

interpretive communities. That both jazz and hip-hop are identified as African American musics may be the most obvious linkage, but the 1980s also solidified the notion that jazz was not only an African American music but also an African American art form. Despite protestation of this labeling from the artists themselves, groups such as A Tribe Called Quest, De La Soul, Digable Planets, and Gang Starr were largely defined by the style of music from which they sampled and borrowed. A walking acoustic bass, a muted trumpet, and saxophones are sonic elements that have become emblematic of jazz, and jazz codes enact commentary with these attached, historically situated ideologies. Hierarchies seem inescapable in music and are also reflective of wider cultural processes; for example, these rap music distinctions belong to a will to elitism or hipness still robust at the end of the cold war in 1980s and early 1990s US culture—and jazz provided the soundtrack. Rap music's borrowing from jazz was a key gesture in the defining of jazz rap as a sophisticated alternative, as part of hip-hop's ongoing struggle for cultural legitimacy.

CHAPTER 3

DR. DRE'S "JEEP BEATS" AND MUSICAL BORROWING FOR THE AUTOMOTIVE SPACE

I think men's minds are going to change in subtle ways because of automobiles.

—EUGENE MORGAN IN *THE MAGNIFICENT AMBERSONS* (1942)¹

We're conforming to the way machines play music. It's robots' choice. It used to be ladies' choice— now it's robot's choice.

—DONALD FAGEN, PRODUCER AND STEELY DAN FRONTMAN²

The music is just in me now, you know . . . and I know what people like to play in their cars.

—DR. DRE, PRODUCER/RAPPER³

In comparing the sonic codes in "Rebirth of Slick (Cool like Dat)" with "Nuthin' but a 'G' Thang" in chapter 2, and later two versions of 2Pac's "Thugz Mansion" in chapter 4, it becomes apparent that not only do musical codes signify certain genres or ideas, but they can imply certain listening spaces as well. In short, sounds can be historically, socially, and *spatially* situated. This chapter follows on from that point and begins to explore musical borrowing for particular playback spaces.

Contemporary culture has seen a shift in the character of urban environments, including a trend toward heightened design intensity in interior spaces; increased use of music as a component of design has strongly affected how playback from music recordings inhabits these locations and, in many cases, influences the music produced for them.⁴ This chapter underlines musical borrowing's intersection with geography, both the influence of urban geography on hip-hop music production and the geography of particular listening spaces. Though a number of spaces could be considered (clubs, concert halls, coffee shops, shopping malls), I have

chosen the playback space of the automobile because of its tremendous influence on hip-hop music production. My case study focuses on one producer, Dr. Dre, and his creation of a style labeled "G-funk," which according to him, was created and mixed *specifically* for listening in car stereo systems. As borrowing is so central to hip-hop's ethos, Dr. Dre's production reflects how musical materials become reused for a new space, updated and customized for the automotive listening experience.

Dr. Dre's compositional process is but one story in the history of the automobile's shaping of music production. Little has been written on the cross-influences among recorded music, technology, and automobility, and yet the automobile has been an important mixing reference in music production since at least the 1960s. I will consider not only how rap producers consider the automotive space in production but also how they borrow from previous musical material, tailoring it for historically specific playback technology and their idealized listening spaces, just as car customizers individualize automobiles from previous forms and materials.

Hip-Hop Cultures and the Automobile

As it began from playing records through large loudspeakers at block parties in the Bronx (see chapter 1), much of hip-hop music is still largely characterized by its high volume and its attention to the low frequencies in the musical spectrum.⁵ Many of these "beats" are intended for listening in car soundsystems, preferably custom ("aftermarket") systems with subwoofers. In mainstream hip-hop culture, cars and car accessories such as rims and grills become cross-marketed in a way that suggests "lifestyle" marketing, together with television shows like *Pimp My Ride* and *Rides* magazine.

The automobile and hip-hop culture form, in a certain sense, a nexus of status symbols (e.g., rims, subwoofers, and car brands) with an accompanying soundtrack. The high status that an upmarket or customized automobile provides to members of the African American community, according to Paul Gilroy, helps to compensate for the disenfranchisement

and propertylessness experienced in African American history.⁶ Gilroy notes that auto-autonomy is a means of empowerment and resistance for African Americans with a history of coerced labor and that the custom car is an ongoing process that may be "gesturing their anti-discipline to power even as the whirlpool of consumerism sucks them in."⁷ African Americans, in 2001, spent forty-five billion dollars on cars and related products, representing 30 percent of the automotive-buying public; yet this demographic only makes up 12 percent of the US population.⁸ Race-specific marketing by no means suggests that these accessories are bought solely by the race to which it is targeted, but it projects a certain form of "blackness," real or imagined, that enters the cultural consciousness. Gilroy writes that the automobile is "at the very core of America's complex negotiations with its own absurd racial codings."⁹ Others have suggested that the importance of the car harkens back to religious imagery, the chariot metaphor symbolizing the promise of freedom from slavery for the Hebrews and subsequently for antebellum African Americans.¹⁰

The automobile has been a central object in hip-hop music videos and album covers, ranging from the gangsta rap of Ice-T, Too \$hort, and Dr. Dre, to the "Bling Bling" era of Puff Daddy and Ma\$e, and, more recently, to the Southern "crunk" music of Lil' Jon and David Banner. The automobile and its powerful sound system is an object central to the boasting traditions in rap music and earlier African-based art forms such as toasting, as Daz Dillinger raps in "My System": "Cruzin' down the block / And my system bangin' out about a million watts / All these suckers wanna stare and jock / And hear my shit subbin' down the block" (0:32–0:38).

Car audio technology and hip-hop styles began to evolve in the 1980s when it became more common for young drivers to have upgraded systems. In automobile-centric Miami, Florida, there emerged a subgenre of rap known as "Miami bass." Miami groups such as 2 Live Crew made a direct connection with bottom-heavy music and bottom-heavy women on their album covers and music videos ("Miami bass" was sometimes referred to as "booty music" or "booty bass").¹¹ One hit song by the Miami female rap duo L'Trimm rapped of their love of "boom cars" in 1988 as they chanted, "They're always adding speakers when they find the room /

Cuz they know we like the guys with the cars that go boom" (1:33–1:40).¹² Bass music, as popularized largely by 2 Live Crew, expanded in the early 1990s with hits such including "Whoot, There It Is" by Jacksonville's 95 South in 1993, "Whoomp! (There it is)" by Atlanta's Tag Team in 1993, and "Tootsie Roll" by Jacksonville's 69 Boyz in 1994.

The use of the car stereo system is multifaceted. The music can be used for individual driving pleasure or function like a boom box, to accompany and create a space of socialization such as a block party, or it may territorialize (and/or terrorize) the surrounding sonic environment. "Boom cars" have been a source of both intense competition and neighborhood frustration. The International Auto Sound Challenge Association (IASCA) was formed in the late 1980s and regularly holds competitions for the loudest and highest-quality car sound systems, competitions referred to by enthusiasts as "sound-offs," "crank-it-up competitions" or "dB Drag Racing."¹³ Others see the boom-car pastime as using sound as a weapon, as activist groups in the United States who consider themselves "victims of audio terrorism" have pressed for legislation to decrease legal decibel levels in cars.¹⁴ The multiplicity of car audio uses demonstrates its interpretive flexibility, and that technology and society influence each other in complex ways. What "boom cars" show more specifically is that the notion of a "good"/pleasurable or "bad"/harmful technology differs not only with users but also with those who are directly or indirectly affected by a given technology.

The primary object that connects the boomy bass of hip-hop to the automotive soundscape is the car subwoofer. Available in the car-stereo "aftermarket" (i.e., custom products, as opposed to "stock" systems that come with the car) since the early 1980s, the subwoofer is a large, enclosed loudspeaker (eight to eighteen inches in diameter) that, like any speaker, turns electric impulses into mechanical energy/soundwaves.¹⁵ The subwoofer specializes in producing the lower-frequency waves in the sound spectrum (roughly 20–120Hz), omni/nondirectional sensations of sound perceived as an amalgamation of pitch recognition and a feeling of pressure (sound measured in decibels is also known as sound pressure level, or SPL).¹⁶ In other words, the lower the frequency, the greater the possibility that one will begin to "feel" the sound. Without the sub-

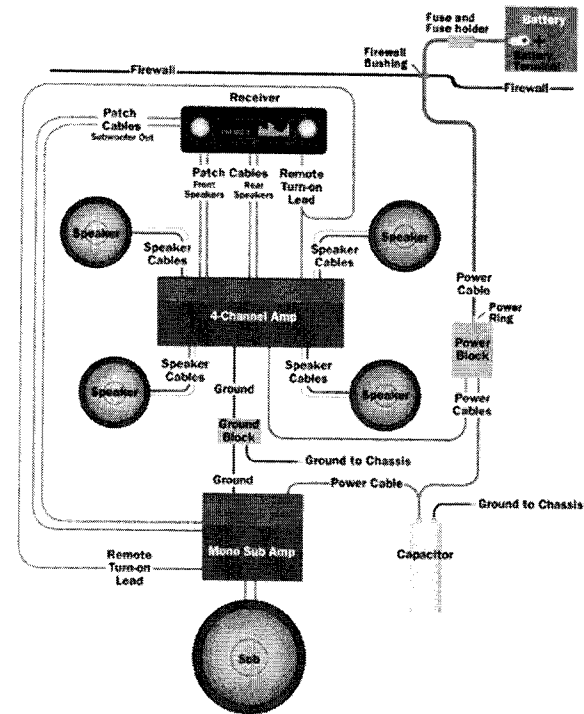


Figure 3.1: Car audio amplifier wiring diagram. Diagram courtesy of Crutchfield Corporation © 2003.

woofer, other noises can cancel the lower frequencies in the music, frequencies that require so much power that one needs a separate amplifier for them.¹⁷ Most road noise is in the 100–200 Hz range and will cancel out this band of a recording's audio spectrum; therefore, one function of the subwoofer is to bring out the lower frequencies in the music.¹⁸ A custom system creates an auditory division of labor in speaker types, with higher frequencies supported by tweeters, middle frequencies by midrange speakers, and lower frequencies by the woofers and subwoofers.¹⁹ In choosing these and other types of speakers, one has to think of qualities such as "resonant frequency," the frequency at which the speaker naturally wants to vibrate, and "transfer function": "a measure of how the volume of an enclosure, such as a room or a car, effects the way a speaker sounds."²⁰ The attention given to specific technology such as loudspeaker types and their playback qualities, and to the character of specific play-

back spaces, is important to car audiophiles and a fruitful lens through which to consider and analyze music production and recordings.

Like those inhabiting custom car cultures before them, car audio enthusiasts form a community with shared interests, while expressing a sense of individuality. The design intensity and niche marketing of the car audio aftermarket can be said to participate in the so-called post-Fordist society; the fact that *The Car Audio and Electronics Buyer Guide* listed 3,195 different speakers available in just one year (1998) attests to this.²¹ But many forget that the emblematic symbol of Fordism, the Model T, had over 5,000 accessories available in its lifetime, suggesting that the desire to customize the car is as old as automotive mass production itself.²² Rather than invoke discourses of Fordism, perhaps it is more useful in popular music production to invoke the influence of Sloanism, named after General Motors president Alfred Sloan, the creator of the annual model, who produced different car models in a stylistic hierarchy and led the first separate design division for a car company in the 1920s (led by Harley Earl for over thirty years).²³ Hip-hop music, for example, with its heavy use of borrowing and sampling, adds surface features to old frameworks in some ways analogous to Sloanist production methods and functions within a constantly shifting subgeneric hierarchy of cultural products.

The Automobile and Music Production

The automobile forms an exemplary object of twentieth-century mass production, transforming time, space, and "the everyday," as well as urban and emotional geographies. It is safe to say that this "quintessential manufactured object of Fordism"²⁴ had influence on a number of production methods, including recorded music production. And as Michael Bull reminds us, "While the 20th century is sometimes interpreted as both the century of the automobile and of the moving image, it is also the century of mechanically reproduced sounds."²⁵

It was Galvin Manufacturing Company that built the first commercially successful car radio in the early 1930s, known as the Motorola 5T71,

an amalgamation of the words "motor" car and "Victrola." (The company would later change its name to that of its most successful product.)²⁶ By 1952, automobile radios were in just over half of America's cars but had a significant boom after this due to the 1953 invention of the transistor, which made car radios more reliable and affordable. By 1980, the start of a decade that saw the rapid growth of both the car audio aftermarket and rap music, that percentage had increased to 95 percent.²⁷

The automobile sound system has been an important listening reference in many styles of music production since at least the 1960s, with the advent of Top 40 radio and the car's role in youth cultures. Steven Pond writes, "Bowing to the importance of radio airplay, pop producers up to the late sixties routinely calibrated their final mixes to cheap car speakers, which could accommodate only a limited frequency range."²⁸ Perhaps appropriately, given its location in the car manufacturing mecca of Detroit, Motown Records was attentive to this new listening market, as by 1963, fifty million automobiles had car radios.²⁹ Suzanne Smith writes:

At Hitsville Studios the proliferation of the car radio was not overlooked but capitalized on. Both the musical form and the audio fidelity of Motown hits such as "My Girl" and "Shop Around" were well suited and often produced with a car radio audience in mind. Some of the first critical commentary on the Detroit sound noted that "Motown's light, unfussy, evenly stressed beat, its continuous loop melodies, [are] the ideal accompaniment for driving."³⁰

Motown made its singles extra short to help ensure radio play and tested them for compatibility with car radio speakers. Motown was also aware that the majority of car radio listeners belonged to the baby-boomer teenage market it was trying to attract. As producers tailored their mixes to the car stereo, the needs of automotive listening surely impacted the timbre and volume of the music produced. As Warren Belasco has written, "The greatest success in rock 'n' roll usually goes to those whose music suits the hyperkinetic formats of the Top-40 stations that transmit primarily to car radios and transistor receivers."³¹

Radio stations since the 1960s have heavily "compressed" (i.e., used

dynamic range compression) the sounds coming through the airwaves, as compression decreases the overall range of the dynamics to make music sound louder without increasing peak amplitude. Television commercials also often have compressed sound, which is why commercials often sound louder than programs. One reason producers utilized this “loudness” effect from compression was to compete with rival radio stations, to sound more exciting and keep the listener’s attention; but another reason was to produce a consistent dynamic level that could be heard over the road and engine noise of an automobile. Music producers also use dynamic compression in mixing to compete with other “loud” albums but also when they expect albums to be played in loud environments such as bars, shopping malls, restaurants, and automobiles.³²

Automotive listening (particularly for those with “stock systems”) demands a high level of dynamic consistency; listening to Berlioz’s *Symphonie Fantastique* or Schubert’s *Unfinished Symphony* on a stock system without a compressor can prove to be frustrating. Just as earlier phonograph record technologies had influenced the length of music composed, the car stereo now influenced elements such as the timbre of popular music recordings.³³ Furthermore, the ability to record bass, synthesizer, and other sounds by DI (using “direct injection” to the mixing console, rather than putting a microphone up to an amplifier) provides greater flexibility in altering the sounds once they have been recorded.³⁴ As recording technology improved, so did the ability to tailor music to particular listening spaces.

Unlike car audio technicians, who consider the car to be a far from ideal listening environment, compared to the home,³⁵ many music producers speak positively of the automotive listening space. When asked by an interviewer what the ideal listening environment for a minisystem was, producer and artist Stewart Copeland commented:

I’ve already got one: the car stereo—which is the first and best minisystem if you think about it. You’re in this cocoon where you can have a really big sound in an enclosed environment. Then there’s the fact that you’re driving with scenery moving past. . . . When I record an album, I spend months listening to it in the studio. I listen to it every day going

back and forth in my car. I check it out on tiny systems. And then I hear it coming out of the radio, so I know what it sounds like.³⁶

The “car test” or “car check” was and still is used in record mixing, as the car is often the first place that a mix is heard outside the studio.³⁷ California sound engineer Patrick Olguin states, “If I’m mixing ‘unassisted’ I’ll check the mix in my stock system in my truck, and also check it in my custom system in my Mercedes.”³⁸ Olguin ensures that his mix works for the majority of car owners (who have stock systems), as well as for those who enjoy the greater clarity, improved frequency response, and bass extension of a custom aftermarket system. He also mentions that “most hip-hop producers have upgraded car systems, so that would definitely be the first acid test for a mix after leaving the studio.”³⁹ Studios normally have a number of sets of speakers for different instances of listening, selectable at the flip of a switch; some studios (such as Sony Studios in New York City) have a car speaker system built into the studio as part of their reference speaker configurations.⁴⁰ Olguin also has a wireless system, allowing him to listen to mixes through the car radio by using a radio transmitter that delivers the signal to the parking lot, in order to hear the mix as it would go through a radio station.

In addition to the car now serving as producers’ listening reference, producers have also become more conscious of the idea that a recording is intended to fill a particular space, rather than to reproduce a performance accurately. Adam Krims notes a trend in new classical music recordings, which have shifted their aim from “concert realism” to an “abstract soundstage” that considers particular playback spaces. In hip-hop, the “star producer” is valued for how his or her music fills a space, such as a car or jeep, rather than what he or she can do in live performance.⁴¹ The trademarked producer will be advertised on albums, assuring listeners that the product that they buy will fill space in a particular way.⁴²

Consideration of the relatively small space of the car interior in production and mixing affects elements such as dynamic compression, how frequencies are equalized, and in particular the sound quality of low frequencies (both the aural and the tactile/corporeal elements of subwoofer playback). While the opinions of music producers are far from

homogeneous, testing music mixes in the car (on both stock and custom systems) is a rarely acknowledged standard practice; if we then consider both the playback spaces and the speakers involved, we can better analyze the ecology of how a music recording interacts with the listener in particular environments.

Dr. Dre and “G-Funk”

Dr. Dre (Andre Young), the “chief architect of West Coast gangsta rap,”⁴³ was born in Los Angeles, California. He was a club DJ, then a producer and rapper with the groups the World Class Wreckin Cru and N.W.A. (Niggaz With Attitude). After leaving N.W.A., he spent all of 1992 producing his first solo album, *The Chronic*. What emerged was a sound that he christened “G-funk” (G for “gangsta”), inspired by the P-funk of George Clinton but also borrowing from Leon Haywood, Isaac Hayes, Curtis Mayfield, and Donny Hathaway, as well as utilizing “vocoder”-esque effects similar to those of electro-funk groups like Zapp and Cameo.⁴⁴ What results is a highly layered effect, a mix of (often high-pitched) synthesized sounds and live instruments such as guitar and bass and an added emphasis on low-end frequencies.

One example of this style is the layers of the basic beat in Dr. Dre’s “Nuthin’ but a ‘G’ Thang” from *The Chronic* (example 3.1):

Basic beat layers

Example 3.1: Transcription of Dr. Dre, “Nuthin’ but a ‘G’ Thang”

The high synthesizer riff, derived from Leon Haywood’s “I Wanna Do Something Freaky to You,” has become (in both timbre and melody) an important signifier of Dr. Dre, of Southern California, and more widely of the gangsta rap or “West Coast rap” subgenre. As New York MC Mims raps of different geographical regions in “This Is Why I’m Hot” (2007), “Compton to Hollywood / As soon as I hit L.A. / I’m in that low, low / I do it the Cali way”, the riff from “G’ Thang” accompanies the stanza.⁴⁵

As opposed to East Coast hip-hop producers at the time, Dr. Dre rarely sampled directly from a record itself. He might use a 1970s record for ideas (a melody, beat, or riff), but he had live musicians rerecord the sounds that he wanted. After equalizing and sculpting particular sounds, he then can choose to put the sounds through a sampler. He often takes preexisting drum sounds from recordings, loops them, and gradually replaces each drum part with a new one. Dre then employs a bass player to record a track over the drums and other musicians to rerecord or improvise, based on various tracks. In rerecording all the material live, in addition to avoiding high copyright costs,⁴⁶ Dr. Dre has greater control over all of the individual tracks: he can detune, add more “low-end” frequency, add effects, apply dynamic compression (to help drown out road and engine noise during playback), add effects, make it sound “dirty,” or equalize to his taste.⁴⁷ He often uses a Mini-Moog and synthesizers such as the Wurlitzer, Fender Rhodes, Clavinet, and Vox V-305 organ, as well as a Roland TR-808 drum machine, employed by many hip-hop producers for its kick drum bass “boom” sound.⁴⁸ This flexibility is important to Dre, often labeled a perfectionist in the studio.⁴⁹

Dr. Dre often utilizes a number of musicians to “orchestrate” various sounds that he wants, as producer Scott Storch recounts:

Sometimes [Dre will] have a vision for a record where he’ll program a drum pattern and tell musicians such as myself what to play verbatim, and we’ll emulate for him, through him. He’s capable of doing a lot of the stuff, like playing piano. But he creates a little band. He’s orchestrating his little orchestra. And sometimes, I’ll be at the keyboard noodling, and he’ll be at the drum machine noodling and we’ll find each other in that way—all of a sudden, *boom*, there’s a record.⁵⁰

Jonathan Gold also writes of Dre's compositional process in the making of *The Chronic*:

Listening to a Dre beat take shape in the studio is like watching a snowball roll downhill in a Bugs Bunny cartoon, taking on mass as it goes, Dre may find something he likes from an old drum break, loop it and gradually replace each part with a better tom-tom sound, a kick-drum sound he adores, until the beat bears the same relationship to the original that the Incredible Hulk does to Bill Bixby.

A bass player wanders in, unpacks his instrument and pops a funky two-note bass line over the beat, then leaves to watch CNN, though his two notes keep looping into infinity. A smiling guy in a striped jersey plays a nasty one-fingered melody on an old Mini-Moog synthesizer that's been obsolete since 1982, and Dre scratches in a sort of surfadelic munching noise, and then from his well-stocked Akai MPC60 sample comes a shriek, a spare piano chord, an ejaculation from the first Beastie's record—"Let me clear my throat"—and the many-layered groove is happening, bumping, breathing, almost loud enough to see.

Snoop floats into the room. He closes his eyes as if in a dream and extends both hands toward Dre, palms downward. Dre holds out his hands, and Snoop grazes his fingertips with a butterfly flourish, caught up in the ecstasy of the beat. . . .

Dre comes in from the lounge, twists a few knobs on the Moog and comes up with the synthesizer sound so familiar from *The Chronic*, almost on pitch but not quite, sliding a bit between notes.⁵¹

Though these journalistic sources often portray information in highly stylized ways, they nevertheless are useful in mapping out Dre's compositional tendencies as producer. Dre's production is a collaborative process, but he most certainly has creative control over the final product.

While the use of the drum machine was already common in hip-hop production, Dr. Dre's conspicuous use of synthesizers in the digital sampling era was not. The synthesizer has been a prominent feature of popular music for over forty years (including 1970s groups and artists from disparate backgrounds such as Yes, Wendy/Walter Carlos, Parliament Funkadelic, Gary Numan, Sun Ra, Stevie Wonder, Kraftwerk, Genesis,

Herbie Hancock, and ABBA). Anxieties regarding the synthesizer were expressed, particularly in the 1970s, as musicians and audiences were susceptible to cultural assumptions that electronic instruments are "cold" and "inhuman," perhaps because they produce fewer overtones than other instruments.⁵² Though keyboards had a mixed reception in the 1970s, Andrew Goodwin points out that a generation of 1980s popular music artists and producers grew up with the synthesized sounds of the 1970s. Goodwin, writing in the late 1980s, comments that "pop musicians and audiences have grown increasingly accustomed to making an association between synthetic/automated music and the communal (dance floor) connection to nature (via the body). We have grown used to connecting *machines* and *funkiness*."⁵³ He continues:

What happened then was that the very technology (the synth) that was presumed in the 1970s to remove human intervention and bypass the emotive aspect of music (through its "coldness") became the source of one of the major aural signs that signifies "feel"! This is the sound of a bass analogue synth—often a Moog synthesizer.⁵⁴

A number of producers have shared their proclivity for using Moog synth for bass. Producer Glen Ballard, when asked in an interview how to deal with getting the low end tight without being flabby, responded:

Get a Minimoog! (laughs) Ninety percent of the bass I do is Minimoog. I think it's the best way to solve low-end problems—that and being real careful with the pattern of the kick drum. Because the Minimoog has three oscillators you can cover so much ground with it, and there are MIDIable versions of them now, you can sequence with them. I've always had such great luck with that as my bass, and you can get an infinite variety of sound with it—the filtering can be incredible, you can adjust the sustain. It has so many colors, and yet it's about the richest bottom end harmonic element that I've ever come across. The Minimoog is just such a workhorse for me—I can't do without it.⁵⁵

Producer Jack Douglas has said that for bass "I like to use a subharmonic synthesizer because so many systems have subwoofers, you've gotta

have stuff to feed that."⁵⁶ It is possible that the lack of overtones and the sheer power and directionality of these synthesizers are more suited to automotive technology than earlier sonic innovations. Dr. Dre's interest in synthesizers may be influenced by a nostalgia for funk music, a fascination with earlier technologies, or his general feeling that they are "warmer" than sound sampled from a record. While any attempt to locate his exact reasoning would be speculative, the timbres of synthesized sounds are strikingly compatible with car audio technology and the driving experience. Furthermore, the use of large speakers in both clubs and cars signals attention to the entire body sensations triggered by powerful, low frequencies. These often pleasurable sensations become part of the musical experience, created through subwoofer technology, the listening environment, as well as the timbres produced by synthesized sounds and their mix post-production.

At a time when the sounds of rap music were rarely discussed with any detail in journalism, media reception of *The Chronic* discussed sound, in addition to the usual topics such as rapper persona and geography. This is partly because of the familiarity of the funk music that Dre interpolates but also partly because of what he does to the sounds. One journalist described his sound as "rumbling bass lines, hyperrealistic sound effects, and beats that hit the bloodstream like a pulp fiction adrenaline shot."⁵⁷ Jan Pareles noted that *The Chronic* was

the album that defined West Coast hip-hop with a personalized style, G-Funk, that's simultaneously relaxed and menacing. The bottom register is swampy synthesizer bass lines that openly emulate Parliament-Funkadelic; the upper end is often a lone keyboard line, whistling or blipping insouciantly. In between are wide-open spaces that hold just a rhythm guitar, sparse keyboard chords and perhaps a singalong chorus between a rapper's unhurried rhymes. It's a hermetic sound, sealed off from street noise as if behind the windows of a limousine or a jacked-up jeep; it's the sound of the player, enjoying ill-gotten gains but always watching his back.⁵⁸

Gold wrote, "The Dre sound is clean but edgy, deeply funky, featuring

slow, big-bottomed, slightly dirty beats and powered by guitar and bass work that is not sampled but re-created in the studio—so that unlike East Coast rap productions—the fidelity of the final product is not inflected by the fidelity of scratchy R&B records that have been played too many times."⁵⁹ Brendan Koerner wrote:

Instead of merely sampling funk hits, he hired session musicians to cover their best parts on synthesizers—usually just the catchiest six to 12 notes, slowed down to stoner speed. It was as if Dre took a magnifying glass to every P-Funk classic and zeroed in on the most addictive three-second segments. The whining 10-note synth line in the chorus of "F—k Wit Dre Day," *The Chronic's* first single, is unforgettable. And unforgettable singles move albums; how many consumers bought *The Chronic* simply because they couldn't shake "F—k Wit Dre Day" from their minds?⁶⁰

Robert Marriott wrote that G-funk was "haunted P-Funk laced with synthesized vice" and that "Dre and his collaborators gave body to the laid-back tension that characterizes the life in Los Angeles ghettos. It was depraved gospel."⁶¹ Sound, of course, does not exist in a vacuum, and these examples of media reception indicate attention both to the character of specific sounds and to the extramusical discourses that may have influenced these interpretations. The legacy of 1970s funk music forms one recognizable influence, but the imagery from 'hood films and gangsta rap music videos (from *The Chronic*, as well as earlier videos from N.W.A., such as 1988's "Straight Outta Compton") also helped to solidify the link between synthesizers and bass extension and a "dirty" sound said to represent the ghettos of Los Angeles. *The Chronic* was advertised in 1992 in hip-hop magazines like *The Source*, with Dr. Dre standing prominently in front of his 1964 Impala, firmly establishing the link between the album and the prominence of the automobile in G-funk imagery even before the music was released (fig. 3.2).⁶²

The Chronic went on to become the best-selling hardcore rap album in history at the time, and Dre helped his next production credit, Snoop Doggy Dogg's *Doggystyle*, to become the first rap album to debut at number 1 on the *Billboard* charts. This synthesized "post-funk"

or “post-soul”⁶³ sound characterized what is known as the “G-funk era” from 1992 to 1996, emblematic of a “West Coast rap” aesthetic still influential in hip-hop production. *The Chronic* is often described as a crossroads in hip-hop historiography, the point when rap music became less about the rap itself (accompanied by unobtrusive beats) and more about how well the rapper incorporated him- or herself within the producer’s beats.⁶⁴

As the above quotations suggest, media reception of Dr. Dre’s production often made the link between the wide-open spaces of the West Coast and the development of G-funk. To quote Michael Eric Dyson, “West Coast hip-hop tailored its fat bass beats and silky melodies for jeeps that cruise the generous spaces of the West”;⁶⁵ the ideology of “the West” helped to create a dichotomy between G-funk’s “somatic” sound (often linked with automotive listening) and the allegedly more “cerebral” East Coast sound. One writer includes pop rap artist MC Hammer (from Oakland) in this West Coast aesthetic and suggests that his sound and implied listening spaces are more conducive to mainstream success:

In no uncertain terms, West Coast rap spelled out the acceptable and unacceptable ways to court mainstream success. On the East Coast, however, it was still just courting. New York rap often seemed deeply insular—the tricky wordsmith pyrotechnics and cryptic references of innovators like Gang Starr, Poor Righteous Teachers, and early Tribe Called Quest was much to be played on Walkmans while riding on the subway or cut up by DJ Red Alert in sweaty afterhours underground clubs. Also, much of it was interior—just listen to Rakim go back to the womb on “In the Ghetto”—as well as spiritual, frequently laden with the insider-only rhetoric of Muslim sects like the 5 Percent Nation. West Coast hip hop, in contrast, was driving music, ready-made to blare out of car windows and share with the world. And as Hammer found out with the gargantuan sales of *Please Hammer* . . . there are more pop-friendly car drivers in America than subway-riding New York rap ideologues.⁶⁶

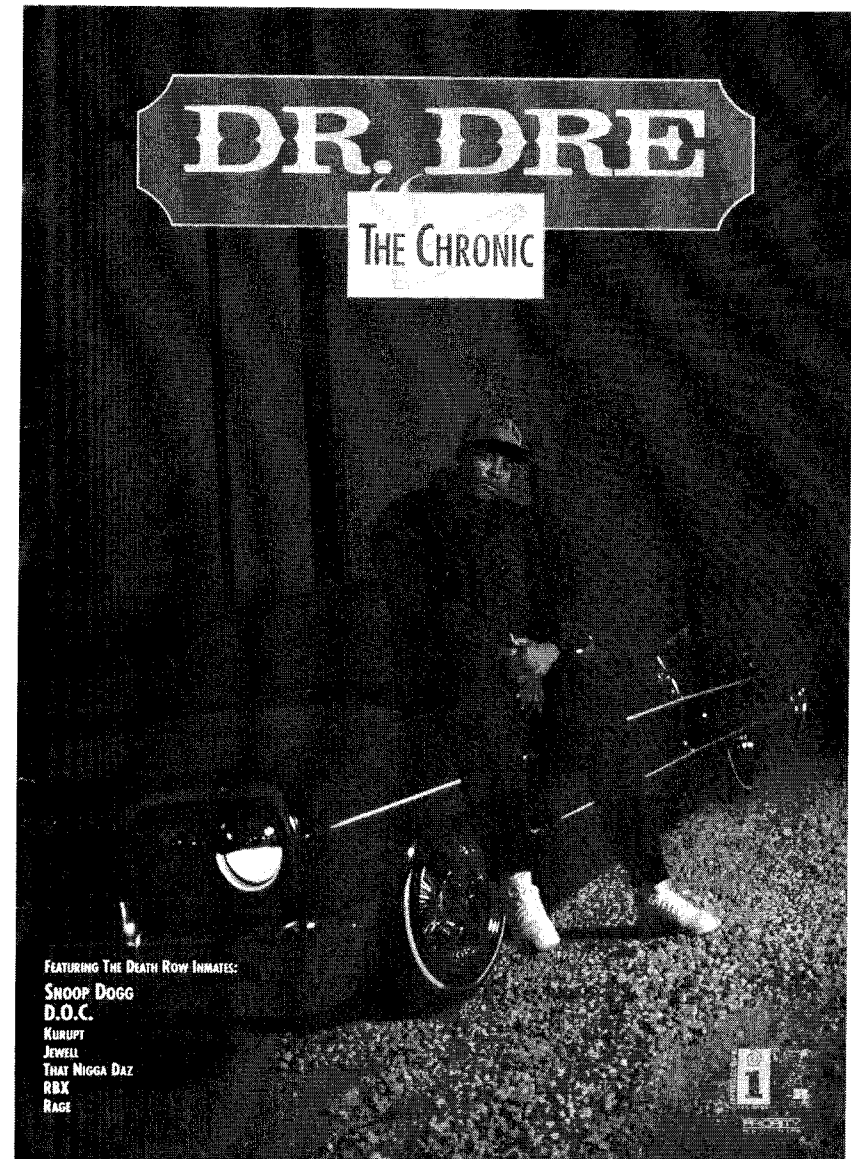


Figure 3.2: Dr. Dre, *The Chronic*, advertisement in the *Source*

This bifurcation between East and West, influenced in part by the sounds of the recordings, would have a profound influence on 1990s hip-hop.

The connection between the *sounds* of "G-funk" and their implied listening space merits investigation: Dr. Dre envisioned that the primary mode of listening would be through car stereo systems. He explained in a 1992 interview with Brian Cross:

I make the shit for people to bump in their cars, I don't make it for clubs; if you play it, cool. I don't make it for radio, I don't give a fuck about the radio, TV, nothing like that, I make it for people to play in their cars. The reason being is that you listen to music in your car more than anything. You in your car all the time, the first thing you do is turn on the radio, so that's how I figure. *When I do a mix, the first thing I do is go down and see how it sounds in the car.*⁶⁷

For Dr. Dre, the automotive listening space represents an idealized reference because it is reflective of the way he perceives that people listen to his music. The centrality of the car to his lifestyle can be seen in a number of Dr. Dre's music videos from *The Chronic*.⁶⁸ Dre's music video for "Nuthin' but a 'G' Thang" also features the car prominently as a crucial part of a day in the life of Compton's black youth.⁶⁹ The video opens with a close-up of Dr. Dre's car radio, with a voiceover from DJ Charmaine Champagne (actually a pornographic film star) introducing the track. During the voiceover, the camera zooms out in a crane shot similar to the famous opening of Orson Welles's 1958 *Touch of Evil* (which also features the automobile prominently in its opening sequence). The camera eventually shows Dr. Dre, exiting his car to pick up his friend Snoop Doggy Dogg at home.⁷⁰ During the music video, there is a twenty-second sequence that shows Dre and friends in their cars, driving on the freeway, going from a picnic to a party. In addition to Dre's own 1964 Chevrolet Impala (fitted with hydraulics), the video includes many other lowrider cars, as Gold recounts:

Chugging, smoke-spewing old relics burnished to a high shine, bound-

ing and rebounding higher and higher, tossing their passengers about like so many extremely urban cowboys. If you peek into the trunk of any of these cars, you will see 14 car batteries hooked up in series and a row of hydraulic motors mounted where you'd expect to see the spare tire, but you'd better get out of the way when it starts to jump.⁷¹

The video ends with Dre being dropped off at the house that began the music video, creating a bookend image of the same house and automobile. Multiple gangsta rap music videos began to show the car's prominence in the Southern Californian ghetto world, such as Dr. Dre's "Let Me Ride," Ice Cube's "It Was a Good Day," Warren G's "Regulate," and Nate Dogg's "G-Funk." The association of rap music with the automobile became so ingrained that it became the source of parody, such as in an early 2000s Avis/XM Satellite Radio commercial that featured three middle-class men in business suits, white and Asian in ethnicity, commuting to work, listening and rapping along to Lumbajac's "2Gs." The lyrical topic of the song ("Make that money man . . . I gotta stack cheese")⁷² fits the men appropriately, but the commercial subverts the imagined audience for the genre of music, usually depicted in myriad representations as lower-class African American youth.

The geography of California is important here, as one-half of Los Angeles is dedicated to spaces designed specifically, and often exclusively, for the automobile (i.e., freeways, roads, parking lots).⁷³ Southern California is the site of numerous car-culture births (hot rods, lowriders, GM's Harley Earl, the pinstriping of George Barris and Von Dutch, the car audio aftermarket),⁷⁴ helping to incorporate numerous car-inspired inventions into American life such as the drive-in, the suburban shopping mall, "cruising," the motel, drag racing, fast food, and trademarked modes of hip-hop production such as those of Dr. Dre. Krims notes that "one could certainly argue some specificity to the history of rap music in this case: Los Angeles car culture nurtured the so-called 'Jeep beats,' tracks mixed specifically for playback in car audio systems."⁷⁵ California also played a crucial role in car customization culture and the development of the subwoofer.⁷⁶ Peter Marsh and Peter Collett, in their study of the psy-

chology of the automobile, acknowledge that "the West Coast of America has spawned more auto cults than any other part of the world."⁷⁷ The car cultures that arose in Los Angeles became mediating cultural practices that helped to shape Dr. Dre's music production techniques.

Los Angeles has had a long history of automobility, with the automobile central to everyday life since the 1920s. Ashleigh Brilliant writes that

Los Angeles, as the famous architect Richard Neutra pointed out, was the only metropolis in America whose major expansion occurred entirely within the automobile era and was, therefore, able to incorporate the automobile more completely into its highly artificial landscape than could any already well-established city.⁷⁸

One writer wrote in the 1920s that "if California ever adopts a new State flower, the motor car is the logical blossom for the honor."⁷⁹ In the 1930s, a California city planner declared that "it might be said that Southern Californians have added wheels to their anatomy."⁸⁰ The mythologies surrounding "the West," the frontier, and its cowboys were updated in the automotive era, represented in the film *American Graffiti* (1973), which depicts "cruisin'" teenagers in early 1960s California,⁸¹ to quote the Chuck Berry song, with "No Particular Place to Go." As Peter Wollen writes of the film, "The soundtrack of *American Graffiti* comes straight from the car radio, a selection of music played by the radio station's charismatic disk jockey, Wolfman Jack"; commenting on soundtracks to films such as *Easy Rider* (1969) and *Thieves Like Us* (1974), he states that "the car radio and the roadside juke joint have taken over the role of the traditional symphonic score."⁸²

Some have theorized that the subbass frequencies central to hip-hop and other "urban" music genres are influenced by the urban soundscape, presenting a direct relationship between the sonic elements of an urban environment and the music produced from it *and* for it. Producer/engineer Ralph Sutton states:

Some people have a predisposition for certain styles of music. I grew up in a 60-cycle domain; I was born in Chicago but we moved to the inner

part of L.A. early on, right in South Central. And there's always low frequency going on, whether it's the bus going by, the airplane flying over, the jackhammer in the background. So there are certain frequencies we are exposed to for long durations of time, and, obviously I'm not a psychologist, but I think that has something to do with it. If you grow up in an inner city where this is going on all the time, that gives you a different disposition; there's music in that noise. When you hear construction noise and something falls down, there's your boom-boom right there. A different part of that noise is your snare.⁸³

His "60-cycle domain" refers to frequencies at 60 Hertz (cycles per second), according to Sutton, the frequency of a Roland TR-808 kick drum. Whether being drowned out as exterior sounds (as iPod earbuds do well) or becoming one with them, urban sounds have had a direct influence on so-called urban music genres. The automobile, as a crucial part of urban socialization, has influenced multiple forms of cultural production, including hip-hop music.

Like the car customization cultures of Southern California, Dr. Dre takes old parts and puts new features on old frameworks. Through his "replays" (Dre's term) or "interpolations," he is customizing the music for an idealized community of automotive listeners. His production style has been described as perfecting a "gangsta pop formula,"⁸⁴ the "pop" aspect most likely alluding to his use of the (usually simple) verse-chorus form and the repetitive "hooks" on the choruses (whether by synthesizer in "Dre Day" and "Nuthin' but a 'G' Thang" or by voice in "Gin and Juice"). The notion of G-funk as "gangsta pop" was influenced not only by song structure and chorus material but also by the commercial success that *The Chronic* enjoyed, demonstrating that rap music could be successful in the popular music mainstream, what hip-hop historian Jeff Chang calls the "popstream." Dr. Dre's production often crafts verse-chorus forms more familiar in non-funk-based popular music by using musical material from funk songs that do not follow this form. The finished recorded product, like the automobile, appears as a unified object but in actuality originated from numerous disparate sources. The automobile has over ten thousand parts, but car designers attempt to create the illusion of

unity. Like Alfred Sloan, Dr. Dre updates the sounds of 1970s funk, what Vance Packard refers to as “the upgrading urge” of the annual model.⁸⁵ The car and Dr. Dre’s productions can be seen as symbols of complexity, of hybridity, that reflect a desire to create an object with the semblance of unity.

In addition, the interplay between human and machine in the driving experience may enlighten an analysis of hip-hop (and other) recordings that embrace the hybridity of their “human” sounds (e.g., the voice) and their “synthesized” ones (e.g., the drum machine, synthesized keyboards). Rather than situate these recordings as reflecting a large-scale shift from “the human” to the “post-human” in society, as N. Katherine Hayles has suggested, it is more productive in this case to analyze how much of contemporary recorded music is a mix of the human, the synthesized, the acoustic (e.g., string, guitar, drum kit), and other electromechanical instruments that are so deeply ingrained in cultural consciousness that we give little thought to their status as “technological artifacts” (e.g., the electric guitar, the electric bass).⁸⁶ G-funk, like many rap subgenres, espouses a notion of “realness.” Rather than present a case of “post-human” ventriloquism by way of cyborg-like voices (e.g., Radiohead’s “Fitter, Happier”), the technology used here is derived from a funk-based lineage (Goodwin calls this “connecting machines and funkiness”) that emphasizes the humanness, the *realness*, of the rapper.⁸⁷ I would argue further that Dr. Dre’s emphasis on not textually signaling the borrowed material directly (i.e., not digitally sampling or making it sound sampled) helps contribute to this particular sense of realness.

An example typical of Dr. Dre’s early 1990s production that demonstrates this hybridity of material and suitability for automotive listening is the Dr. Dre–produced single “Who Am I? (What’s My Name?),” the debut single from Snoop Doggy Dogg’s *Doggystyle* (1993). The synthesized sounds include a Roland TR-808 drum machine and a Moog synthesizer bass line derived from Tom Browne’s “Funkin’ for Jamaica” from the album *Love Approach* (1979). The basic beat is repeated throughout the song and changes texturally in terms of layering rather than in dynamic range, as it is likely that heavy dynamic compression was used in production to elevate the volume over the road and engine noise of a car

(see the waveform in fig. 3.3) The “Snoop Doggy Dogg” line, collectively sung in the intro, is from Parliament Funkadelic’s “Atomic Dog,” and the second vocal line is from Parliament’s “Tear the Roof Off the Sucker (Give Up the Funk),” melodically virtually the same but placed on a different harmonic backdrop/frame/chassis. Vocal line 3 is a quotation of vocal effects from “Atomic Dog”: “Bow wow wow yippie yo yippie yay.”⁸⁸ What I call the “guitar intro” (measures 1–2) is a sample from the Count’s “Pack of Lies” from the album *What’s Up Front That Counts* (1971), a two-measure excerpt with guitar and saxophones. Foregrounded lyrical textures travel among Snoop Dogg’s laid-back verses, singing in the chorus, and Zapp-like vocal effects (as Zapp frontman Roger Troutman was known primarily for his use of the “talk box”). The track ends with vocals from an uncredited female voice, which sings improvisational-sounding melismas on the name “Snoop Doggy Dogg.”

After the two-measure guitar intro, the basic beat begins (example 3.2). The three verses are primarily rapped by Snoop Doggy Dogg, although Dr. Dre recites a few lines at the end of the first verse. The lyrical topics of the song focus on Snoop Dogg’s debut as a solo artist, bragging

(0:00–0:06)	“Guitar intro”	(2 measures)
(0:07–0:26)	Chorus	m. 3—Basic beat begins (4 measures) + Vocal line 1 (4 = 2 + 2 measures)
(0:27–0:56)	Verse 1	(12 measures)
(0:57–1:15)	Chorus 2	Vocal line 1 (4 = 2 + 2 measures) + Vocal line 2 (4 measures)
(1:16–1:46)	Verse 2	(12 measures)
(1:47–2:05)	Chorus 3	Vocal line 1 (4 measures) + Vocal line 3 (4 measures: “Bow wow wow yippie yo yippie yay” from “Atomic Dog”)
(2:06–2:35)	Verse 3	(12 measures)
(2:36–3:14)	Chorus 4	(Double chorus)—Vocal line 1 (8 measures) + Vocal line 2 (8 measures)
(3:15–4:05)	Coda	twenty measures of female vocalist singing “Snoop Doggy Dogg”

TABLE 3.1. “Who am I? (What’s My Name)?” Song Structure

From *Doggystyle* (1993), produced by Dr. Dre (Andre Young)

Example 3.2: Snoop Doggy Dogg "Who Am I? (What's My Name)"

about his lifestyle, the locality of Long Beach, and his collaborations with Dr. Dre.⁸⁹ Interestingly, in the music video for "Who Am I?" (directed by rapper Fab 5 Freddy), Dre's portion of the rap includes a visual of him standing next to a white car in front of a house similar to the one in "G' Thang." Though the narrative of the music video has little to do with the automobile, "Who Am I?" still demonstrates the centrality of the auto-

mobile to Dr. Dre's lifestyle and status. In the song, each chorus always contains at least one four-measure iteration of vocal line 1 (consisting of the repeated two-measure phrase), but each chorus is slightly different, mixing multiple elements from the George Clinton songs that Dr. Dre interpolates. As was characteristic of his production style at the time, Dr. Dre borrows from multiple different songs and uses them to construct a verse-chorus form. This is a "simple verse-chorus" form,⁹⁰ in that the harmony does not change between verse and chorus, and it is noteworthy that he was able to tailor material with relatively static harmonies into a repeating four-chord pattern (bm, bm/A, G, F#7). The synthesized bass line and high-pitched synthesizers on "Who Am I?" are consistent with styles used on *The Chronic*. In fact, "F—wit Dre Day" from *The Chronic* is strikingly similar to "Who Am I?" in terms of the timbre of the bass line, its harmonic motion, and the use of high and low synthesizers.

While drum sounds and beats from funk had been used since the earliest days of digital sampling in hip-hop, these were usually drawn from the earlier funk of James Brown (e.g., "The Funky Drummer") and other recordings from the late 1960s and early 1970s, such as the Incredible Bongo Band's version of "Apache" (1972). Dr. Dre, in contrast, borrows funk music from a decade later, largely from the late 1970s and early 1980s in this example, reproducing stylistic characteristics such as synthesizers and vocal effects.

The decision to open with an early 1970s sample ("Pack of Lies") that never returns in the song may demonstrate a conscious shift in funk

Musical Phrase	Derived From
Moog bass line	Tom Browne's "Funkin' for Jamaica" (1981)
Vocal Line 1	George Clinton's "Atomic Dog" (1982)
Vocal Line 2	Parliament's "Tear the Roof Off the Sucker (Give Up the Funk)" (1976)
"Talk box"	Zapp-style (1978–80s funk band)
Low vocal effects and Vocal Line 3	"Atomic Dog" (1982)

TABLE 3.2. "Who am I? (What's My Name)?" Derivative Phrases

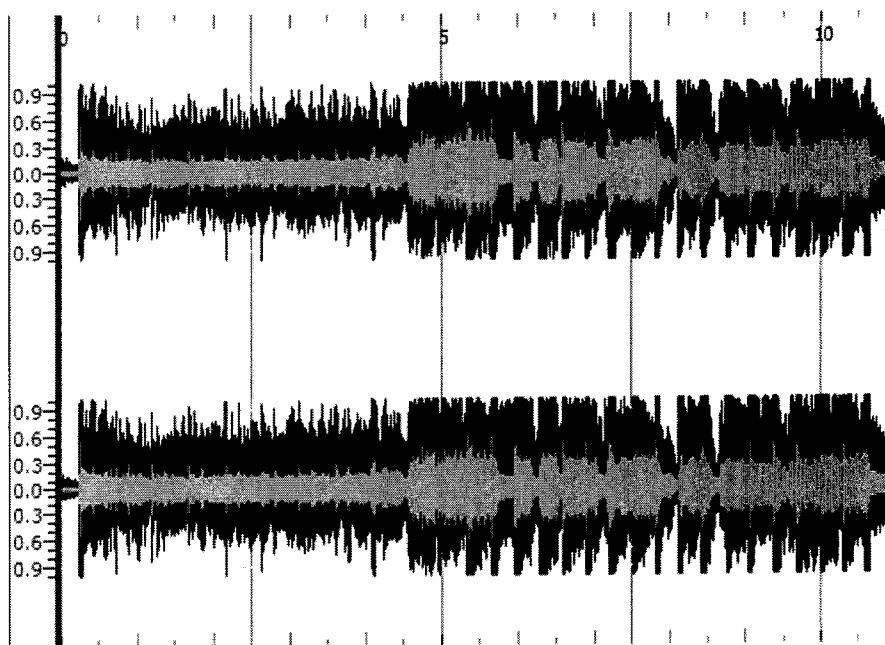


Figure 3.3: Opening of "Who Am I?" Waveform (from Sonic Visualizer). Measures 1–2 (Intro), measures 3–4 (basic beat).

sources, as Dr. Dre has expanded the hip-hop sound palette to reflect later funk developments for the rest of the song's duration. The song opening, with a digital sample quickly yielding to an unsampled basic beat, in a way authenticates this conscious shift. Richard Dyer, in his book on pastiche, includes a chapter on pastiche works within works. He cites the newsreel in *Citizen Kane* (a film within a film) and the play "Murder of Gonzago" within *Hamlet* (a play within a play). Dyer writes that the "effect of the inner pastiche is to authenticate the outer form."⁹¹ In a way, though this "inner pastiche" occurs at the opening of the song, the purpose of the sample is to contrast with, and authenticate, the realness of the song proper.⁹²

As can be heard in the contrast between measures 1–2 and measures 3–4, the basic beat of the song appears stretched so that it fills the extreme ranges of its amplitude, something that would be ideal for loud

George Clinton "Atomic dog" from *Computer Games* (1982)

Voice

D

A - tom - ic D - o - o - o - og

Snoop Doggy Dogg "Who am I?"

3 Bm Bm/A G F#7

Snoop dog - gy do - o - o - og

Example 3.3: Comparison of vocal line 1: George Clinton, "Atomic Dog," and Snoop Doggy Dogg, "Who Am I?"

environments such as the rumbling noises of an automobile. The graphic representation of the audio signal in the waveform below shows the differences between the "guitar intro" and the "basic beat" (see Fig. 3.3).

In the waveform, the x-axis represents time, and the y-axis represents the voltage level of the audio output. The waveform signal shows that the overall amplitude appears expanded compared to the intro and suggests the use of dynamic range compression on the basic beat. The effect is that from measure 3 through the end the song sounds "louder" and more "filled out" than in the intro section, consistent with Dr. Dre's desire to fill the automotive listening space.

By rerecording vocal lines from preexisting sources, Dr. Dre can change the harmonic framework of phrases and adapt them to any given harmony. In vocal line 1 above, for example, the original version contains a harmonic backdrop of D for the duration, whereas the new version has a bass line that suggests a descending progression (bm, bm/A, G, F#7). This creates a different effect, one of less static harmonic motion, including relatively strong movement to the dominant before returning to the tonic every two measures. Despite the harmonic differences, the melodic line is similar enough that the allusion to "Atomic Dog" can still be easily recognized. In the Snoop Dogg version of vocal line 1, a group sings the melodic line, a quotation that directly signifies the Parliament-style, collectively sung choruses. Both versions repeat the two-measure phrase as well. Lyrically, Dr. Dre takes advantage of the dog/Dogg connection by

Parliament "Tear the roof off the sucker (Give up the Funk)" from *Mothership Connection* (1976)

Voices

"Who am I?" Second Vocal Line

Voices

Example 3.4: Comparison of vocal line 2: Parliament, "Tear the Roof Off the Sucker," and Snoop Doggy Dogg, "Who Am I?"

quoting dog references from "Atomic Dog" at multiple points in "Who Am I?" (Example 3.4 above).

A similar tailoring occurs with vocal line 2. Once again, the original from George Clinton's Parliament has a funk groove over just one chord, this time an E7. There are multiple voices singing in both examples (both shift from monophony to homophony), and the harmonies have changed to reflect the implied harmonies of the new bass line.

The contrast between the high and low synthesizer frequencies in "Who Am I?" and other examples in that style is particularly effective in car sound systems, where the highly directional tweeters can exclusively support the high-end frequencies, and the power of the subwoofer(s) produces corporeal sensations from the bassline. The "human sounds" (e.g., Snoop's rap, the collective voices, and the female voice at the end), their locus in the frequency range easiest for humans to hear (3kHz–7kHz), will be supported by woofers/midrange speakers, which require much less power than a subwoofer.

The styles utilized in G-funk (including late 1970s/early 1980s P-funk, R&B, and the simple verse-chorus form), largely pioneered in rap music by Dr. Dre and his collaborators, spread their influence over a number of subsequent groups. One example of a rap song that shares timbral style with Dre's G-funk is the song "Thuggish Ruggish Bone" by Bone Thugs-n-Harmony from their album *Creepin On Ah Come Up* (1994), which uses a mix of high synthesizer, low bass, and the singing

of Shatasha Williams. Though G-funk was considered a "West Coast" style, it was also used by artists said to represent the East Coast. For example, the Notorious B.I.G.'s "Big Poppa" (1994) used a high-pitched synthesizer riff derived from the Isley Brothers' "Between the Sheets" in the style of Dr. Dre's production.

Synthesized sounds, dynamic range compression, and prominent bass frequencies are but three elements that seem to be highly compatible with the automotive soundscape. The experience of automotive listening is a synthesis of musical technology and automotive technology, which must coexist to be successful; I would argue that a certain aspect of popular music records can be analyzed through this particular, historically specific compatibility. Like the car-driver/driver-car relationship, hip-hop recordings are a mix of "human" elements and technology, a mix of human and human-made machine. Consideration of a particular listening space, the transfer function of loudspeakers and their resonant frequency, should be acknowledged as an important component of the subject position in the listening experience.⁹³

As we consider the automotive soundscape in hip-hop recordings, we should allow for alternatives to traditional analysis that accommodate the way that music producers think of sound (in terms of frequency rather than pitch, in a Western notational sense).⁹⁴ Frequency, playback spaces and speakers, and the hybrid human-machine element of recordings are all undertheorized facets of popular music production and the automotive listening experience.

Conclusion

As a product of place- and space-specific urban car cultures, Dr. Dre's production techniques reflect a desire to customize and tailor sounds for the automotive soundscape. Automobile production, geographical specificity, and other mediating cultural practices such as car customization cultures have shaped Dr. Dre's and other producers' music production techniques. Perhaps car audio, like the streamlined outer appearance of many automobiles, provides the illusion of unity, sonically suturing the inconsistencies or ruptures in the fragmented bodies of culture, ideology,

and subjectivity; like hip-hop music, the automobile is a unique, almost paradoxical hybrid: both public (on the road) and private (owned), a site of mastery and womblike comfort, of human and machine, symbolizing freedom and dependence (on petrol), at times transcendent and at other times suffocating, a fantasy object and the cause of trauma and nightmare, an object-cause of desire and a cause of stress (traffic jams and road rage), a "symbolic sanctuary"⁹⁵ and the cause of numerous fatalities.

Jonathan Bell, in writing of the car's influence on architecture, comments that "our experience of the city, and hence our response to architecture, is almost exclusively conducted through the medium of the automobile: the car defines our space whether we are driving, being driven, or avoiding being driven over."⁹⁶ Marsh and Collett write that "it is because the car has so much personal value that we have been, and are still, prepared to alter radically the environments in which we live in order to create societies in which the automobile can feature so centrally."⁹⁷ The automobile has had a tremendous amount of influence on many realms of life, a fact that has yet to be thoroughly researched. And if the car does indeed define the spaces in which we live, and the automotive space is largely experienced in terms of sound, then one could say that sound (as mediated through the automobile) and our sense of space mutually influence each other.⁹⁸

There are numerous levels through which one could investigate the automobile's influence on the world's soundscapes, such as the individual experience of car drivers, the influence of the car on music production, car audio subcultures, and larger national and transnational trends.⁹⁹ In 2005, it was estimated that there were over seven hundred million cars on the world's roads;¹⁰⁰ this statistic suggests that automobility will continue to be a pervasive force in the decades to come, continuing the ever-shifting social, economic, and political forces that shape the automobile and the object's influence on multiple realms of societies. This chapter presents borrowing practices in hip-hop that are particularly conscious of idealized playback spaces, encouraging analysis of particular modes of listening, modes that have in turn inflected the way music recordings are produced.

CHAPTER 4

THE MARTYR INDUSTRY

Tupac Shakur, the Notorious B.I.G., and Postmortem Sampling

Posterity is to the philosopher what the hereafter is to the believer.

—DIDEROT¹

The hero of yesterday becomes the tyrant of tomorrow, unless he crucifies *himself* today.

—JOSEPH CAMPBELL, *THE HERO WITH A THOUSAND FACES*

Picture yourself goin' out as a hero

Picture mural pictures of us painted all over street corners

Fans meet to mourn us, while we meet the coroners . . .

Biggie's back and 'Pac's, landmarks, history in rap.

—EMINEM, "IT HAS BEEN SAID," *NOTORIOUS B.I.G. DUETS*:

THE FINAL CHAPTER (2005)

Posthumous Fame, Popular Music, and Society

Featuring a number of West Coast rappers such as Ice Cube, Eminem, Snoop Dogg, Dr. Dre, and many others, the 2000 *Up in Smoke Tour* stage show included an interlude where Dr. Dre and Snoop Dogg gave tribute to a number of rappers who had passed away (e.g., Easy E, Big Pun, and Notorious B.I.G.). They saved rapper Tupac Shakur (who recorded under the name 2Pac) for last, and the audience can be seen in DVD footage standing up, cheering enthusiastically for the deceased rapper. The 2Pac song "Gangsta Party" plays over the loudspeaker as Snoop asks, "Do y'all love Tupac?" The audience responds, "Yeah." The exchange proceeds as follows: