THE SONIC BOOM

How Sound Transforms the Way We Think, Feel, and Buy

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The Principles of Sonic Branding

Sonic branding is the label people in my profession put on the process of achieving tangible effects with strategic, tactical holistic uses of sound. While sonic branding might be a relatively new term, smart intuitive creators of sound have experimented and documented best practices for decades. But even in this age, when people are obsessed with codifying all kinds of things into six-, seven-, or twelve-step programs, many still fumble their way through sound. They bolt it on without thinking thoroughly about the real experience it sets off (or ruins).

It's easy to believe you already know how sound works — after all, just about any human can tell when he or she is hearing a meaningful piece of music or a catchy jingle. Think about pop music. An upbeat Pharrell Williams or Katy Perry song may seem incredibly simple. But making a pop song is a challenging and nuanced process. A lot goes into the creation of an irresistible pop hook. And when you need that sound to do even more — to align with a brand or convey a specific message — now you're talking about a serious craft.

This chapter outlines the basic principles of sonic branding. They can be applied universally — they're just as effective for brand managers, marketers, and advertisers as they are for business owners, architects, party planners, and anyone who does anything with sound.

USE SOUND TO CREATE EXPERIENCES

The idea behind branding is that companies, makers of things or services, can tell stories or position their products as useful components in those stories. The most important question to ask about a sound is whether it makes you *feel* anything. Does it call to mind a specific memory or story? If not, that sound probably isn't fulfilling a precise, strategic function.

Some brands use sound and music to connect with cultural experiences and become part of the nervous system of a community. Look at how Doc Martens became the de facto footwear of punk rock, how Chuck Taylors became the shoe of indie rock, how Vans became the sneakers of skateboarding and surfing culture, or how Adidas became the go-to kicks in the golden age of hip-hop.

Others fail spectacularly at this. They make the mistake of confusing music their audience likes with music and sounds that create a more meaningful emotional connection with their story.

Aniruddh Patel, associate professor of psychology at Tufts University, has studied the curiously complex way the experience of sound plays out in film. Several of his experiments with his colleagues involved taking one film clip and substituting the score of another — something we've all seen done on YouTube, with hilarious results. But when Patel and his colleagues measured changes in viewers' perceptions, they found the impact went far deeper than they expected. "The obvious thing that we might all think is that the emotions change," Patel told an audience in 2013 during a presentation by the World Science Festival and the New York Philharmonic. But "the music, it's not just intensifying the mood. The music can create expectations about events that might be coming up next. It can lead to associations that aren't necessarily on screen. It can [help you] tell if the story is resolved or not. It can change the way you interpret characters in terms of their relationships. . . . It can really influence our sense of being inside the film."

Even when it isn't connected to a visual story, music can create a

complex experience that doesn't always match the message on the surface.

Elton John got this one right when he sang "Sad songs say so much." While sadness might be the subject of lyrics, or the song itself might be considered sad, the experience of listening to those songs can elicit positive emotions, according to a June 2013 study by Japanese researchers titled "Sad Music Induces Pleasant Emotion." The researchers played music excerpts and asked forty-four participants to rate the emotions they felt. "The results revealed that the sad music was perceived to be more tragic, whereas the actual experiences of the participants listening to the sad music induced them to feel more romantic, more blithe, and less tragic emotions than they actually perceived with respect to the same music," they found.

The content is one thing, but the experience is another, and it's much more powerful. This principle plays out in all kinds of scenarios.

In 2010, for example, executives at Harman International, the maker of JBL speakers and other brands in the multibillion-dollar consumer and professional electronics business, were freaking out. A bunch of big stories in the course of about a year claimed that modern technology consumers cared less and less about quality, particularly when it came to music. In one of the biggest such stories, published in 2009, *Wired* writer Robert Capps called it "the Good Enough Revolution." His story gave the Flip Cam by Pure Digital Technologies, a simple yet powerful video recorder, as an example of technology that didn't offer superior quality but was successful mostly because it was easy to use. (Flip would be bought by Cisco Systems before being discontinued in 2011.) Other examples of "good-enough" tech included drones instead of piloted jets in Middle East wars and do-it-yourself legal-document kits instead of actual lawyers. But a linchpin of the story involved digital music files on iPods — Capps argued that consumers had become so accustomed to compressed MP3 files that quality was now a slave to portability.

The *Wired* story cited a study by Stanford University music profes-

sor Jonathan Berger, who spent six years asking new students in his class to listen to the same music on different digital formats. Berger concluded that students actually *preferred* the lower-quality digital music files over the higher-fidelity ones. "They've grown accustomed to what Berger calls the percussive sizzle — aka distortion — found in compressed music. To them that's what music is supposed to sound like," Capps wrote.

This deeply bothered Harman execs. The company had staked its business on quality — its marketing tagline was "Where Sound Matters." What if sound didn't matter? What if they were wasting millions on tools such as fake ears to measure headphones' fit, near-silent anechoic chambers, and rooms with pneumatic-speaker shufflers that made sure speakers were arranged perfectly for listeners? Harman even built a dummy with binaural hearing (named Sidney, after Harman's founder) to test sound in cars. Could the company's entire business model be flawed? they wondered.

At the same time, the audio electronics market was experiencing a minor disruption from a year-old headphones upstart called Beats by Dre. Audiophiles quickly dismissed Beats as being too heavy on bass and muddy on other acoustic measures. Nevertheless, they were selling like hotcakes. Harman blamed this on marketing. Beats did have celebrity endorsements — gangster-rap pioneer Dr. Dre and Interscope Records chief Jimmy Iovine are cofounders, and pop-music royalty will.i.am and Lady Gaga are investors and endorsers of various models — plus, Beats made sure lots of celebs wore its headphones on red carpets and in videos (will.i.am actually wore a pair during a video shoot for the project I produced with him to refresh the venerable entertainment news program *Entertainment Tonight*). "They present them as a lifestyle fashion item, like a pair of jeans or a pair of Nike shoes," said Dr. Sean Olive, Harman's director of acoustic research. "The headphone becomes associated with this cool — it looks cool if I wear it around my neck. It's associated with a successful, hip-hop, urban lifestyle. That is a powerful message to the people who buy it."

But Harman and Olive were missing the big picture. They were focused on the sound, not the experience. Olive zeroed in on the claim, made by Berger, Capps, and others, that kids actually *preferred* bad sound. "I think our human ears are fickle," Berger told the *New York Times* in 2010. "What's considered good or bad sound changes over time. Abnormality can become a feature." The assumption, particularly with Beats, was that they satisfied young people's need to hear a bunch of bass over everything else. Some had gone as far as to suggest that booming bass is the modern sound of youthful rebellion ("Bass has *always* been the quickest way to piss off your parents and dazzle your eardrums," wrote Slate.com's Jesse Dorris in a 2013 story about the success of the headphones.)

Olive saw an opportunity to attack the science and, maybe indirectly, defend his job. He set up a double-blind study to prove that quality still mattered. Through a rigorously tested and verified process, he cloned the equalization and overall sound of several headphone types, including Beats by Dre, and ran each of those cloned sounds through a single generic over-the-ear headphone worn by test subjects. The idea was to control for form and feel and get right to the type of sound that both college students and trained Harman listeners liked best. The preferred headphone sound was neutral, spread across the audio spectrum, Olive found: "There was no evidence that these kids preferred headphones with boomy, bass-heavy sound." Using that and a handful of other tests, Olive and his colleagues proved the opposite of what *Wired* had argued and Stanford's Berger had found in his study. They ranked Beats last or next to last on a variety of measures associated with the concept of "good." In a scientific setting, kids didn't prefer bad sound. Also, to hear Olive tell it, Beats kinda sucked.

So Harman stayed its course. Its JBL brand rolled out a new high-end line of headphones, Synchros, similar in price and meant to compete with Beats by Dre's studio model. The big feature of the JBL headphones was LiveStage, a technology meant to make the sound heard through its headphones seem like it was coming from all around the

listener, not just in his head. Almost anyone with ears who listens to music with a pair of Synchros headphones can hear a remarkable difference in quality between these and headphones without LiveStage. To announce the new product, Harman had an open-bar event for a couple dozen members of the media and Harman's own sales team in a basement meeting room at the hip Ace Hotel in Manhattan. The headphones were set up on folding chairs in front of a stage. The idea was that guests would later put them on and listen to a performance by emerging singer-songwriter Trixie Whitley. Instead of listening to sound coming from amps or instruments on a stage, event-goers would all hear the performance through their Synchros headphones, a sort of silent concert. Anyone who tried to put on the headphones or test them out on his or her own iPhone *before* the presentation (which included a thirty-minute PowerPoint talk by Dr. Olive) was scolded by a company rep.

Despite all their research, Harman and *Wired* and Stanford's Jonathan Berger all made the same mistake. They presumed that people were making choices about sound based on the sound quality. They weren't, at least not primarily. A representative group of college students might have demonstrated in a lab that they preferred quality sound. But they didn't live in a lab. They were listening on the go, multitasking, using sound as a component in all kinds of experiences. The sound of Beats fit into the idea of how they lived their lives, their lifestyles.

Additionally, users weren't choosing iPhones and iPods because they preferred the sound of the MP3 format. They wanted beautiful-looking devices with dead-simple user interfaces that could fit in a pocket and transform almost any mundane experience into a musical one. As a bonus, these stark, rectangular gizmos made statements about users' appreciation of design. These weren't MP3 people; they were Apple people. Saying that people who listened to these portable music devices preferred low-fidelity sound was like saying kids (or adults) who drop everything and sprint for the ice cream truck prefer

low-quality treats. Hold a blind taste test between Mister Softee and Ben and Jerry's, and Chunky Monkey wins every time. It's not about the ice cream, and, for Beats, it's not about the sound — it's about the experience. The Beats company aligned itself with a community built on a certain sound — not just faceless low-frequency bass, but icon Dr. Dre's sound, the godfather of gangster rap whose touch as a producer influenced several generations of hip-hop. Distinctive-sounding (and -looking) headphones give people a way to put themselves in that story and ally with a community. Beats by Dre headphones don't boast the most acoustically precise listening experience, as Dr. Olive's double-blind tests confirmed. They offer the right kind of sound for the right group of people at the right time. Bass-y, low-end sound is what you expect in a club with stars of hip-hop and pop. You put the headphones on because they make you who you want to be.

Harman and their counterparts in consumer audio electronics have a deep understanding of the *science* of sound, and a healthy segment of consumers will always look for quality. Beats gets the *power* of sound to drive an experience. By late 2013, Beats had launched ten models of headphones, plus three different speaker systems, a branded HTC smartphone, a laptop and monitor with HP, and car-audio systems for Chrysler, Dodge, and Fiat. They all bore the iconic lowercase-*b* logo. And they all offered a sound that was boomier than similar devices', because that's part of the Beats story.

At the end of January 2014, the company launched Beats Music, a streaming-music service most assumed would compete with Spotify, Rdio, and others. But like the headphones, Beats Music was just a piece of the puzzle for a full-fledged lifestyle brand built on the idea of creating a music-driven experience.

"What we have right now, fortunately, is we have a very trusted name in music with Beats," cofounder Jimmy Iovine said in a conference call prior to launching the service. "We feel that it was step one to developing a complete musical thought."

Harman, which has been around since 1953 and produces a broad

array of professional and lifestyle audio products for homes, cars, studios, clubs, and more, expected to bring in as much as $4.25 billion in 2013. In late September 2013, Beats, which has been around only since 2008, announced a five-hundred-million-dollar investment from the Carlyle Group and was expected to pull in $1.2 billion in revenue for the year. It owned 64 percent of the market for headphones costing more than one hundred dollars, according to the NPD Group.

When sound is used to create experiences, it gives rise to a tremendous advantage, even for a six-year-old, muddy-sounding headphones company. Then in May 2014, reports surfaced that Apple was planning to acquire Beats. The rumored price? Three point two billion dollars.

MAKE SOUND MATTER: CREATE ANTHEMS, NOT JINGLES

Getting the right attention and keeping it requires a commitment to a meaningful aesthetic experience. This is true whether you are developing a workout or party playlist, a soundtrack for a video game, or a sonic strategy for a multibillion-dollar company. The latest pop hit might make your heart skip a beat, or a novel or loud sound might grab your attention for an instant, but unless you are clear about the experience you are trying to create, people won't remember it and you won't forge a connection. In the words of Maya Angelou, "I've learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel."

This is, again, where strategy comes in. If you're looking to associate your story with music or sound already out in the world, then you really need to know what your story is — why it's important, how it's different than someone else's story, how you want people to *feel*. Only then will you have something to measure the music against. Then you can ask, "Does this sound like my party [or film or show or store

or brand or cause], or someone else's?" Maybe you don't own the music you use, but if the curation *means* something, and you do it with a great deal of integrity and consistency, then you can end up like United Airlines, Target, Apple, or world-famous DJ Tiësto — with a clear musical zeitgeist that surrounds and resonates with your story.

If you're looking to create an original, ownable sonic identity for your story or your brand, and you're not creating an anthem, you're missing a huge opportunity. Think of the way national anthems can inspire people. Many sonic logos, especially in the form of snippets of sound dropped in almost exclusively at the ends of ads, are meaningless. You might remember them or recognize them, but they tell you nothing because you feel nothing. Without an associated long-form anthem, a sonic logo has no emotional memory to trigger. There's no context, no story, and usually no strategy.

It's important to understand the distinction between jingles and anthems. A jingle can be catchy, but only an anthem can carry a complete, emotional story. It packs the sonic themes that can be distilled, adapted, and reinvented into all sorts of musical styles. It's part of the glue that holds together movie franchises like the Harry Potter, Star Wars, James Bond, Lord of the Rings, and Pirates of the Caribbean films. In a sonic-branding process done right, logos and jingles are distilled from anthems. In Beethoven's Fifth, the section that goes *bum-bum-bum-buuuuuuuum* is the motif, which is analogous to the logo — it's part of the anthem. You might not be able to hum the rest of the tune, but you inherently understand that the line belongs to something bigger.

Think about the seven notes of "When You Wish upon a Star." They show up everywhere from the opening sonic logo of Disney films to the cruise-ship horn on the Disney Cruise Line. They remind you of the whole song in its context and, more important, how that song makes you *feel.* You hear those notes and your mind jets back in time to Disney's *Pinocchio* or a trip to a Disney theme park where you posed with oversize furry characters in front of the Magic Kingdom for a picture that still sits on your mom's mantel. If you

haven't done the strategic work of truly understanding your story and creating an anthem that's adaptable for all kinds of actual experiences with your brand, your logo probably reminds listeners of . . . your ad. Or, worse, it packs no emotion or memory at all. A logo or a jingle alone doesn't tell a whole brand story. And if that's all you have, you're doomed to fail. At the very least, you'll miss out on a lot of opportunities to help people *feel* your brand.

Consider what a sonic logo sounds like when it isn't attached to this kind of anthem or story. The television network ABC has used the same four notes for much more than a decade. Can you sing them? You can sing the three chimes of NBC, but that's because they've been baked into hundreds if not thousands of anthem and theme contexts and rearranged and reharmonized many times since 1929. Poor CBS tried to duplicate this success but failed, and Fox never even tried.

Once you have a strategy and an anthem, the basis of a sonic-identity system, then you can map the true DNA of that anthem and start using it to heighten people's experiences everywhere your brand goes. Where can sound make a big difference for your customers, your employees, or your partners? Be more like a big movie franchise, and *score the brand experience.* Think about all the places you see McDonald's branding. In how many of those instances do you hear it or feel it? Outside of the last three seconds of its television commercials, the brand is essentially silent. In most of McDonald's touch points (all the places where customers come in contact with the McDonald's brand), you could be hearing almost anything. If McDonald's used sound to its full advantage, people could be hearing and feeling its sonic story in overhead music in the stores, at live events it sponsors, from the toys it gives away, on its website, and more. The corporation could build contests around it, bring in artists to rerecord it, have it greet you at the door if you're the thousandth visitor of the day. But McDonald's doesn't do any of that. It's a huge missed opportunity for one of the smartest marketers in the world.

CURATE YOUR SOUNDTRACK

Soundtracks aren't just for movies. Everyone has his own personal soundtrack, whether it's the playlist streaming through his earbuds or the noises made by the people and objects he encounters in the course of the day. Sonic branders align with those experiences and amplify or steer them with musical moments that call attention to the right truths at the right time. The smartest ones find these opportunities everywhere.

Sound is really the emotional engine for any story. The soundtrack of a film triggers emotions, but research shows that it also does much more. If you change the score of a film, it can dramatically alter people's view of the relationships between its characters and their expectations of where they think the story will go. Music also triggers memories and connections. Hearing a musical theme that was established earlier in the film can suggest a sense of familiarity and poignancy. It's a kind of short-term nostalgia that sound best captures.

Horror-movie makers are the masters of using sound to drive emotion. Which is why, if you feel yourself getting freaked out in a scary film, you should cover your ears. You won't miss what's happening, and you won't get startled. Want a laugh? Watch the terrifying trailers to any of the Paranormal Activity movies with the volume turned down. Try to make it through a silent version of *Halloween* or *Friday the 13th* without falling asleep. The emotional and musical language of horror is actually extremely sophisticated in terms of action, story line, and character development. The soundtrack does a lot of heavy lifting. On a rudimentary action level, there are scenes where the soundtrack helps build tension, often with a moment of silence, which then sets up the scare. Equally powerful is the building of tension leading to a fake-out (no scare), or sometimes even a *fake* fake-out (no scare, quickly followed by a scare). With a fake fake-out, you relax after that tension only to be shocked by an unexpected jolt.

The cat, not the killer, jumps out. Then the killer leaps out from a different dark corner right afterward. John Carpenter, composer of the score for the Halloween franchise, is a master of this.

The right sounds can also relax you. Ambient background music can be a powerful tool for creating a bed of soothing sound. It's one of the secrets of W Hotels. Notice the sound at any W or other boutique hotel the next time you visit. The smart ones play tunes in the restaurant, poolside, and in your room as you first check in. It doesn't really matter if you love the music itself. Think about what you might hear if there was no soundtrack playing as you arrived in your room: the noise from the street below, the clanking of the air-conditioning unit on the building next door, or the conversation of the couple in the adjacent room. Hotels can't always control environmental sounds, but they can at least drown them out.

The next time you notice a sound, think about whether you're supposed to. Is it sticking out because it's too loud? Or did you notice it because it didn't fit the story? Was that on purpose? Most important, do the sounds you hear make you feel anything at all? Asking these questions can help you become more aware of the ways that sounds are manipulating you. Whether or not you welcome that manipulation will depend on the situation. Noticing who's good at this and why is the first step to figuring out how to more effectively curate the sounds you make and the way people hear them.

MAKE SOUND WORK HARDER

Short sounds are all around us all the time. I often refer to them as sonic triggers, because they can be the sparks that lead to physical actions or memories or feelings. You've probably responded to one in the past few minutes. Close your eyes for a minute if you're outdoors or in a crowded environment, and you'll probably hear one again within a few seconds. These triggers are defined by their ability

to convey a lot of information in an instant. Memory is a big factor here — what experience, recent or distant, do you associate with that short sound? New moms and dads will tell you they suddenly have heightened reactions to the sounds of babies crying — they hear it everywhere and it almost always startles them. The chirp of certain birds — a whip-poor-will or loon, for example — can call to mind particular times of year at specific places, probably by a lake or a body of fresh water. The sudden symphony of the wings of cicadas or locusts in the middle of the day can conjure memories of hot climates and summer months.

When sound is working at its highest potential, it surprises the ear. Have you ever been to a concert where the band has been playing all night, and then, just as they are nearing the natural peak of a song, it happens: *wham!* One note or beat radically changes the experience in a rapturous way, and you soar off into a completely unexpected musical direction. Chills run up your spine and you feel that rush. That's the band's boom moment. And it's built on surprise. As listeners, we tend to hear music in *moments.* They delight us as they extend the story of a song we think we know, and they break an expected pattern in our brains. Whether you are moved by the unexpected sound of Pete Townshend's guitar windmills, Haydn's Surprise Symphony, a cunningly altered note in a Charlie Parker sax solo, or the distinct growl of the pipes on Steve McQueen's tricked-out, definitely-not-standard-issue Mustang in *Bullitt,* these are all moments where expectations are set and then abruptly broken, resulting in a rush of endorphins and an addictive desire to have it happen again.

Sonic surprise is one of the oldest sonic tricks in music, movies, entertainment, and even advertising. You hear it whenever an actor's voice is intentionally replaced by the voice of someone from the opposite gender or someone younger or older than him or her. Or when an expected animal sound is replaced with a human one. It gets your attention. But getting someone's attention is the easy part. Effective sonic branding often involves creating or facilitating sonic triggers

that break expected patterns, get the listener's attention, and then using that attention to call to mind positive experiences with the brand or story.

We already recognize these kinds of snippets in the real world, and we pull information from them all the time. After all, what is a car horn, a referee's whistle, or a shot-clock buzzer? How about the school bell? Think about the satisfying sound a golf ball makes when you sink it or the clean successful swish of a perfect three-pointer in basketball. Each of these causes a thrill while confirming something or telling you what you need to know in the moment. They're almost Pavlovian, except they're initiating something far more complex than physiological reactions. This is bigger than drooling.

It's easy to use sonic triggers to turn a forgettable experience into something memorable and meaningful. In fact, you already do. You yell "Surprise!" to make a birthday party boom. You clap louder and shout "Bravo" when a performer is especially inspirational or above and beyond the expected. I know of a record label's radio marketing team that created their own boom moment to signal success when they were trying to get radio stations to play a new song they were targeting. Every time a major new radio station added that song to its playlist, the head of sales invited the person who made it happen to hit a gong, centrally located in the office. The short sound would cause everyone to cheer and try to figure out who had had a big success. The whole group felt optimistic about the win, which led them to more wins. It was a huge way to build office camaraderie and a culture of supporting people's success.

Sonic triggers can also be deployed as effective functional sounds. They can be a welcome or a reminder, provide vital information, or help you understand where you are. My mom used to ring an actual dinner bell. This bell served two purposes: First, I could hear it anywhere in the neighborhood. When I did, I'd instantly feel disappointed—I had to stop what I was doing and come home. But second, it reminded me that I was hungry, so I'd get excited and run home, hoping for mashed potatoes and meat loaf.

When you think about the short sounds cars make, you probably think about revving engines, horns, or squealing tires. You most likely don't think about the purr of an idling or a near-idling engine — but you'd think about it if it weren't there and you suddenly found yourself in the middle of an intersection staring at the grille of an oncoming electric car that you didn't hear coming.

In 2009, the National Highway Traffic Safety Administration (NHTSA) found that when slowing, stopping, backing up, or leaving a parking space, a hybrid-electric vehicle was two times more likely than a vehicle with an internal-combustion engine to hit a pedestrian. In January of 2013, the agency proposed new rules requiring electric vehicles going less than 18.6 miles per hour — that's the speed at which the sound of an electric car matches the sound of an idling internal-combustion engine — to emit warning signals that walkers, cyclists, joggers, and blind people could hear over typical background noise. The NHTSA said these warnings didn't have to sound like the annoying beeps of reversing commercial vehicles. (A noise likely to find you whether or not you're in the vehicle's path.) Carmakers would get to choose their own signals — rarely does government regulation present such opportunities for brands to have boom moments. Audi found one with its e-tron electric sports car; its engine-rev noise sounds like the light cycle in the Disney movie *Tron*.

These sounds, the NHTSA said, would save 2,800 pedestrians and cyclists from injuries for every model year of electric and hybrid vehicles. The rules were scheduled to go into effect in September 2014.

This is far from the only instance where sounds are perfectly suited to carry special meaning and save lives based on when and where they appear.

A Danish audio software company called AM3D markets its binaural headwear apparatus to firefighters; it allows them to know, in smoke-filled, nearly blind environments, where their team members are. They hear three-dimensional, spatially accurate sound cues. The company also markets the tech to the defense industry. It's used in some A-10 and F-16 fighter aircraft. Pilots receive audio alerts about

missiles or enemy fighters through speakers in their helmets, and in addition, the sound tells them, in an instant, what direction threats are coming from (including above, below, or behind them). Reacting to a visual warning takes about a second or so longer than reacting to an audio cue, and in a situation where a pilot has about five seconds to react to an incoming missile or enemy jet, that extra second is potentially lifesaving.

When used in gadgets, short sounds are typically called user-interface sounds. In my business we call them brand-navigation sounds. The term reminds us that they must be both emotional (the *brand* part) and functional (the *navigation*). The sound has to work harder, creating a sense of identity with the brand *and* making the technology more intuitive for the user.

The creators of one of the most popular games on the planet, Call of Duty, made short sounds work harder and become essential in gaming — gamers use the sounds to recognize surroundings and advance through levels. The makers of Angry Birds created a satisfying crunch and squawk to make you crave endless rounds of play, then used those sounds to trigger the same cravings in an endless array of toys and products and media. Product engineers and designers such as Jim Reekes created short sounds for Apple's early Macintosh machines — most notably, Reekes's Zen-like start-up sound, which lives on in the Macs we know and love today. All of these pioneers know a secret: we're entering an era of hard-working short sounds that help guide our experiences with everything.

SILENCE IS POWER

Humans aren't born with *ear*lids. So for most of us, there is no such thing as true silence. Want proof? Put on John Cage's *4′33″*, a piece of conceptual music without a single note. It's meant to make us aware of the sounds constantly playing around us. No matter where you are, no matter how quiet you think that place is, when you sit in it for

a while, you'll start to hear this symphony. Probably before Cage gets to his first chorus. (That's a sound-nerd joke.)

I spend a lot of time on this, along with my team at Man Made Music. A vast majority of our clients don't initially get it right, even the smartest of them. If sound or music is good for an experience, then more must be better, right? The fact is that often we spend weeks, months, or even years trying to remove meaningless or pointless sound from stories, shows, spaces, and brands.

Disney, however, is a company that gets sound. And it takes an exemplary approach to creating silence at Disneyland and Disney World. As long as guests are inside the park gates, they're not supposed to feel like they've left the fantasy. Still, not even Disney can control nature or the airspace above its parks. And nothing shatters the illusion of an old-timey Frontierland fantasy faster than a low-flying 747 jumbo jet. To guard against magic-killing noise, "We have to create a perceived quiet," says Disney's principal media designer Joe Herrington. "A forest and bird bed of sound can be perceived as quiet."

That's right. Disney uses sound to fake quiet.

It's a more powerful tool than you might think. Disney's fake quiet also works as a natural barrier between its lands. It would be jarring to hear the sounds of Tomorrowland while you were still strolling down Main Street, U.S.A. So perceived quiet in the parks lets you walk a hundred yards, cleanse your sonic palate, and feel like you're entering a whole new world. How much farther apart would the rides need to be and how much larger would the park itself have to grow to protect the magic if Disney hadn't learned this sonic secret?

As for pure quiet, you probably couldn't handle it. After about thirty minutes in a sound-swallowing space called an anechoic chamber, you might start to feel like you're losing your mind. The Orfield Laboratories in South Minneapolis is considered by Guinness World Records to be the world's quietest place — 99.99 percent of sound is absorbed by foot-thick concrete walls with insulated steel and 3.3-foot-thick fiberglass wedges. Even the floor is insulated this

way (you stand on a kind of wire support). No one has lasted more than forty-five minutes in the room without suffering severe discomfort. When you turn the lights off, the flat, disorienting space provides so little feedback in the form of sound waves that you have to sit. And when all of the outside stimuli gets sucked into the walls, the inside stuff gets loud. Your brain, so used to filtering out the constant barrage of vibrations from the world, starts picking up tiny sounds and bringing them to your attention. After just a half hour or so, you start to hear your own heartbeat, your organs squishing, the air moving in and out of your lungs, your joints creaking. "In the anechoic chamber, you become the sound," lab founder Steven Orfield told the UK's *Daily Mail.*

So if we eliminate the myth of silence, what is the opposite of noise? It's something more akin to white space, like in visual or print design. Silence is contextual, not absolute. And our brains are constantly adjusting that context — curating sounds, picking which ones to make conscious and which ones to file away.

There's another way Disney gets this right. On the Tower of Terror ride at Disney's Hollywood Studios in Florida or at Disney California Adventure, the scariest part is when you shoot to the top of a rickety old elevator shaft and dangle there in your seat for a few seconds. You hear wires and cables start to crackle and snap. You know you're about to plunge.

But in Tokyo, Disney wanted to make the experience even scarier. So they pulled out the sound at the climax of a key scene. Herrington and his team had the idea to use nearly absolute silence to heighten the tension. "The idea wasn't received well at all by management early on," he says. They thought it would take away from the experience. But the sound team convinced everyone to let them try it. You shoot up the elevator shaft just like the rides in Orlando and California. Then the door of your elevator car opens, and you stare off into space, the Twilight Zone, as it were. And the sound just echoes off into the nothingness. Gone are the snaps of wires and splintering

metal of cables. In Florida or California, if you ride the ride twice, you know exactly when you're about to drop. Even if you don't consciously count out the seconds, you have a sense. The sound prepares you for action, the way a movie score does. But pull that sound out, and the suspense is multiplied exponentially.

"It is absolutely terrifying, because you know you're about to fall but you don't know when, and it's dead quiet, and then you fall out of that silence. People are terrified. It was a huge hit," Joe says. "Silence is a powerful tool."

In fact, Joe and his team overshot the mark. According to Japanese park executives, the Japanese Tower of Terror profile was too scary. "It'd make you wet your pants," Joe recalls them saying. A year later, when they found that more college-age guests were coming to the park, the Japanese managers asked for three new profiles to give them something special and memorable. "They said, 'We really want to scare them.' It really made an incredible difference," Joe says.

It's important to know just when to take the sound out. Give it a shot and see what happens. If you're working on a product or presentation that involves sound, try taking out individual sound elements and listening to how it changes the overall effect. Turn down the sound at key moments when watching your favorite movie and see how the experience changes. Put on some sound-canceling headphones at home or at work and pay attention to what sounds are missing.

Sound anchors us in our world, gives a sense of what to expect, and completes our picture of ourselves in space. When that's gone, we can be left without any context and that can be terrifying. That can be useful if terror's what you're after. But pulling the sound out can also provide a break, a respite from a barrage of sound that allows our brains to reset before we crave sound once again. When adding sound to an experience, always be sure to pull it out one final time before you're finished. If you don't miss the sound, it probably shouldn't have been there in the first place.

DUMP THE SONIC TRASH

Just as sound is one of the most powerful tools we have to tell a story, the wrong sound is one of the most powerful ways to kill one. Simply put, sonic trash is any sound that diminishes your experience because it's wrong to you. As the multiple Grammy- and Oscar-winning composer Hans Zimmer puts it: "Get rid of the shitty sound. Life's too short."

In January 2010, Frito-Lay debuted a 100 percent biodegradable bag for its SunChips brand. The bag was designed to cut down on landfill waste, but it completely polluted the sonic landscape of customers and anyone within earshot. A Facebook group called Sorry But I Can't Hear You Over This SunChips Bag sprang up and gathered more than forty-four thousand fans. In a report about the bag, an enterprising television reporter for CBS found that, when shaken, the bag registered one hundred decibels, louder than a lawn mower (ninety decibels), a motorcycle (ninety-five decibels) or a subway (ninety-four decibels) — the reporter even shook the bag on a subway platform, and it cut through really loud sounds there. SunChips sales dropped every month, in year-on-year measurements, from the moment the bag debuted. Frito-Lay tried to add an adhesive to the material to cut down the sound. But ten months after announcing the bag, Frito-Lay said it was scrapping the crinkly nightmare. At least we know all of those bags broke down quickly in landfills.

The Oxford psychologist Charles Spence famously discovered how the crunchiness of chips and crinkly-ness of packaging influences perceptions of flavor and freshness, but SunChips took it several steps too far. It's a reminder that sound is never neutral. It always tells a story, and sometimes it's not the story you intend. You ignore it at your peril.

The noisy SunChips bag is an example of what I call sonic trash. It's a complete disregard for sound in storytelling. And in the case of the noisy bag, the wrong story was louder than the one Frito-Lay set out to tell. Other sonic trash can involve sound inserted in the wrong

place or sound inserted solely for the sake of filling space when what's really called for is silence. It's Nissan's weird digital doodle at the end of its ads that means precisely nothing and doesn't make humans feel anything but advertising. It's the aggressive score in the otherwise stunning 2013 movie *Gravity,* about a chaotic accident in space. The film is painstakingly accurate about the way things work in orbit, including the fact that you can't hear explosions or metal shredding or glass shattering. One of the effects of losing sound in a situation where people have come to expect it is that they look for visual answers to what's happening (next time you're at an ATM that doesn't beep, notice how much you lean in and pay attention to the screen). Instead of letting that disconcerting silence drive really violent scenes in *Gravity,* the filmmakers stuff the vacuum with strings and music meant to convey the emotions of Sandra Bullock's character. Scoring to her emotions might make sense in a regular film, but this is not a regular film. Just as you start to wrap your head around the physics of a pivotal scenes, the score rudely insists you pay attention to how it all makes Sandra Bullock feel.

We've all been yanked out of a story by a misplaced film sound or song. Think of Hammer rapping "Addams Groove" over the 1991 remake of *The Addams Family;* P. Diddy rhyming over Jimmy Page's "Kashmir" riff on "Come with Me" for 1998's *Godzilla* remake; Limp Bizkit rap-rocking "Take a Look Around" for 2000's *Mission: Impossible II.* These films shoehorn in pop icons with their own stories, which don't align with the stories the filmmakers are trying to tell.

You've also heard what it sounds like when marketers try to get away with a lie. In 1987, Nike and its ad firm Wieden+Kennedy featured the Beatles' "Revolution" in a sneaker ad. There might have been a time when Nike was an upstart rebel company, but that time was long gone by 1987. They paid $500,000 to license the song, but hard-core Beatles fans and the band's remaining members themselves were incensed. Through their record company, Apple, the surviving Beatles sued the shoemaker for $15 million. George Harrison said in a statement:

"Every Beatles song ever recorded is going to be advertising women's underwear and sausages. We've got to put a stop to it in order to set a precedent. Otherwise it's going to be a free-for-all."

The band and the brand later settled out of court — the terms were sealed. And Nike eventually stopped running the ads.

In plenty of other cases, brands latched onto a chorus or a hook of a song without considering the whole story it told. Many have gotten away with it. Their spots didn't offend anyone, even if they faded away without leaving a mark. Now, though, in an age where we're all more skeptical than ever and well aware of marketing, such misuse of sound can become infamous as sonic trash, as was the case with the use of a song for one particular brand campaign, which readers of the online magazine *Slate* named the greatest misuse of music in an ad.

Royal Caribbean Cruise Lines sought to highlight the more adventurous side of its family-friendly fun cruises in 2010. So the company, along with its ad agency Arnold Worldwide, used "Lust for Life," a song originally written by Iggy Pop with David Bowie. "We were using a portion of the song that musically and lyrically fit with what we were doing," Arnold's managing partners and group creative director Jay Williams told the *New York Times.* The goal was to attract more young people to the cruises. "The energy, enthusiasm and raw feel was right," Williams said. But if you recognize the song (it's Iggy's biggest hit, and was actually first released in 1977), you might know it as the opener of *Trainspotting,* a film about heroin-addicted Scots. If you dig deeper, you'll discover that the song's lyrics reference William S. Burroughs's gender-bending liquor-and-drugs-peddling stripper Johnny Yen. (His name's in the cruise-ship ads.) But to the best of anyone's knowledge, Johnny's never been the featured entertainer on the lido deck. And it's a safe bet Iggy Pop won't be doing the cruise circuit anytime soon. Bottom line: The music didn't match the story. And to suggest that a Royal Caribbean Cruise is like vacation heroin is, well, a lie. To be fair, Royal Caribbean's profits did surpass all expectations in 2010, but it also had just invested in shiny new ships.

Then there was Wrangler's use of Creedence Clearwater Revival's "Fortunate Son" in its campaign for jeans. The ad uses the first half of the opening verse, about folks being born to wave the flag. But gone is the second half: "And when the band plays 'Hail to the Chief,' / Ooh, they point the cannon at you, Lord." So a song protesting sending the poor off to slaughter became a patriotic celebration of denim.

Creedence singer John Fogerty doesn't own the rights to his music and didn't approve the ad. Explaining the intent of his lyrics in 2002, he told the *New York Times,* "I was protesting the fact that it seemed like the privileged children of the wealthy didn't have to serve in the Army. I don't get what the song has to do with pants." Craig Errington, director for advertising and special events for Wrangler, told the *Times* the song was "written and produced more as an anti-privilege anthem, as an ode to the common man. We sell millions and millions of jeans to those kinds of people and always have." So why lose the second part of the verse? (*Slate* readers also voted this one among the greatest misuses of music in ads.)

The point is that the right song can help drive home a true story. But the wrong song can make it fall apart. You'll tune out at best. At worst, you'll get angry.

Bad sound, not just bad music, can have this effect too. The voice of villain Bane in Christopher Nolan's 2012 film *The Dark Knight Rises* became a problem when audiences watching early film footage couldn't understand what the masked madman was saying. Instead of driving the experience, the sound demanded too much attention from viewers, who just wanted to kick back and feel the story. Bane's warble got in the way. The voice was cleaned up for the final film release, but not before parody videos depicting an inaudible Bane garnered hundreds of thousands of views on YouTube. Bad accents and hammy dialects can ruin a story. Kevin Costner does not sound like Robin Hood, and he doesn't fit the story we know and love. To understand how an ill-considered voice can torpedo even the most established epic tale, I offer these three words: Jar Jar Binks.

Sonic trash can remind you you're watching something fake. In

the 1953 cowboy movie *The Charge at Feather River,* Ralph Brooks, playing the character Private Wilhelm, gets struck with an arrow while riding on horseback. He lets out a scream you've surely heard, whether or not you've actually seen the film. The Wilhelm scream, as it's become known, was dubbed in by sound artists in two more places in the same movie. And it's subsequently appeared in 1954's *Them!,* the original *Star Wars, The Empire Strikes Back, Return of the Jedi, The Phantom Menace,* plus *Raiders of the Lost Ark, Indiana Jones and the Temple of Doom, Indiana Jones and the Last Crusade, Batman Returns, Reservoir Dogs, Aladdin, Toy Story,* and many more. What surely began as a Foley artist's joke has become sonic litter. Once you hear the Wilhelm scream, you won't be able to ignore it in dozens of films you love.

Sonic trash includes the really generic, bland, or cheesy music you may hear when you're on hold on the phone. When you're forced to wait to get a problem resolved and also have to hear Michael Bolton or Yanni, that's just adding insult to injury.

Sonic trash should not be mistaken for mere noise pollution. A jackhammer is noise, the necessary byproduct of a tool performing a powerful action (not that it's pleasant). But the car with a trunk full of speakers blasting as it rolls by your apartment? That's not a byproduct. It's a choice by the driver to try and broadcast his personality. To most recipients of the message, even if they like the music, it's sonic trash.

You've heard sonic trash on the street in the form of trite ringtones. In 2011, research firm Gartner reported ringtones were a $2.1 billion business. But at about the same time, consumer analytics group IBIS World predicted the business would dry up entirely by 2016. That's because novel ringtones are, for the most part, sonic trash. Music on a phone might have once been considered neat, but most ringtones fail to provide any kind of meaningful, instant information. Your phone might blast the Crazy Frog tune or Lil Wayne's "Lollipop" (one of the all-time most popular) and send a message to the

world about your personality and your tastes. But not forever. Pretty quickly, you'll realize that the song isn't helping anyone understand anything better (Lil Wayne's insurmountable swagger notwithstanding). In fact, the wrong ringtones might even create problems in certain situations — say, during a business presentation where you realize you forgot set your phone to vibrate when your hip pocket starts blaring "Baby Got Back."

Some sonic trash can be recycled. Deployed in a different setting for a different purpose, sounds that annoy or disrupt can be harnessed for boom moments.

The company Kids Be Gone markets a device invented in Wales called the Mosquito. It emits a shrill that's been compared to fingernails on a chalkboard or a buzzing mosquito near your ear — but it bothers you only if you're between the ages of thirteen and twenty-five. Humans don't have the ability to hear that frequency until they're teenagers. Then they lose it by their midtwenties. More than a thousand of the devices have been installed in the United States and Canada. Municipalities and private businesses have used the Mosquito to combat everything from loitering to vandalism — the presumption, of course, is that young people are the ones causing the problems. A Mosquito was installed on the grille of a school vehicle in Columbia, South Carolina, to keep kids from gathering in a parking lot after high-school sporting events, and the school district's emergency services manager said it helped defuse fights that would break out there. "Now there's no confrontation at all," Rick McGee told the Associated Press in 2008. "They just get aggravated and leave within a few minutes."

AVOID COMMON SONIC-BRANDING MISTAKES

Heed these principles of sonic branding, and you'll be well on your way to making sound and music a strategic part of your brand. But

be sure to avoid the common mistakes that often mire down brand managers who attempt to deploy sound without really understanding how it works.

Don't wait until the end of your creative process to begin considering sound. Include it right from the beginning, when it can inspire everyone and help build consensus on the right communication, emotional payoff, brand personality, or tone.

Sound and music are not only *tactics;* they're part of a *strategy.* Don't settle for unrelated music that fits each individual project. Instead, call back to the essence of your brand with every sound choice. Spending a ton on advertising is too costly a way to compensate for this mistake.

Don't base your music choices on your gut instinct alone. When you just add music that you like and that you think makes the ad better — with no strategy — you'll find yourself endlessly arguing with everyone in your company who has his or her own opinion about the music. There won't be a clear goal or agreement on the values the music is trying to convey. Lots of big brands make this mistake. They'd never develop a visual identity or a campaign or business plan without a strategy; why would they create a sonic identity without one?

Don't make the even bigger mistake of picking music because you think it makes you or your brand seem cool or relevant. If you choose a song because you like some of the lyrics and you don't pay attention to what the song is really about, your potential customers will spot the disconnect in a hot second. They might even tune out your brand forever. Likewise, don't attach an artist to your brand solely because you like the performer's audience. The message that artist puts out to those fans might not fit your brand's story. (Hey, Pepsi, how did that Ludacris thing work out for you?)

If you have something that works, leverage it. McDonald's, Intel, Expedia: outside of the last three seconds of their advertising, these brands are essentially silent. Apple has device sounds and has essentially created its own genre of music in advertising, but its stores,

sponsorships, and apps are all silent. These are huge missed opportunities. What if Apple developed the ideas and brought this sonic equity into its public spaces, its products, its sponsorships and employee-training programs? What if it used the elements in a fun way in social media? What if the company inspired artists or the general public to add to the conversation? It's losing out on immense potential brand value.

Don't waste time and money on thoughtless sonic research. The best way to bias your results and make them meaningless is to ask focus groups what they think of the music or the sound. Whether you're scoring films, ads, or products, the moment you take the sound that is normally *unconscious* and ask people to give you a *conscious* impression of what they heard, you can throw the results out. People will start talking about what they like or don't like, which is pointless. You should be focusing on the experience instead.

Avoiding these pitfalls and heeding the principles of effective sonic branding open the way to all kinds of sonic possibilities. When you learn about all you can achieve and exactly where you can go wrong, you can start to develop your unique sound — for your brand, your message, or yourself. In the hands of people and companies that have mastered these principles, sound becomes a fascinating tool for transformation. In the following chapters, I'll give you a behind-the-scenes view of what those sonic transformations look like.