Dave Tompkins. 2010. How to Wreck a Nice Beach. Chicago and Brooklyn: Stop Smiling/Melville House.

Steve Goodman. 2010. *Sonic Warfare*. Cambridge, MA and London: MIT Press.

# Reviewed by Wayne Marshall

At first glance, Dave Tompkins's *How to Wreck a Nice Beach* and Steve Goodman's *Sonic Warfare* would seem to have a lot in common. Both books feature the creative "abuse" of military technology by musicians, an abiding appreciation for Afro-sonic futurisms, prose styles at times so idiosyncratic as to be arcane, and brief but key appearances by William Burroughs. Both also depart, whether implicitly or explicitly, from the general preoccupation with form still guiding the musicological status quo. This formalist bias affects both how we tend to listen as well as how we write. Instead, these books, each in their own way, propose novel and provocative modes of grappling with and making sense (or nonsense) of music and sound.

In contrast to the lion's share of academic writing about music, these texts eschew too straightforward a tack. They take shape in a manner often as unpredictable as their strange and slippery subjects. Goodman's work, while principally written for other scholars, proceeds in a seemingly nonlinear manner, using non-chronological dates to mark each brief chapter, suggestively (but often without explication) yoking each unit's theme to a particular historical moment. His lexicon is at times dense, at other times playful, bearing the marks of British cultural studies, continental philosophy, and Afrofuturism. Writing for a more general audience, but in perhaps an even more abstruse register, Tompkins generally proceeds chronologically while juxtaposing chapters on military experimentation with those on musical innovation, an estranging effect that serves to heighten the topic's unexpected intersections of Cold War technology and hip-hop. Neither author talks much about pitch content, harmony, or song form; in place of musical transcription, we encounter viruses and anarchitectures, robots and dinosaurs.

In other respects, these books could hardly be more different, especially with regard to tone and language. But reading them together makes for a refreshing exercise. By investing in and projecting their own idioms so strongly, both offer something sorely lacking in music and sound studies: theory that dances.

Tompkins's book is a study of the "double life" of the vocoder, which, for those who aren't aware, is "perhaps the only crypto-technology to serve the Pentagon and the roller rink" (20). A vocal encryption process that enjoyed a second life as a musical effect, the vocoder attained a sort of audible ubiquity in the dance-pop of the 1970s and '80s, appearing on hundreds of records and spanning such disparate genres as progressive rock and electro-funk. Appropriately, in rendering this amazing story, the author himself becomes a cryptologist. Because Tompkins is not an academic and not beholden to its disciplines, he hardly writes like one. But despite publishing regularly in such outlets as the *Wire*, *Vibe*, and the *Village Voice*, he doesn't exactly write like a journalist, either. He writes like Dave Tompkins, "the best hip-hop writer ever born," according to a back cover blurb by hip-hop historian Jeff Chang. Chang is similarly lauded, and only half joking.

Tompkins describes writing the book as something that he felt he "owed" to hip-hop, and he has clearly absorbed—and made his own—hip-hop's love of language, whimsy and slippage, and orthogonal riffs and sudden twists. In some cases, it is not clear that anyone but Tompkins will understand how certain non-sequiturs actually follow. Plenty of readers will be frustrated by passages that defy comprehension. I recommend granting him some poetic license and going happily and dizzily along for the ride. Tompkins manages something that few music writers do: to rise to the occasion, to meet what Charles Seeger called "the musicological juncture" head-on, to make words make sense about sound—or, when such a task seems utterly impossible, to sing along in noise and nonsense. The book's title embodies this fundamental problem as well as Tompkins's tack. How apt that the phrase, a machine-mangled version of "how to recognize speech," also happens to describe what happened, as coordinated via transatlantic vocoder duets between Roosevelt and Churchill, at Normandy or Iwo Jima. This is one of dozens of landmine-like puns that Tompkins finds scattered across IBM technicians' notebooks, in wartime cables, and on obscure electro-funk jams. Is it only a coincidence that one of early hip-hop's deftest musicians, Pumpkin, bears a nickname that was also a misheard word in a Churchillian vocoder transmission (224)? Most likely, but Tompkins doesn't miss a chance to make the connection for us in a cheeky caption. (The book's margins are crawling with such side-commentary.)

Or take, for example, though no single passage can stand for the sprawling range of his style, the following description of Peter Frampton performing his talk-box anthem, "Do You Feel Like I Do," in the concert immortalized as *Frampton Comes Alive* (1976):

Imagine ice cubes and Doritos cracking up inside your head. Replace that with Madison Square Garden losing its voice. Replace larynx with guitar. Listen to teeth. Calcareous conduction. Frampton opens mouth, drool catches light and there it is, a word, or at least the shape of one. "Eeeeel." (131)

Without sacrificing the sort of economy on display here, Tompkins seems to squeeze into the book every bit of signification he can, enlisting chapter titles, subheadings, captions, epigraphs, and all manner of marginalia. In particular, the creative use of oblique epigraphs illustrates how Tompkins approaches his craft and burdens his reader. They are figurative, funny, and sometimes fictional. (On page 281, for instance, he offers a lyric he "misheard" on a Mobb Deep recording).

Research and reading are interpretive endeavors, and Tompkins's kitchen-sink style, where jokes and personal anecdotes sit alongside archival documents and vinyl plates, serves to remind readers that, as with vocodered vocals, it helps to know what is going in to understand what is coming out. In this sense, it is fitting that the author weaves stories of his youth, and of myriad odd encounters with the vocoder and other talking machines, into the narrative. Indeed, the idiosyncratic inflections that give the book its distinct shape and tone seem, to this reader, among the text's most important (and hopefully influential) features. Tompkins splices together the personal, the popular, and the geopolitical, as if all are of equal importance. He also does an admirable job of cross-fading the crosstalk about this machine and how it affected so many lives, including his own. After a while one starts to suspect that the vocoder was invented so that Tompkins could write this book.

While the vocoder never recedes from earshot, Tompkins's investigation takes the reader to many unexpected places. Among other things, readers receive: 1) an overdue and alternative narrative of early hip-hop that centers on New York, Los Angeles, and the seemingly peripheral but fascinating site of North Carolina, where Tompkins grew up and where we learn a lot about rap's early circulation and reception; 2) a secret history of late twentieth century robot-enraptured pop culture, connecting Neil Young and Herbie Hancock, Georgio Moroder and Laurie Anderson, and Detroit techno with Disney's Dumbo; 3) truly astounding and unexpected musical genealogies and circulations of material culture, such as the story of how a vocoder-ed imitation of a record executive saying "fresh" became the most scratched syllable of all time (250-5), or how ELO's machine ended up in the hands of Man Parrish, "the gayest vocoder expert to make a hip-hop ode to the Bronx" (212). The book also includes what must have felt like an obligatory afterword on Auto-Tune (302-3), the popular software plug-in often mistaken for the vocoder, but which is actually a distant cousin that also emerged from Cold War science to help people sing like machines.

It is easy to be glib about crooning cyborgs, but Tompkins offers a more nuanced portrait—a gallery, actually—of how humans dance with technology, of the deep drive many have to transform, with a little mechanical help, our voices, our realities, and ourselves, often from an early age. As Tompkins writes, "talking to fans is as much a part of growing up as interrogating ants with a magnifying glass" (268). In the end, the book is less about machines than human characters: Alan Turing and Afrika Bambaataa, Homer Dudley and Michael Jonzun, and Tompkins, his late brother, and his childhood friend, Nate. One of the most touching parts of the text is the penultimate chapter, a profile of vocoder devotee and pioneer Rammellzee, the *sui generis* hip-hop iconoclast who passed away in the early part of 2010. It reads as a fitting coda to the work.

Although he synthesizes an impressive amount of odd information, Tompkins burdens readers additionally by taking a great deal of knowledge (or perhaps just Google-ability) for granted. This assumption sometimes allows him to say what he wants rather than, perhaps, what he should. This represents another way that the author departs from certain scholarly norms. (There's no glossary, either.) But don't get your cables twisted: despite few genuflections to standard scholarly procedure, Tompkins has done his share of research, especially when it comes to combing archives and interviewing everyone from retired World War II-era scientists to classic rock icons, to hip-hop vocoder freaks. (To their credit, the hip-hop artists he talks to—Bambaataa, Grandmaster DXT, Rammellzee—are all convincingly unsurprised to learn about the vocoder's crypto-military provenance.) This book was a decade in the making, but it reads more like a life's work.

Finally, and not to be underappreciated: the book itself, published by Stop Smiling Books, is a beautiful thing. Elegantly laid out and lavishly illustrated, with photographs and drawings appearing on nearly every page, it is best appreciated as a chunky hardcover, despite that it might be fun—whenever the e-text arrives—to hear it read by a robot.

In *Sonic Warfare*, Steve Goodman, a lecturer in Music Culture at the University of East London, calls the vocoder "the upside to the militarization of everyday life" (166). It is one of the few optimistic notes in the book. The rest of the text examines all the downsides, with particular attention to the role of sound—and sonic technologies—in producing what Goodman calls, after Mike Davis (2000), an "ecology of fear," a sonically triggered state of agitation and foreboding, produced under an increasingly global regime of "military urbanism" and the looming threat of preemptive capitalism foreclosing possible futures. On the way, Goodman proposes some radical ways of approaching how we theorize sound, the transmission of culture,

and the power of popular music. *Sonic Warfare* is an occasionally paranoid, consistently provocative text, all the more so because of how it takes explicit aim at prevailing frames of musicological inquiry.

Unlike Tompkins's book, which mounts an implicit critique of contemporary music writing, Goodman's includes direct salvos at music and sound studies. If, as he says, the Italian futurists proposed an "assault on the harmonic order" (6), Sonic Warfare might be said to launch a similar campaign. Goodman's route to a critical position vis-à-vis musicology's "harmonic order"—its lingering biases toward musical form, semiotics, and phenomenology—is not via recourse to sound, seeking to flatten longstanding hierarchies between pitch content, rhythm, timbre and the like, but through a focus on frequency and an exploration of what he calls "unsound." Vibrating at or beyond the peripheries of the audible and the tactile, unsound includes infrasound (lower than 20 Hz) and ultrasound (higher than 20 kHz), as well as—in a bit of poetic license—the "unactualized nexus of rhythms and frequencies within audible bandwidths" (xv). It may come as little surprise that many of the weapons surveyed in Sonic Warfare target this synaesthetic threshold of the heard and the felt. The way that sound and unsound can physically affect bodies means that, for Goodman, they operate at the level of affect, a "subsignifying" realm. He is primarily concerned, then, not with "sound as text" but rather "sound as force" (10). For those in music or sound studies who might bristle at an approach so concerned with what "impresses on but is exterior to the sonic," Goodman throws a small but sharp dart, referring almost dismissively to "the narrowband channel of the audible" (9)!

Ultimately, he contends, a "nonrepresentational ontology of vibrational force" (xv) can productively "sidestep" recent preoccupations of music studies, namely "representation, identity, and cultural meaning" (9). While not naming names, Goodman professes no love for popular music studies' "dismal celebrations of consumerism and interminable excuses for mediocrity" (17). (He also includes some snarky asides, for instance, when he remarks that this is not a book about "white noise—or guitars" [xv]). While acknowledging recent work on the use of music to produce pain or torture (e.g., Cloonan and Johnson 2002; Cusick 2006 and 2008), Goodman seeks to counter "the evangelism of the recent sonic renaissance within the academy" by focusing on sound's "bad vibes," including the use of pop as torture, never mind LRAD cannons and Mosquito<sup>TM</sup> repellents. Further, he charges that any account of sonic culture must grapple with that which exceeds unisensory perception, with so-called "sonic" experience that opens into tactile realms, for instance (9).

Barbed critiques notwithstanding, Goodman is writing from sound's

corner. While his academic training and affinities span media and cultural studies as well as philosophy, his scholarly attention has been devoted to the reggae-inflected sound system culture of the Black Atlantic, especially the UK-based genealogy of styles and approaches—from jungle, through garage, to dubstep—famously and controversially dubbed "the hardcore continuum" by critic Simon Reynolds; moreover, under the moniker Kode9, Goodman is a practicing producer of electronic dance music, a globe-trotting DJ, and the head of acclaimed record label Hyperdub. Notably, he seems to prefer metaphorical language that borrows from sound, rather than from ocularcentric discourse. So we're told that vibrational force is an important missing dimension in music and sound studies because of the "ethicoaesthetic paradigm it beckons" (xv, emphasis mine). We also hear of things resonating and rippling, while modulation, if borrowed more directly from Deleuzean philosophy than compositional techniques, figures as a key term throughout. But while such subtle linguistic choices may stem from efforts to resist an ocularcentric framework, Goodman's focus on sound as physical force, as something subpolitical and pre-ideological, is intended to needle the more profound bias in music and sound studies toward an overriding emphasis on phenomenology and signification, rather than ontology and affective mobilization. For Goodman, such preoccupations miss the boat by overlooking the more elemental workings of sound. His wide-ranging and deeply synthetic project—drawing from philosophy, cultural studies, physics, biology, fiction, and military and musical history (81)—constitutes an important and incisive contribution to our growing, shifting appreciation of how sound works and how it figures in the sensorium.

Opening with the 2005 sound bombing of the Gaza strip, Goodman's narrative would appear to be firmly situated in a certain politics, but the author also takes pains to theorize at a more micropolitical level. He seeks to understand and explicate how sound produces "virtualized" fear in individuals as well as populations, whether in Palestine or elsewhere. Like the sound of an actual incoming shell, sound bombs and other sonic weapons possess power to trigger "the same dread of an unwanted, possible future" (xiv). Considering military-urbanism's "full spectrum dominance," an analysis of how sound works—and how certain technologies exploit sonic force—is imperative. For Goodman, the sonic is "particularly attuned" for examining "dread," one strand of the ecology of fear, or one key dimension of the affective status quo at a historical juncture in which the "militarization of the minutiae of urban experience" turns war into an "ontological condition" that "reconstitutes the most mundane aspects of everyday existence through psychosocial torque and sensory overload" (33). As an "affective tonality,"

modulated by vibrational force, fear enters the remit of sonic warfare. Thus, even while writing against a "unisensory" perspective (and continually returning to sound's crucial "viscerality" [220]), Goodman finds it useful that, within the affective sensorium, "sound is often understood as generally having a privileged role in the production and modulation of fear" (65).

In Goodman's definition, sonic warfare extends beyond obvious weapons such as sound bombs and nausea-inducing crowd-control devices to forms of (preemptive) sonic branding, including "predatory earworms" and holosonics (186), the precisely targeted "beams" of sound that might implant a commercial jingle into a moving body. With regard to the latter phenomena, Goodman imagines a future in which we're bombarded with audio advertisements for products that don't yet necessarily exist to subconsciously build brand loyalty. Mirroring the unreliable and often occultist information about sonic weapons under development—whether issuing from government reports or press accounts, or circulating among conspiracy theory enthusiasts—Goodman is refreshingly candid about the ways that dystopic projections can seep into thinking about such matters: "For sure, a certain amount of paranoia accompanies this micropolitics of frequency" (188). The deployment of the Mosquito (a device used at malls and other quasi-public, commercial spaces that emits a tone so high it repels teenagers while remaining inaudible to adults) leads Goodman to write, with pun intended, "the future of sonic warfare is unsound" (183).

If this sounds rather dire, Goodman develops another side to the story of contemporary sonic dominance. Counterposed to the military-entertainment complex's insidious deployments of sound and unsound is another set of experiments in vibrational force and affect modulation: sound systems, patterned on the Jamaican model but today dispersed globally, serving as labs for "affect engineering and the exorcism of dread" (5). Considering Goodman's overarching concern with ecologies of fear, it is a convenient bit of resonance that a complex notion of dread is already emically embedded in reggae discourse. Goodman hears and feels the forceful—and often subsonic—projections of sound systems, whether playing dub reggae or funk carioca, as meeting a certain "masochistic" desire for the "active production of dread" (27) that he describes as "fear activated deliberately to be transduced and enjoyed in a popular musical context" (29). This is an innovative and suggestive reading of practices that have already been examined in great detail in the reggae literature (e.g., Bilby 1995; Stolzoff 2000; Henriques 2003; Veal 2007).

He pursues the idea of an alternative and recuperative practice of sonic dominance, and inflects it with a Black Atlantic (if not Jamaican) accent, by examining what he calls "dub virology," a model of "affective mobilization"—

later glossed as a way "to move the body in dance" (157)—rather than the "modulation of preemptive capital," the use of sound and unsound to manipulate mood and incite creativity and commerce (155). Goodman argues, without offering much detail about the techniques in question, that "the virologies of the Black Atlantic ... constitute a wealth of techniques for affective mobilization in dance," but that, in turn, "virosonic capital hijacks these techniques ... for modulation" (162). The "core focus" of an audio virology is, therefore, the "decreasing gap between mobilization and modulation" (162).

In chapters 24-27 Goodman carefully sketches out what is entailed by an "audio virology" and how such an approach is better suited than memetics for understanding how power relations infuse the contemporary circulation and transmission of culture. Given the intense uptake around memes in the Web 2.0 era, Goodman's intervention here is useful. If memetics carries an intrinsically cognitivist bias with its focus on information, an audio virology offers, in contrast, "a nexus that synthesizes the flows of information, matter, and energy into a virulent rhythmic consistency" (138). Such an "assemblage," according to Goodman (nodding again to Deleuzian philosophy) goes beyond memetics in recognizing that "replicators" are always "embedded in an ecology," that is, in a material environment. Memes themselves "are material processes," pulse patterns emitted by "billions of networked neurons." Rather than transmission networks, Goodman suggests we think of "affective vectors" and "affective contagions," and though he notes that we already have the fairly neutral but useful concept of affection available to us, a model of *infection* appeals to him as a way to "dramatize" the concern with power that he accuses memetics of lacking (130). Viruses, or virological models, are also important to Goodman because they pose "threats to cybernetic control societies" (179), the looming threat of capitalist affect modulation.

If there is a clear political agenda in this book, the most specific it ever gets is anti-capitalist, but the best way to characterize it might be, more broadly, anti-colonialist. Goodman's perspective is informed by the anti—and postcolonial discourses running through British cultural studies and Afrofuturism alike, and his concerns move from geopolitical frames to the more subtle micropolitical colonization of our thoughts, our bodies, our futures. For this reason, mobilization—and understanding sound's relation to it—stands at times as an idealized end in itself. Goodman stops short of discussing why one would want to mobilize collective populations, however, and he takes pains to distance his analysis from obvious ideological commitments. He is far more interested in "models for affective collectivity without any necessary

political agenda" (175). The battle ground for Goodman—and it *is* a literal field of combat—is the affective status quo, modulated by sonic weapons of all sorts. More generally, Goodman appears concerned with understanding "how audition is policed and mobilized" (189), which is not really the sort of question that musicologists ask. He makes a persuasive case that music and sound studies would do well to turn some attention to these topics.

The closest Goodman comes to offering an interpretation of sonic mobilization is to suggest that bass materialist affect modulation—the use of palpable bass frequencies to vibrate bodies—constitutes a "cultural pragmatics" that can "make existence bearable" in what is increasingly, again following Mike Davis (2006), a "planet of slums" (172). Theorizing across contemporary global sound system culture ("Planet of Drums"), Goodman argues that they construct "temporary bass ecologies to hijack sonic dominance" and to "attract and congeal populations" (173). But it would be naive, he contends, "to pretend that there is a necessarily politically progressive agenda" underlying the organization of sound system parties (174). Goodman's overall aim here is laudable: to shift focus from questions of content and meaning and toward understanding the "more basic power of organized vibration" (172). For the most part, this allows him to purposefully sidestep a great number of questions about the discursive realm. It's a provocative bit of bracketing, with enough barbs planted in the introduction and the footnotes to set seminar discussions ablaze.

Ultimately, Goodman allows sound to guide his project. He places sound, via vibration, at the center of everything. "One way or another, it is vibration, after all," he notes, "that connects every separate entity in the cosmos, organic or nonorganic" (xiv). Although his theories of affect and rhythm are underpinned by some heady philosophical discussions, stretching from Spinoza through Deleuze to Massumi, and connecting the dots between Bachelard, Lefebvre, Bergson, and Whitehead, Goodman claims to be less concerned with bringing theory to bear on sound than in the reverse. Instead, sound "comes to the rescue of thought," undermining the "linguistic imperialism" and "phenomenological anthropocentrism" that animate "almost all musical and sonic analysis." But rather than resorting to a "naive physicalism," Goodman asserts that what is key is "a concern for potential vibration and the abstract rhythmic relation of oscillation" (82). Using sound to unsettle theoretical frames, while synthesizing a diverse and demanding philosophical literature, Goodman's efforts recall more than any other recent work Shepherd and Wicke's ambitious Music and Cultural Theory (1997), another text that could have resonated more strongly in musicological circles.

It remains to be seen whether Sonic Warfare will speak to musicologists

and the increasingly transdisciplinary enterprise of sound studies. If I express some pessimism here about its potential uptake, that has more to do with the unorthodox and challenging dimensions of the text. While brimming with ideas and sharp provocations, the book sometimes seems designed to stymie comprehension. Although Goodman rarely takes anything akin to Tompkins's flights of fancy, his prose can be disorienting and at times nearly impenetrable. (At least there's a glossary for help). Although each of the mostly short chapters could be read as an autonomous "singularity," as the author recommends (xvii), there are several chapter-spanning sections of the book that sustain arguments, which, a la carte, might go unappreciated. (Chapters 15-20, for instance, elaborate on the philosophical core of "rhythmanalysis.") His use of non-chronological but pregnant dates to mark each chapter, although interesting conceptually, also proves problematic. Many of the dates go entirely without explication, so they can seem arbitrary or orthogonal to the discussion. As much as I appreciate and would like to see greater formal experimentation in music and sound studies, too often the organization of Sonic Warfare comes to feel like a conceit of sorts, an afterthought, or an evasion of hard, connective writing.

As the asymmetry in this joint review suggests, these books also differ insofar as one, written from within and directed toward the academy, is working at the level of an overarching argument that can be summarized, debated, and re-deployed in future research, whereas the other resists any sort of boiling down or segmentation. Tompkins's book is an irreducible thing, not least because of its often-untranslatable idiom, and I like that about it. I do not mean to privilege one or the other, nor to confer some greater degree of legitimacy on either. In the end, what makes these texts relevant to an academic readership—to those working in music and sound studies, whom I address here—should have little to do with their institutional pedigree or even their form and everything to do with how they contribute to rigorous debates about the place of music and sound in our world. Do their ideas effectively invite response, revision, and/or citation? Both books have the power to continue opening up the musicological conversation, to let some new vibes in, and to shake things around a bit.

Taken together, these books should help to retune (or is that detune?) the study of music and sound. They force us to ask hard questions of ourselves: What is our subject? What is our lexicon? How do we make sense of our audible past and present without foreclosing possible sonic futures? How do we engage, or ignore, the role of sound and music in the context of creeping, global militarism? If taken up with the vigor they merit, *How to Wreck a Nice Beach* and *Sonic Warfare* may better prefigure the future of music and sound studies than many other contemporary offerings.

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