SOUND UNBOUND

Sampling Digital Music and Culture

edited by Paul D. Miller aka DJ Spooky that Subliminal Kid

In Through the Out Door: Sampling and the Creative Act

Paul D. Miller aka DJ Spooky that Subliminal Kid

... free content fuels innovation ...

—Lawrence Lessig, *The Future of Ideas: The Fate of the Commons in a Connected World*

Silence is one of contemporary info culture's rarest commodities. In a world where there are several thousand satellites in the sky constantly beaming down at us information, cell phone relays, GPS signals, and weather patterns, even the idea of light pollution takes on a more than metaphorical value. We see the lights in the sky, but we don't hear the frequencies beaming through every nook and cranny of a world put in parentheses by human-made objects in the sky. It's a different sentence, to say the least, when nature and nurture blur to the extent that they have over the last century, and we've created a new syntax of human culture, as our inability to find another "intelligent species" in the universe attests—we speak only to ourselves, so far—we're alone in the universe. That's the current info-culture scenario. We speak to ourselves because that's what lonely people do sometimes. If the metaphor of architecture and frozen music evokes structure, then I need to update the phrase, give it a spin, and see what pops out of the centrifuge—after all, if there's one thing *Sound Unbound* is about, it's the remix—it's a sampling machine where any sound can be you, and all text is only a tenuous claim to the idea of individual creativity. It's a plagiarist's club for the famished souls of a geography of now-here. Get my drift?

Buildings in architecture are nothing more than correspondences between relationships—presence and absence, form and formlessness—and these ideas are extracted from diagrams drawn and configured within an information environment—people working, living, and breathing together to create a structure. I bet the twenty-first-century remix of the idea of architecture will be an FTP server. Archive fever becomes the Napster impulse for the attention-deficit generation. FTP—File Transfer Protocol. It's a simple triad of words, but a good one to start a book about sound and multimedia. Think of the idea of the archive (same root word as *architecture*), and think of structure as exchange. Is there any way to think outside of the networks of exchange that pervade our lives from every angle—from the sky, from the fiber optic cables embedded in the earth beneath our feet, from the texts that ask us at every turn—"Who are you? Where are you going?" Search the FTP server for files ending in .mp3, .wma, .ogg, .wav, .mov, .mpg, etc., and you will find nothing that would precipitate this question. After all, it's all just data. Map one metaphor onto the other, remix, and press play. The sampling machine can handle any sound, and any expression. You just have to find the right edit points in the sound envelope—it's that structure thing come back as downloadable shareware for the informationally perplexed.

The metaphor proceeds: There's a famous story about the artist Marcel Duchamp. No one knows if it's really true, but that's how stories work. Sometime over a period of years in the mid-twentieth century, he decided to stop painting, saying he stopped simply because he had started to just "fill things in...." This is what's going on now. When I talk about the crowded spaces of info-modernity—I'm talking about a world filled with noise, and if there's one thing we learned from the twentieth century, it's this: noise is just another form of information. Duchamp's unwillingness to just "fill things in" has other parallels—it reminds us of Rauschenberg's collaboration with de Kooning, *Erased de Kooning Drawing*, back in the mid-twentieth century, and it recalls a scene from David Boyle's "The Storming of the Accountants":[1] "it's like the 18th-century mathematical prodigy Jedediah Buxton, who, asked if he had enjoyed a performance of *Richard III*, could say only that the actors had spoken 12,445 words."

Stop. Think about it. Every sensation you have comes from one source: civilization. When you finish this paragraph, put down the book for a little while and look around you—check out your surroundings. What can you see, hear,

smell, taste, that does not originate in or is not mediated by civilized people? Crickets chirping on a *Sounds of the Environment* CD doesn't count.

This is all very, very, very strange. Stranger still—and extraordinarily revealing of the degree to which we've not only accepted this artificially imposed situation, but have actually turned the process into a "perceived" good—is the way we've made a fetish and religion (and science, for that matter, and business) of attempting to define ourselves as separate from—even in opposition to—the rest of nature. The "nature versus nurture" argument has been thrown out of the metaphorical window, and on a planet put in parentheses by human-made objects in the sky, the songs we hear are stories we tell ourselves. Civilization isolates all of us, ideologically and physically, from the source of all life—nature. We don't believe that trees have anything to say to us: not stars, not wolves, not cats, not even our dreams. We've been convinced that the world is silent save for civilized human beings and the information we generate. Once again, that echo of form and function, fact and fiction: It was the often eccentric nineteenth-century architect Louis Sullivan who admonished that "form should follow function." But what happens when you have a situation that, like the Goethe and Schelling adage that "architecture is nothing but frozen music," becomes reverse engineered, remixed into a different scenario—and we thaw the process. Music becomes liquid architecture. Sound becomes unbound. Shortly after September 11, 2001, NPR's *Lost and Found Sound*, a program run by independent radio producers, new media producers, artists, historians, and listeners across the country, began to collect and preserve "sound memories" of the World Trade Center, its neighborhood, and the events of that day. The Sonic Memorial Phone Line was set up for people to leave their stories, recordings, and audio artifacts, both personal and historic as a kind of invisible monument to their lost loved ones. Hundreds of people called with their testimonies and remembrances, music, and small shards of sounds that they felt represented the Towers' presence in their daily reality. Those stories were woven together into radio broadcasts on NPR, and this memorial is now an online archive that can be found at http://www.sonicmemorial.org/. Again—that echo of the FTP mindset—search the FTP server for files ending in .mp3, .wma, .ogg, .wav, .mov, .mpg, etc., and you'll find nothing that would precipitate this mourning, but that's the point. People had found new ways to express the grief of a mediated loss; the Towers were phantom limbs of a psychological landscape unprecedented in human

history. Form and function, fact and fiction, art and architecture—all woven into a testimony of human reconstruction in media. Think about this for a moment, and pause.

Another scenario: consider the mysterious case of Netochka Nezvanova, a Web-based software agent for the art/multimedia collective NATO. Basically, Netochka is a video-remixing software that posts to mailing lists and sends really bitter email to anybody who crosses "her." Think of her as an update to Walter Benjamin's "The Work of Art in the Age of Mechanical Reproduction"[2]—the remix is "persona in the age of mechanical reproduction" or even better—just plain "no one no where"—which is how the name "Nezvanova" translates. For someone who doesn't exist except as a series of angry emails that are posted on Nettime and on a couple of other listservs, Netochka Nezvanova has a really hardcore reputation. She's a computer programmer. She's a polemicist. She doesn't like it when someone "talks" back to her. She's a performance artist. She's an attack journalist, like David Brock on steroids—a hyperpolemical critic of capitalism and fascism, as well as a capitalist and a marketeer. She markets software. She doesn't exist. But a lot of people know about her and use her products. Her software Nato.0+55 (made obsolete by a lot of developments in the video "VJ" software scene) was once one of the mainstays of the digital video scene: anyone who was cool used Nato to process and create a lot of the weird images you'd see when you went to some wild party downtown—it was used to manipulate video for live performance and installations. But Netochka herself is a work of art—a "person" made of text—an online fiction many years running that's one of the Net's great word-of-mouth stories.

Netochka is the humanized "version" of a software toolkit. She's basically an extension of an editing environment that's used to sample and morph digital video in real time. Netochka knows the media scene—she does interviews and even haunts the lecture circuit. She even appears at digital art and technology conferences to promote the software—except, like Warhol did so many years ago, when she shows up in person, she's frequently represented by different women. No one really knows if there's a "real" Netochka.

She explains—sort of—via email sent to Salon.com a while ago (http://www.salon.com/tech/feature/2002/03/01/netochka/index.html): "NN's reputation is based on mouth 2 mouth adverti.cement. When something is very well konstruckted and designed with a degree of integrity it stands on its own.... All the cool girls wear NN."

Flip that same idea of "all the cool girls" into the remix scene and you get a mirror image of Nezvanova: Luther Blissett. Like Nezvanova, Blissett is a pusher of dematerialized merchandise—instead of software, "he" tells stories, and makes remixes of other people's music tracks online. In his own words, taken from http://www.altx.com/manifestos/blisset.html:

Luther Blissett is both the story-teller and the Mac Guffin of a board-game played on the stage of the world. It is essentially a grim theory of conspiracy which mostly makes use of techniques tested in the Mail Art (Ethe)real Network (MULTIPLE NAMES, "Add, Pass & Return" creations etc.) in order to manipulate and overturn the language of myths, the archetypes of the popular culture as well as the neo-pagan religious experience. It is a sort of lucid shamanism which does not belong to a pre-democratic and pre-individual view of the world (i.e. a claim to a totalitarian social unity); on the contrary it puts itself BEYOND democracy and the individuality, in the name of a free chaotic empathy between the creatures, as if we were charming Betazoids. Sometimes the links between the elements of the project happen to recall the most entangled detective stories (e.g. "The Long Goodbye" by Raymond Chandler or "White Jazz" by James Ellroy), or maybe "Paco Ignacio Taibo meets Paracelsus at an Illegal Rave."

This is the remix. Where Nezvanova is part and parcel of the mythology of the online software scene, Blissett is a process of osmosis—he takes what he can, flips it inside out, and then writes a manifesto about it. Think of him as the equivalent of DJ Kay Slay's mix tapes where Ja Rule, Eminem, Busta Rhymes, and 50 Cent battle it out over rhymes dispersed on mix tapes—that underground Samizdat scenario, and you get the idea. Triangulate between ghetto street stories, myths of people on the Web, the files that we use to process culture, and again—that echo—form and function, fact and fiction. The remix becomes "faction." Check the vibe at www.hotmixx.com.

Every software has a story. Every sound has an origin. I get asked what I think about sampling a lot, and I've always wanted to have a short term to describe the process. Stuff like "collective ownership," "systems of memory," and "database logics" never really seem to cut it on the lecture circuit, so I guess you can think of this introductory essay as a sound bite for the sonically perplexed. *Sound Unbound* is about volume—of content as sound bite, of attention with no definite deficit, of memory as a vast playhouse where any sound can be you. Press "play" and this anthology says "here goes":

Think. Search a moment in the everyday density of what's going on around you and look for blankness in the flow. Pull back from that thought and think of the exercise as a kind of mini-meditation on mediated life. Pause. Repeat. A word passes by to define the scenario. Your mind picks up on it, and places it

in context. Next thought, next scenario—the same process happens over and over again, it's an internal process that doesn't even need to leave the comfortable confines of your mind. A poem of yourself written in synaptic reverie, a chemical soup filled with electric pulses, it loops around and brings a lot of baggage with it. At heart, the process is an abstract machine that searches for the right place for the right codes. The information in your mind looks for structures that give it context. The word you have thought about is only a placeholder for a larger system. It's a neural map unfolding in syntaxes linked right into electrochemical processes—it's the perceptual architecture that makes up not only what you can think, but how you can think. Inside, we use our minds for so many different things that we can only guess at how complex the process of thinking is. Outside, it's a different scenario. Each human act, each human expression, has to be translated into some kind of information for other people to understand it—some call it the "mind–brain" interface, and others, like Descartes, call it a kind of perceptual (and perpetual) illusion. In our day and age, the basic idea of how we create content in our minds is so conditioned by media that we are in a position that no other culture has ever been in human history. Today, that interior world expresses itself in a way that in the "real" world can be changed. When it's recorded, adapted, remixed, and uploaded, expression becomes a stream unit of value in a fixed and remixed currency of the ever-shifting currents of the streams of information running through the networks we use to talk with one another. It wasn't for nothing that Marx said so long ago that "all that is solid melts into air"—perhaps he was anticipating the economy of ideas that drives the network systems we live and breathe in. In different eras, an invocation of a deity, a prayer, a mantra—these were common forms, shared through cultural affinities and affirmed by people who spoke the code, the language of the people sharing the story.

Today, it's that gap between the interior and exterior perceptual world that entire media philosophies have been written about, filmed, shot, uploaded, resequenced, spliced, and diced—and within the context of that interstitial place where thoughts can be media, whether they are familiar to you or not, the "kinds" of thoughts don't necessarily matter. In this world, there is no taxonomy of the imagination. It's the structure of the perceptions, and the texts and memories that are conditioned by the thought process that will echo and configure the way texts you're familiar with rise into prominence when you think. We live in an era where quotation and sampling operate on

such a deep level that the archaeology of what can be called "knowledge" floats in a murky realm between the real and unreal. Look at *The Matrix* as an updated version of Plato's cave, a parable piece in his *Republic* written more than two thousand years ago, but still resonant with the idea of living in a world of illusion. For that matter, look at the collaboration between standardization and the notion of rhythm. "Ratio," of course, being the root of "rationality," is the core angle on this scenario, and the longitudinal system—the global grid organizing experience in the world map—is a good metaphor for the way we systematize human experience. This excursion is meant to be a dialogue about different forms of sculpture—how physical objects "map" sound objects onto the kinds of metaphors we use to hold contemporary information culture together—think of it as hearing the sound of the world unfold in rhythm. The sound aspect of longitude was based on the Harrison clocks from the eighteenth century that King George III and British Parliament used to create the grid system that still guides navigation routes and configures our perception of "time zones" to this day. We have inherited the sounds of the H4 clock used by the British Admiralty in the eighteenth century to use as a global sculpture—a mix governing how we perceive the entire planet.

Longitude is an exercise in what I like to call "planetary dynamics"—it explores how we hold an artificial sense of time and space together with the socially constructed frames of reference we like to call the "nation-state." Imperial time aspires to be universal, and the grid system, and even rationality itself, is no exception. Back in the eighteenth century, when global travel by sea was coming into its own, hundreds of ships and thousands of mariners were being lost at sea or wrecked on shore because, once out of sight of land, they had no reliable way of telling where they were on the world's seemingly infinite oceans. In 1714, Parliament offered a £20,000 prize to anyone who could solve one of the greatest scientific problems of the day: how to measure longitude accurately at sea. While others looked for the answers in the stars in the sky, John Harrison, an eighteenth-century, self-educated Yorkshire carpenter, who had already built one of the most accurate clocks in the world, thought he could make a clock that would still be able to keep time on board a ship—something that many people pretty much thought "impossible"—like flying to the moon, or splicing the DNA of a jellyfish with a rabbit. The timepiece he imagined would allow sailors to chart their exact position and avoid further maritime tragedies—and create a new form

of navigation based on precise Mercator-style coordinates. The emergence of the "longitude" system is literally Harrison's story of how he struggled to perfect his idea in defiance of the physical challenges of the ocean and the more intellectual hurdles and challenges of the Board of Longitude, set up by Parliament to adjudicate the prize. Guess which was harder to deal with? People versus people. Ideas versus ideas. It didn't matter what the best idea was—but how many people believed it.

Harrison, convinced his idea would work, moved to London and set about building his first sea-clock. In 1727 he made a clock with a "gridiron" pendulum that was made of nine alternating steel and brass rods that eliminated effects of temperature changes on the clock's mechanisms. In the decades that followed, this internal mechanism was used to make four clocks each to rise to the challenge of the longitude problem. By 1762, at the end of a 147-day sea voyage, H4 had lost only 1 minute and 55 seconds—it was probably one of the most complex devices of its era—if not one of the most subtly influential.[3] It set the "tone" of time for the next several centuries. Mix the sound of its clock mechanisms with the sound of the U.S. cesium-particle-based "atomic" clocks that are used to standardize Internet time and all aspects of modernity onto one basic time system, and you have a massive social sculpture. Rhythm, after all, can be both visible and invisible, and this is the sound track to a different kind of "world order."[4]

Let's look at it this way: as the World Wide Web continues to expand, it's becoming increasingly difficult for users to obtain information efficiently. This has nothing to do with the volume of information out there in the world, or even who has access to it—it's a kind of search engine function that's in a crisis of meaning. The metaphor holds, the poem invokes the next line, word leads to thought and back again. Repeat. The scenario: internal becomes external becomes involution. The loop of perception is a relentless hall of mirrors in the mind. You can think of sampling as a story you are telling yourself—one made of the world as you hear it, and the theater of sounds that you invoke with those fragments is all one story made of many. Think of it as the act of memory moving from word to word as a remix: complex becomes multiplex becomes omniplex. In physicist David Bohm's book on this topic, *Thought as a System*,[5] the idea of progress is shown to be a convergence of these "visual cues" that hold the eye and hand together when we think. Multivalent and multicultural approaches to language, and all of the sundry variations it's going through right now, are what make this kind of

stuff so interesting. Or think of Antonin Artaud, who in 1938 invented the term "virtual reality" in his *The Theater and Its Double*[6] at the beginning of the section entitled "The Theater and Its Shadow"—where one era looked for theater, another looks for code in the era of information culture. Artaud asks—how has life become total theater? It all depends on how you hear the sound of science: like I always enjoy saying, "mimesis is the method of the mode." Artaud's question still hangs over us in the twenty-first century like some shroud made of invisible frequencies—a memorial for a dead era.

Another permutation, another sound file–flip mode excursion: In his 1938 essay "On the Fetish-Character in Music and the Regression of Listening," the theoretician Theodor Adorno bemoaned the fact that, like so many other performance-based arts, European classical music was becoming more and more of a recorded experience. He had already written an essay entitled "The Opera and the Long Playing Record" a couple of years before, and the "Fetish" essay was a continuation of the same theme. People were being exposed to music that they barely had time to remember because the huge volume of recordings and the small amount of time to absorb them presented to the protomodernist listener a kind of sound-bite mentality—one we in the era of the Web continue to be growing all too familiar with. He wrote: "the new listeners resemble the mechanics who are simultaneously specialized and capable of applying their special skills to unexpected places outside their skilled trades. But this despecialization only seems to help them out of the system."[7] When Tim Berners Lee wrote some of the original source code for the World Wide Web, it was little more than a professors' club—a place that entailed such exciting activities as giving briefs on atomic particle research at CERN in Switzerland condensed formats, or trading the latest developments on signal packet switching with DARPA project coordinators, or fielding queries on the latest developments in signal–noise reduction at Bell Labs— but it echoed that same sense of abbreviation that Adorno mentioned.

I tend to think of sampling and uploading files as the same thing, just different formats—to paraphrase John Cage, sound is just information in a different form. Think of DJ culture as a kind of archival impulse applied to a kind of hunter-gatherer milieu—textual poaching, becomes zero-paid, becomes no-logo, becomes brand X. It's that interface thing rising again, but this time around the mind–brain interface becomes an emergent system of large-scale economies of expression. As more and more people joined the Web, it took on a much more expanded role, and I look to this expansion as

a parallel with the coevolution of recorded media. Lexical space became cultural space. Search engines took on a greater and greater role as the Web expanded because people needed to be able to quickly access the vast amount of varying results that would be yielded—search engines look for what they've been told to look for, and then end up bringing back a lot of conflicting results. Metadata breaks down websites' contents in very easy-to-search-for "metatags" that flag the attention of the distant glances of the search engines—the process is essentially like a huge Rolodex whose tabs are blue and the paper they describe is hidden behind them. So too with sound.

I'm beginning this anthology on multimedia, sampling, and memory with a metaphor for search engines and the World Wide Web because I see the Web as a kind of legacy of the way that DJs look for information—it's a shareware world on the Web, and the migration of cultural values from one street to another is what this essay is about. Think of streets as routes of movement in a landscape made of routes and manifolds. The roads convey people and goods through a densely inhabited landscape held together by consensus. Like James Howard Kunstler said in his *The City in Mind*,[8] of the cities he loves to write about, it's "as broad as civilization itself." Look at the role of the search engine in Web culture as a new kind of thoroughfare, and that role is expanded a millionfold—the information and goods are out there, but you stay in one place. The architecture of where your information resides, in this geography of nowhere—in the relationships holding the structure together: Empty, as in the Buddhist sense of the mantra, repetition, and reinforcement of motif—code the text—in this scenario, empty can be really full.

An artist named Warren Sack created a "conversation map" a little while ago to track the way we map language onto spatial relationships[9] as a "system for summarizing and visualizing large volumes of e-mail." Two other artists, Ben Rubin and Mark Hansen, did a similar project entitled "Listening Post."[10] Their press release reads like a psychoanalytic update on contemporary culture, and could easily be condensed to be a sound-bite sample for this essay because, after all, I am writing about the art of appropriation:

Listening Post is a biorhythmic visual and sonic response to the content, magnitude, and immediacy of virtual communication. This collaborative multimedia installation is composed of a suspended grid of more than two hundred small electronic screens that display fragments of texts culled in real time from thousands of unrestricted Internet chat rooms, bulletin boards and other public forums. Dissociating the communication from its conventional on-screen presence, the project presents the texts

according to the frequency of randomly selected words, topics emerging and changing from hour to hour and day to day. A coordinated audio component alternates between musical passages and sections that vocalize certain messages, underscoring the text on the screens.

But it's not fun citing press releases, so we skip from metaphor to trope, from content to code and back again—and come to the conclusion that this is an associative context—we bring meaning to the search, and the sounds that we want to hear reflect back some of our encoded relationships. The information defining what you're looking for and the end result is a file somewhere, and the Web's search engines are the link between you and that end result. Because most search engines read format languages like HTML or SHTML, search results reflect formatting tags more than actual page content, which is expressed in natural language. Back in 1939 John Cage wrote one of the first compositions for phonographs. It was called "Imaginary Landscape No. 1" and essentially it was meant, in his own words, "to be subsequently broadcast or heard as a recording. It is in effect a piece of proto-musique concrete, though naturally, since at that date there was no tape, the instruments were records of constant and variable frequencies (then available chiefly for audio research)."[11] From the rotation of records made of frequencies, we get a metaphor for a wireless imagination, a Semantic Web describing a new type of hierarchy and standardization that will replace what had been in his era a web of compositions (reminiscent of Vannevar Bush's quest for the "memex" audio archive during World War II—the "Imaginary Landscape" was meant to be a kind of chance operation of memory and material). Cage wanted to replace his current "web of links" with a "web of meaning." Today, when we browse and search, we too invoke a series of chance operations, we use interfaces, icons, and text, as a flexible set of languages and tools. Our Semantic Web is a remix of all available information—display elements, metadata, services, images, and especially content—made accessible. The result, like Cage's piece intimated so long ago, is an immense repository of information accessible to a wide range of new applications—it's an archive of almost anything that has been recorded. The word "phonograph" has so many connotations—I always like to think of it as a collision of two words— phonetics and graphology. *Phono* plus *graph*—the sheer variety of styles and underground phenomenon are pretty much universes unto themselves. Edison, Sarnoff, Marconi, Garrett A. Morgan . . . Constellations of sound, memory, and expression are pretty much the core structures of this multiverse.

A good read is the equivalent of a good mix. Think of 'em as a kind of "amicus curiae brief" for the sonically perplexed—render judgment not on the singular track but on the mix as a whole. It's philosophy for the audio-splice generation—on a mix tape made by Burroughs VS Grand Master Flash etc.—anything goes. That's kind of the point.

The Ring Cycle. *La Mer*. Imaginary Landscapes. The art of noise. *Musique d'ameublement. Pli Selon Pli. Kraanerg. Gebrauchsmusik.* Names that are common in the contemporary classical music reconfigure into templates for a different kind of classic: Afrika Bambaata's "Death Mix," Grand Master Flash's "Adventures on the Wheels of Steel," Steinski and Double D's "The Lesson," DJ Q*bert's "Wave Twisters," and so on . . . This handbook for the Semantic Web covers, among other topics, software agents that can negotiate and collect information, markup languages that can tag many more types of information in a document, and knowledge systems that enable machines to read Web pages and determine their reliability. But it also fosters a sense of participation in what Heidegger called the "Age of the World Picture." The truly interdisciplinary Semantic Web combines aspects of artificial intelligence, markup languages, natural language processing, information retrieval, knowledge representation, intelligent agents, and databases. A good DJ has a lot of records and files and knows exactly where to filter the mix. They don't call the process online "collaborative filtering" for nothing—it's those loops again, coming back, like E. T. A. Hoffman and Sigmund Freud's Frankenstein and the Uncanny flipped with the original Mary Shelley scenario and updated, weblog style—trace it back to the origin, and you're left with an imaginary landscape. As George Clinton would put it, "you are one with the clones of Dr. Funkenstein." Check the remix. *Sound Unbound* is an anthology that gleefully says—"To hell with your divisions and name descriptions! This is what's going on!"

Think of the semantic webs that hold together contemporary info culture and the disconnect between how we speak, and the machines that process "culture speak" to one another in our efforts to have anything and everything represented and available to anyone everywhere. It's that archive fever that makes the info world go round, and as an artist you're only as good as your archive. It's that minimalist, and that simple. That's what makes it deeply complex. At the site of inside out, in through the portal into the here and now, out through the exit sign, there's always a discrepant engagement. Totally alive, wave patterns, cloud formations, vortices and eddies, and flows in the life patterns of the earth as seen from way above. It's all rhythms, all pat-

terns: the meteorology of the world we inhabit, syncopated fragments of geology, space and time, rendered into ripples of perception—like a place where everything—the sky, the sand, the clouds, the waves on the ocean's surface, the breath emanating from my body—everything—is alive and moving gracefully with everything else.

There's always a rhythm to the space between things. Pause, hold the thought, check the moment. Repeat. Wait. There it goes again. Another thought, another pause in the stream of conscious in another abstraction—the reader, the listener. Speak these words out loud, and the same logic applies—there's always a rhythm to the space between things. It's been a truism for a while, ever since Schelling and Goethe pronounced that "architecture is nothing but frozen music," that sound and the forms we inhabit are intimately intertwined. What happens when you reverse engineer the process, and think of sound as nothing but thawed architecture? The moment between sounds, the moment between thoughts and perceptions—it's one of those intangible structures that gives meaning to the things it separates, and that's what this collection is about. Blurring the lines between forms of thought echoes in the aftereffects of their actions and things generated by those thoughts, and well, in this day and age, that's something to give one—pause. Private discourse made public, public discourse becomes a new kind of sustenance in an ecosystem of hunter-gathers of moments suspended in a culture founded on a world where information moves only because someone invented and shared it. It's a milieu where a network is defined as a quote ending a quote: "and a system is defined as another quote of a quote." Music of floating signifiers—software as editing environment, dematerialization of the studio at a bit rate that can only accelerate. This is the end result: An incidental drift across definitions takes the place of any sense of fixed meaning—like slang, we look at sounds as a vernacular process. They're a syntax of the "what-if"—how will these sounds appear in this mix when we place them over another sound, in another file, in another program? Again and again, one of the main things I see people asking when I travel is—"what software do you use?"

Today's computer networks are built on software protocols that are fundamentally textual. Paradoxically, this linguistic medium of software isn't only nearly undecipherable to the layperson, but it has created radical, material transformations through these linguistic means—computers and networks as forces of globalization. "Translation Map," like "Listening Post," develops an approach to inhabit and visualize computer-based or computer-mediated

language as a space or material form. As Henri Lefebvre said so long ago in his 1974 classic *The Production of Space*: "the body's inventiveness needs no demonstration, for the body itself reveals it, and deploys it in space. Rhythms in all their multiplicity interpenetrate one another. In the body and around it, as on the surface of a body of water, rhythms are forever crossing and recrossing, superimposing themselves upon each other, always bound to space."[12]

An intangible sculpture that exists only in the virtual space between you and the information you perceive—it's all in continuous transformation, and to look for anything to stay the same really is to be caught in a time warp of another era, another place when things stood still and didn't change so much. But if there is one thing I hope this essay has pointed out it's been to move us to think as the objects move, to make us remember that we are warm-blooded mammals and that the cold information we generate is a product of our desires, and that it manifests some deep elements of our being. The point of all this? To remind us that, like Ellington and so many musicians said so long ago, "it don't mean a thing if it ain't got that swing." As the information age shifts into high gear, it would be wise to remember the cautionary tales of shades and shadows. To recall and remix the tale of a bored billionaire living in a dream world of Don DeLillo's, who said in his *Cosmopolis*: "It was shallow thinking to maintain that numbers and charts were the cold compression of unruly human energies, every sort of yearning and midnight sweat reduced to lucid units in the financial markets. In fact data itself was soulful and glowing, a dynamic aspect of the life process. This was the eloquence of alphabets and numeric systems, now fully realized in electronic form, in the zero-oneness of the world, the digital imperative that defined every breath of the planet's living billions. Here was the heave of the biosphere. Our bodies and oceans were here, knowable and whole."[13]

Sometimes, it's all that simple. Welcome to *Sound Unbound*.

Notes

1. *New Statesman*, January 21, 2002.

2. Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction," in *Illuminations*, trans. Harry Zohn (London: Fontana, 1992).

3. Notes and further information on the development of Harrison's clocks can be found on the CD *Standard Time*, a collaboration between Miklos Pinther, Chief

Cartographer of the United Nations, Julian Laverdiere, and Paul D. Miller—for more info and to hear the sound of the H4 clock go to: www.djspooky.com/art.html/.

4. A good discussion of the impact of Harrison's clocks can be found in Dava Sobel's *Longitude: The Story of a Lone Genius Who Solved the Greatest Scientific Problem of His Time*, Penguin Press, 1995.

5. David Bohm, *Thought as a System*, Routledge, 1994.

6. Antonin Artaud, *The Theater and Its Double*, Grove Press, 1958 (orig. published 1938).

7. In Theodor Adorno, *Essays on Music*, with notes and commentary by Richard Leppert, trans. Susan H. Gillespie, University of California Press, 311.

8. James Howard Kunstler, *The City in Mind*, The Free Press, 2001.

9. See www.translationmap.walkerart.org/ or www.sims.berkeley.edu/~sack/cm/.

10. See http://www.earstudio.com/projects/listeningPost.html/.

11. John Cage, ''The 25 Year Retrospective Concert of the Music of John Cage'' (liner notes to the album, 14 and 29, Wergo, LP, 6247-2).

12. Henri Lefebvre, *The Production of Space*, trans. Donald Nicholson Smith, Blackwell Publishing, 1974, 205.

13. Don DeLillo, *Cosmopolis*, Scribner, 2003, 25.