milieu of popular science, conspiracy theory and disinformation, the psychedelic sound systems that Boards of Canada develop back-track to the sonic textures of the 1970s and 1980s in order to trigger an "affective synchrony" (Krueger 2014: 3). Boards of Canada extend cognition through complex kaleidoscopes of sound—refractive, reiterative, recursive and recombinant—so that the mind, in attending to itself, alters itself. For Eoin and Sandinson, preparing new projects entails a return to one of their earliest recordings, "Turquoise Hexagon Sun". They must relearn it, rebuild it, get it back into their repertoire, replicate its feel again, remember who they once were. It's a magic circle of return and renewal. "For us", Eoin explains, "'Turquoise Hexagon Sun' always returns us to a zone where we can throw off the baggage and begin again" (Young 2005: 42).

"Hold up, hold up, I bet you thinking that we dead"

Simon Reynolds worries that sampling is a system of diminishing returns. Though concerned in his early work that a sample might be a kind of undead, he valorizes sampladelic forms because they "represent the apotheosis of rock's interest in sound in itself (timbre, effects) and virtual space (unrealistic acoustics)" (Reynolds 1999: 44). But by *Retromania*, Reynolds frets: was there already nothing "rich enough, nourishing enough—which is to

say, sufficiently non-derivative—to sustain future forms of revivalism and retro? Surely, at a certain point, recycling will just degrade the material beyond the point that further use-value can be extracted" (2011: 424). Brabec de Mori also associates music with nutrition, noting that "powerful songs stem from powerful 'diets' where access to or communication with powerful entities was established" (2015: 29). The notion of music as cognitive nourishment has of course been a mainstay of psychedelic popular music since Grace Slick exhorted us in 1967 to "feed your head" in the rousing final lines of "White Rabbit". Now, Steven Ellison's Brainfeeder label echoes and updates the down-the-rabbit hole psychedelic journey with a roster of experimental, glitch, hip-hop, neo-soul and funk records. I hear much of the label's output, and Flying Lotus's records in particular, as a contemporary reflection on integrated brain-body music systems that takes stock of the self-shamanizing potential of contemporary sampladelic echologies.

Glitch "disrupts the flavor a little bit" (Beta 2014). Ellison is chatting here in 2014 with *The Fader* about his latest LP, You're Dead! (2014), and this shift from nourishment to flavor is a telling one. Driving around LA listening to George Duke records, Ellison and his frequent collaborator Thundercat started wondering why nobody made records that good anymore. What if you could make an album so good it killed you? With this as their theme, they each began sketching out a record for a double-LP concept album. The two projects eventually split, partly because Flying Lotus's record had become so insular. Compressed into 19 brief and fragmented tracks, *You're Dead!* plays out in a tight, 39-minute-long meditation on death. For the album, Flying Lotus recorded sessions with keyboardist Herbie Hancock; saxophonist Kamasi Washington; rappers Kendrick Lamar, Snoop Dogg and Ellison's alter-ego Captain Murphy; vocalists Angel and Arlene Deradoorian and Niki Randa and others. But though the album is filled with contributions from these guest session artists, it doesn't come across in any way like a recorded live session. Every guest becomes a sample, a schizophonic artifact that is reactivated in the mix. Ellison reflects to the *LA Times* that his

> process was similar to how [he] used to make tracks, by sampling old recordings. "Put on a record, get something off the record", he says. "Then you get some drums. Then you go to the keyboard. Then you go to the bass. It was the same process, but with people". (Roberts 2014)

Creating a record with other people remains a fully sampladelic project, a point Ellison would find himself repeating on NPR's "All Things Considered" and in other interviews in the wake of *You're Dead!*'s release. It is as if the compression, the reduction of living collaborators to sampled sounds, was the most compelling and unsettling dimension of the album. Within the album's Bardo echology, these samples of featured guests appear as emblems of earthly attachment, hang-ups, words, breath and other sonic affordances in the moment of our letting go (fig. 5).

Figure 5. Flying Lotus, *You're Dead* (2014). Front cover illustration by Shintaro Kago.

You're Dead! is part of a series of Flying Lotus' meditations on death. Until the Quiet Comes (2012) was a tribute to Ellison's friend, Austin Peralta, the promising young jazz pianist who overdosed and died at 22. *You're Dead!*'s "The Boys Who Died in Their Sleep" is also dedicated to Peralta, and it references lost performers like J. Dilla and Freddie Mercury whose early, prog-inflected Queen records proved an instrumental counterpoint to the project's hard bop-inspired jazz fusion (Roberts 2014). Flamagra (2019), with contributions from an even larger roster of recognizable guest voices, can be heard as a reflection on climate death. *You're Dead!* is the Bardo album. Here, Flying Lotus narrates his own liminal encounter with mortality within a vast psychedelic mind-machine musical system. Lo-fi becomes a psychic defense strategy, with high levels of compression and distortion degenerating his source material into something raw, fragmented, digital and fucked up. Lo-fi conditions are provocative in schizophonic sound systems. They were particularly problematic for

Schafer. Taking his cues from McLuhan's hot and cold media, Schafer differentiates the signal-to-noise ratios of hi-fi and lo-fi soundscapes (1993: 118, 128, 43). Hi-fi soundscapes are expansive and rural, with a low background noise floor against which one can pick out details and maintain a sense of distance. Lo-fi soundscapes are denser, urban, claustrophobic. Individual sounds in lo-fi systems are "masked by broad-band noise. Perspective is lost" (Schafer 1993: 43). The chief irony that Schafer tracks is that the very introduction of hi-fi sound technology in fact exacerbates the ills of a lo-fi environment (1993: 88). Moreover, this schizophonic loss of sonic integrity negatively transforms the average Western household: "the overkill of hi-fi gadgetry not only contributes generously to the lo-fi problem, but it creates a synthetic soundscape in which natural sounds are becoming increasingly unnatural while machine-made substitutes are providing the operative signals directing modern life" (Schafer 1993: 91). Hi-fi home stereos are as bad as headphones. High-fidelity sound reproduction turns the whole room into a pair of headphones that you can walk around inside of, and heaven forbid you should have a quadrophonic set-up!

Schafer uses the phrase "the submarine home" more than once to evoke the isolating, immersive quality of sound technologies by which listeners find themselves "at the center of the sound", where we are "massaged" (another McLuhanism) by sound and, since it is a perilously permeable subaquatic craft, "flooded by it" (1993:117). Schafer worries most about "the integrity of inner space" (1993: 118). He fears that the integral nature of inner space erodes along with the authenticity of sonic experience. The loss of the original sound source to its recording fosters a never-being-able-to-be-in-the-moment kind of feel. The real culprit here is the collapse of vibrational headspace into a sonic enclosure maintained through mantric-like repetition, which possesses "dark, narcotic powers", entrancing listeners by delivering the operative signals of sonic delirium (Schafer 1993: 119). By contrast, lo-fi production in *You're Dead!* and *Flamagra* induces hauntological effects to manage and enhance schizophonic delirium: "Listeners may hear this as producing a temporal distance or a haunted, ghostly quality . . . or they may interpret the recording's crackle as indicating a kinship with music from the era of analog recording" or even with "the circulation of hip hop mixtapes" (Solis 2019: 27). In any case, it is a matter of dead media.

You're Dead! and *Flamagra* have some of the spectral form of vaporwave about them. Vaporwave is an Internet-based subgenre built on loops from pilfered sources like smooth jazz, yacht rock, Muzak and '80s Weather Channel identification bumper music. It is so translucent that attempts to define it simply open a Pandora's VHS tape box full of other microgenres like chopped and screwed hip-hop, hypnogogic pop, chillwave and hauntology. Culture theorist Grafton Tanner provides a taxonomy of sonic effects that explain vaporwave's obsessive use of dead media and the commodified ghosts of the past (2016: 60). Vapor-generating technologies like record players and tape decks, radios and TV emerge in culture alongside a narrative of the uncanny and fantastic. Jeffrey Sconce shows that popular media—radio plays, TV shows and movies about outer space or the future, psychic phenomena, possession, hypnosis, the supernatural and paranormal and all the other

twilight zones of the weird—provide a metaphor for media platforms themselves. Radio, TV, films function precisely as the "gateways to electronic otherworlds" that these stories are about, Sconce asserts (2000: 4). The self-shamanizing DJ, mixer or producer navigates these electronic gateways for personal self-exploration, using samples as the "doorway to the soul, the gateway to other dimensions, pathways occulted in one's everyday life" (St John 2013: 189). Indigenous sonic practices suggest a technoshamanic hauntology. Walkers in the rain forest make specific sounds to convey to birds and animals that they mean no harm, and to ask to be left alone. The cosmos extends into invisible realms that necessitate "sonic production and perception", and still others require our "hearing phenomena beyond the sonic" (Brabec de Mori 2015: 38–9, n. 17). This is a weird idea to get at, this silent sound. But it is at the root of Brabec de Mori's notion of sonic substance, and it has bearing on our understanding of sonic pharmakomedia and psychedelic sound systems, so is not ignorable. I'll wrap up, then, with some guided reflections on silent sonic substance in *You're Dead!*

The more Flying Lotus's albums orient toward death and loss, the more his catalog slots into a larger integrated brain-body music system involving collaboration with non-human machines designed to confront death, echological recursion and loss. Like Lee Perry, he "don't work with human beings" (Eshun 1998: 63). Captain Murphy and Snoop Dogg take on the roles of sonic vapor entities and musical affordances in "Dead Man's Tetris": "And now I'm left to keep you strong, and I kept you Flying Lotus" (Flying Lotus 2014). Ellison recalls working with Snoop Dogg in an NPR interview about *You're Dead!*:

> . . . his music was the first music that I genuinely fell in love with as a kid, as a teenager, I heard the *Doggystyle* album, and I was 10 years old—I was perfectly primed for that album. I was starting to be rebellious. I was starting to hate everything [*laughs*]. I was starting to see the dark side of the world. And then there's this guy from LA, with these beats that sound like LA. And it was just—it was perfect. It changed me. I always wanted to make music after that; I wanted to make beats after that. . . .To have Snoop on there, in the way that he's on the album—he's like a gatekeeper, you know?

> *Like a bardo demon?*

> Exactly. It's perfect that it's him. He was like, "You know, I made a song like that back in the day! It was called "Murder Was the Case". I was like, "Oh, you know, I might've heard that". (2014)

As cognition extends into the apparatus of musical affordance, ego and individual identity entangle with sonic non-human replicants. Throughout the 20th century, these have increasingly taken the form of pop media artifacts. "Murder Was the Case" had already narrated Snoop Dogg's own "becoming-media" in death; the track's music video begins with simulated news coverage of Snoop Dogg's murder, then goes into an afterlife journey full of temptation, wish-fulfillment and corruption, before closing with Snoop imprisoned in a buried casket (fig. 6).
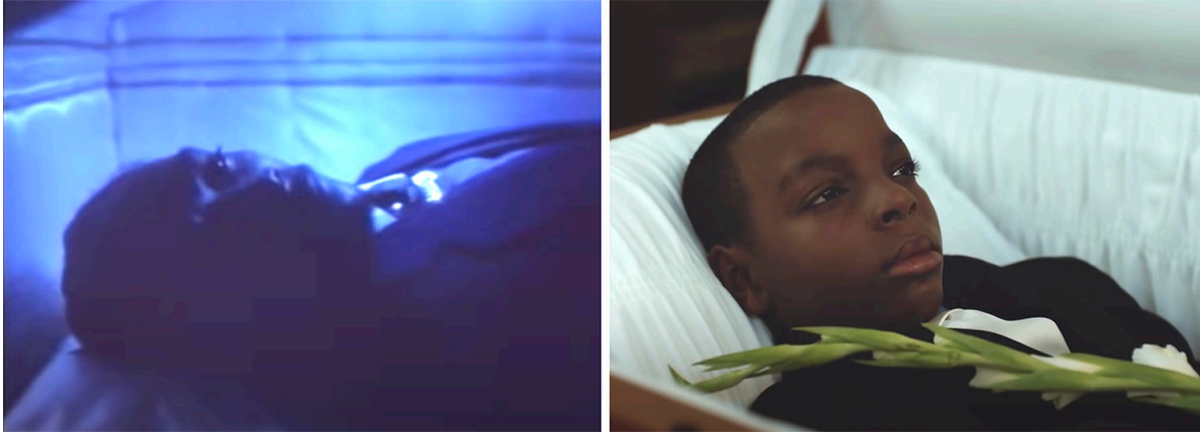
Figure 6. Stills from "Murder Was the Case", left (courtesy SnoopDoggTV) and "Never Catch Me ft. Kendrick Lamar", directed by Hiro Murai, right (courtesy Flying Lotus).

Flying Lotus's "Never Catch Me" music video includes casket shots, but that 10-year-old Snoop fan is in the box. The casket is a stark extended mind-machine music system that provides the ultimate space of deep listening (fig. 6).

In "Dead Man's Tetris", Snoop Dogg becomes a vapor flavor of the past self that he himself lives in living reference to, as a form in memory only. As gatekeeper within an echology that favors flavor over nutrient, Snoop Dogg hinders—holds up—the death of the contrived self. This is a form of *shunyata*, a construct built on all manner of cognitive affordances, at last manufactured, artificial, void. Captain Murphy—another "Ghost Captain"—is another hindrance. Flying in his own alter-ego in Ableton Live, Flying Lotus accesses a domain of shamanic experience that "endows us with the facility of creating beings, entities that do exist and do have tangible effects" (Brabec de Mori 2015: 34). Sound events from this world live on in the next. Using silent sounds to access the spirit world manages that world's ability to manifest in our own as illness, death and cures. In silent dimensions, shamanic listening activates "sonicoid" (sound-like) manifestations, which "take the form of beings, entities commonly called 'spirits' that act on the world 'we' perceive as real" (Brabec de Mori 2015: 37). They are mirrored through utterance and then left there, recorded in the spirit world, stored and made transferrable as sonic substance through some material platform. From there, the song can be replayed even when one does not hear it, for "a song exists also when it is not sung; a kind of silent transmutation, an act of transformation that takes place in the thoughts of the respective agent", turns memory into spirit world when a song plays in our head (Brabec de Mori 2015: 36).

It takes a special kind of listening to negotiate with the non-human agencies at work in the sonic substance. Listening to silent sounds tends to be pathologized in Western

industrial cultures as a form of schizophrenia and "hearing voices", but in South American cosmogonies, thought is a form of recorded sound that affords extended cognition even when it is not audible. Brabec de Mori implicates an indigenous schizophonia by which our world lives on in the sonicoid copies that maintain the spirit world (2015: 37). Flying Lotus digitizes the maintenance of the extended mind-music machine, making the aptly named Ableton Live the mind and memory of his mixing desk. Populated with the copies of his own living musical affordances, non-human sonic entities in digital stems, the vaporous, hauntological echologies here are the "twin or replicated domains where an *informatics of desire*—a desire to become information—distributes and disperses both consciousness and life into inhuman, inorganic, and extraterrestrial realms" (Doyle 2011: 176). The informatic turn to glitch adds new dimensions to the psychedelic mind-machine music systems. With its Tetris game bleeps and manipulated loop of Queen's "Another One Bites The Dust", "Dead Man's Tetris" compacts the novel form of collaboration with non-human machines—*I don't work with human beings*—that we hear throughout *You're Dead!* These person-scaled beings come from afar, through nanomedia-scaled wormholes, temporarily empty bits, glitches. They call to us, hail us—"Hold up, hold up, I bet you thinking that we dead"—and turn us toward them and know themselves as others (Flying Lotus 2014). Flying Lotus treats this moment of hailing by his idol and alter-ego simulacra as the very peak of sampladelic experience, and it is the key crisis of the Bardo and *You're Dead!*—"And now I'm left to keep you strong, and I kept you Flying Lotus" (Flying Lotus 2014). The sonic affordance sends its parting farewell to the listening dead as it turns to vapor.

The glitch in the Bardo simulator presents an opportunity to disrupt and distrust psychedelic rhetoric, which is helpful, but challenging. A recurring trope of psychedelic theory typically accommodates and absorbs its own disruption. But in glitch, the inability to communicate brought on by the ego-death simulation conundrum cannot be assimilated. It stubbornly remains "a deficit in the ecodelic experience" (Doyle 2011: 183). Stuttering, skipping, glitch can never be made to say something that it didn't because there's nothing there in the vapor gap of the glitch, and in this way, this silent sound is life-affirming. The glitch in the ego-death mortality simulation is that you're not dead. All the same, we must one day bid farewell to the many sonic affordances that now occupy our minds, hold us up, which we hear silently, often whether we want to or not, so many that we love, that made us "us".

Notes

1   See David Toop's (1995) evocative descriptions of the scene in *Ocean of Sound*.
2   Published previously by Faber & Faber in 1998 in the UK as *Energy Flash: A Journey Through Rave Music and Dance Culture*.

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