

EXHIBITION ESSAYS

Robot Music: A Brief History

Gabriel Fowler

The vocoder is a speech analyzer and synthesizer, originally developed as a speech coder for telecommunications applications in the 1930s. The vocoder can be used to encrypt secure radio communications, transforming the voice into incomprehensible digital information, which can be decoded on the other end of a low-bandwidth radio transmission. The vocoder has also been used extensively as an electronic musical instrument.

In 1970, electronic music pioneers Wendy Carlos and Robert Moog developed one of the first truly musical vocoders. A ten-band device inspired by the vocoder designs of Homer Dudley, it was originally called a spectrum encoder-decoder, and later referred to simply as a vocoder. The carrier signal came from the Moog modular synthesizer, and the modulator from a microphone input. The output of the ten-band vocoder was fairly intelligible, but relied on especially articulated speech.

Most people recognize vocoder-augmented speech as shorthand for robot communication. In fact, the vocoder has been widely used for robot speech in films and television since the 1950s, including classics like *Land of the Lost* and *Star Wars*. The device was relegated to novelty status in music for many decades but reached an expressive apex through Germany's Kraftwerk. Songs like "Trans-Europe Express," "The Robots," and "Numbers" came at a time when disco was ostensibly dead and the new hope for the genre lay in the European acts who had transformed New Wave from radio-friendly pop to synth-driven dance music. "Numbers" dominated the dance floor in post-*Star Wars* America with abstract automaton fantasies and a counting-as-a-second-language hook. Vocoder voice was a common feature in Kraftwerk's futuristic aesthetic, creating a bizarre sound that was both technology-obsessed and retro, both campy and sincere.

European dance records like Kraftwerk's were also becoming huge street hits for the burgeoning hip-hop community in New York City's boroughs. Afrika Bambaataa was listening to these records as the phenomenon of breakdancing was developing on the streets of Queens and The Bronx, and he set out to make a record specifically geared for this high-energy dancing style. Bambaataa's "Planet Rock" borrows heavily from previous club hits but is widely recognized as the record that claimed techno-pop for the streets. The robotic style of the music quickly influenced the breakdancing world, transforming the ephemeral sound of the vocoder into a bodily representation of robotic motion. After the immense success of "Planet Rock" and the proliferation of B-boy culture into the bedrooms of America, technology-conscious American dance music grew exponentially.

This essay was included in a booklet with other essays in the gallery during the run of the exhibition.

Thinkernic & The D.J.

Paul Lloyd Sargent

About ten years ago, I was sorting through some crap at a friend's house and I came across this yellow plastic cassette with a cartoon of a little blond kid in a tux jacket pointing a conductor's baton at the words "Little Thinker Tapes." It was apparently part of a series of kid's tapes in which this woman narrator, Nancy, would take listeners on visualization journeys through all kinds of worlds. In this one, she takes Thinkernic (I guess that's supposed to be us, the listeners) through "The World of Music" by visiting her friend Dapper Dan, a radio DJ. He sends her out over the airwaves to experience music in different places like New Orleans, where she introduces Thinkernic to Dixieland jazz, and then to Broadway, where she sneaks us into a show tune rehearsal. You know, stuff like that, always with some sort of borderline-offensive voiceover caricature of a jazz guy or hillbilly or German symphony conductor at each stop. Being a fan of odd audio adventures, it struck my curiosity, so I stole it, figuring it'd be a great backdrop for a mix tape someday. And that's exactly what I did with it.

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Between Dawn and Carl: Laps

Carl Warnick and Dawn Reed

We are inclined toward a socially contingent way of making art. Contingent describes what is possible but uncertain because of unforeseen or uncontrollable factors. This piece was produced in a progression of laps or sessions. Each of us worked on our own medley while listening to the other's mix. The shifts or sparks are what interests us; the unseen influences or points between produced in each mix because it was infected by the other person's choices. This has the fortunate difficulty of being impossible, since each mix would have to be finished before the other could be made. A figure eight of laps is a practical way of slipping past this paradox.

We enjoy when distinctions collapse.

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[Untitled]

Stacey Gengo

kick someone's ass
for new love and broken hearts everywhere.
the message is the music.

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Local Union Body

Jeff M. Ward

Compiling songs into a mix is one of the most handy and cogent productions of human imagination. Through the hands of the mix maker, homemade orchestrations of select songs simply encapsulate deeply held human emotions and intentions. Mixes can be the soundtrack to a car trip, the index of an idiosyncratic musical genre, or a romantic flush of courtship. While both the compact disc and the cassette tape are readily available consumer media for the making of mixes, tape possesses a physical life lacking in the compact disc. Older and slower, the magnetic tape is a superior vessel in communicating the complexities of the human soul. The physical makeup and operation, the metaphoric body and personality of the tape, suffuse it with a humanity lacking in the digital technology held up in the lifeless CD.

The shiny underbelly of the compact disc is blithely skipped across by a laser, never touching the inner workings of the stereo. Actual contact between magnetic tape and playback head makes a cassette speak. Rather than the cold digital sampling of voice and instrument captured on a CD, the mix tape embodies the full range of warm expression in the languid analog wave. Rather than the architecturally efficient stair steps that navigate the peaks and valleys of digital sound, the analog richness of the mix tape is a majestic mountainside and fecund fjord. CD burning is computer programming. You plug in the proper coordinates and it spits back out at you all the correct information in regimented precision. Making a mix tape is storytelling. It has to be done in real time. The recording head casts each note into the tape, realigning the distribution of precious metal flakes. A CD spins dizzily like a treadmill while a cassette unwinds like a ball of yarn. The tape takes an enriching journey, food digested through the well-coiled intestinal path inside a cassette body.

The tape can learn new noises much more easily than the CD. With the same equipment used to play a tape, you can record new sounds atop the old. Sometimes new recordings will not entirely mask old recordings, leaving a memory of sound. Using a four track, you can even orchestrate multiple layers of sound. Only particular CDs have more than one layer of recording, and they won't work at all if too defaced with scratches. Punching out the two little recording teeth of the mix tape renders it unable to be recorded over, but it only takes a bit of cellophane covering up its oral cavities to un-box its ears. Tapes are scrappy and world-weary. They adapt and grow. The life span of a magnetic tape is more richly hued, if allegedly shorter, than the shelf life of a compact disc.

Praise heaped upon CDs' durability is surpassed only by their much lauded mobility. A CD's mobile qualities are contained in its digital recording method; although slimmer, the size of a portable CD player is comparable to that of a portable tape player. The promise of digital technology then is that of no object at all. Digital song files can be emailed from computer to computer without the use of an intermediary transport. The mix CD implies that all the music on it may have been culled from the digital ether. The mix tape, however, suggests a litany of actual material that someone had to physically gather together. Behind each mix tape is a library of objects: discs, record albums, other tape recordings, and radio waves. The mix tape implies a skilled worker performing the subtle craft of hours of musical arrangement. The victorious feeling of obscure finds is absent in a Google-ing of digital anti-matter. The mutability of digital information renders the CD fairly worthless. The CD is a planned obsolescence. A digital track

can be held on a hand-held organizational tool, a wristband global positioning system, or a pocket-sized telecommunications center. Digital media's promise lays off the tape, making it stand on the unemployment line with its twentieth century flesh and blood cousins the switchboard operator, the answering service attendant, and the efficiency expert.

If the CD is the too fast and too disposable mindless automaton, then the tape is a unionized laborer. The CD is just a robot that repeats in theoretically crystal clarity exactly what it was programmed to say. Its chrome surfaces never weaken or tire. The tape is the clunky apparatus of the proletariat. Wheels and gears and belts run its manufacture of sound. It's Industrial Revolution-sized. It chugs along reaching sixty or ninety minutes with mandatory breaks between half-hour and three-quarter-hour intervals of effort. Push it to a one hundred and twenty minute overtime and it'll stretch, warp, and squeal. The tape can affect a workplace slowdown.

The tape has will. Each cassette begins only after a clear trailer that precedes the shiny brown-black, sound-producing labor. The transitions on a CD are seamless and smooth. A mix tape, however, can have jolting, popping pauses between songs. They'll backfire like a jalopy or ungracefully crescendo. The mix tape dictates its own length, while a CD permits a range of durations. The maker is not penalized for failing to fulfill the entirety of a disc's seven hundred megabytes; the CD will gently stop rotating and come to a halt half-way through its capacity. The mix tape, however, stubbornly refuses to heel. One could saddle a mere twenty-seven minutes of music on side A, and it will just clop along until it's done before trotting across the unattended B-side. Should a collection of heartfelt musical platitudes not fit into the tape's consciousness, it will violently truncate to its own attention span. Snap! The mix tape spurts, squeaks, and whines like a human. The CD can skip or the stereo can refuse to play it, but it cannot add anything to what it is saying. The mix tape, in comparison, hisses and whistles. Tapes talk. Tapes have a livelihood and character akin to an earlier age of objects.

The tape is quickly gaining the patina of nostalgia. Once ubiquitous, there are now only a handful of companies left that produce its components and even fewer manufacturers for those of its grandfather, the reel-to-reel tape. Mix tapes suggest halcyon days when a guild person's plucky craft was ennobled above sheer productivity. The mix tape embraces individual effort and embodies unique document. The mix tape's persnickety autonomy acknowledges a format of rational sequencing. CDs, MP3s and other digital music files dissolve these conventions, trading verifiable local color and accountable objecthood for celerity, promiscuity, and immortality. Before the CD's market dominance entirely relegates the tape to a rarefied museum space, we have at our fingertips an opportunity to exploit this medium's charms. Before it is completely set out to pasture, the tape is the warmest, fuzziest, most ornery, incorrigible, and supremely animal personification for the imagination, creativity, and humanity of the mix.

This essay was included in a booklet with other essays in the gallery during the run of the exhibition.

I Can't Keep Myself to Myself: A History of Women in Punk and Post-punk

Elijah Burgher

When I was fifteen, I bought the Bikini Kill and Huggy Bear split LP on a trip to NYC with my best friend on the occasion of his birthday. I didn't have a record player, but I had read about Riot Grrrl and Queercore, and my curiosity expressed itself as need. Like many other teenagers, my aimless desire for something else found an outlet in music, and in this chaotic, political, amateurish music in particular. A friend taped the record for me, and I hungrily listened to it repeatedly, trying to decode its strange messages. I felt that those messages, however alien, as if spoken in another language, were *for* me, and that they were, in some weird, paradoxical way, my own voice. I wanted to "Resist Psychic Death." I wanted to get "Into the Mission." That record gave me a lot of courage, and started me down various paths that I am following to this day: it gave me a feminist and queer-positive political framework to understand the world, and I began collecting punk records by women and bands in which women played a major role.

Researching women in punk and post-punk led me to a lot of really great music that I don't think I would have heard otherwise. Some of my favorites that are included on my contribution to "Mix Tape" that are slightly lesser known are Ut's ghostly, soulful no wave; Ludus's ironic and righteously angry faux-jazz pop; and the Poison Girls, whose leader, Vi Subversa, a mother in her 40s when she started the band in the late 70s, preached leftist gospel over anarcho-punk noise. There is a lot that is missing on the tape: Snatch, Legal Weapon, Girls at Our Best!, Neneh Cherry's work with Rip Rig + Panic, that I have not yet found or for which I lacked funds when I did find it. Neither Bikini Kill nor Huggy Bear are included because the time span of the tape is roughly 1976 to 1988, a pre-history of Riot Grrrl, in some respects, but these two bands are the beginning for me. The mix tape is titled "I Can't Keep Myself to Myself," after the Romeo Void song, because the spirit of this music is the messy, cathartic, pissed off, and joyous emergency of the human voice asserting itself.

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Cute in a Stupid-Ass Way

Greg Svitil

My personal mix tapes are ninety minute time capsules that memorialize different times in my life. I've had the same tapes for years—some have survived through years of use on a walkman, then subsequent years of being played on four different car tape decks. I can listen to a side of a tape and vividly remember which records I listened to most intensely in those days.

I still have every mix tape that anyone has ever made for me. The first was made in 1992. The most recent was made this year. There are many that I won't look at, let alone listen to, since they hit far too close to home for comfort, a remarkable contrast to the way that those same tapes made me feel when they were made. Such are the inevitable changes in life that time brings, I guess. Even if I never listen to those tapes again, I could never bring myself to get rid of them altogether. Because you never know what life will bring, and no bridge ever has to be burned permanently. There are other tapes that I listen to at least once every year, which make me feel good for the friendships that have lasted in one form or another. Those are very rare and special.

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[Untitled]

by Anthony Elms

But I was thinking... Mix tapes are about dead space aren't they? Whether you are putting one together, or listening to one that is made for you, dead space is the most prevalent feature. In making a mix tape, you are singling out cuts, usually from longer packages. You choose to present one song, and not the other. Something will work for the occasion—and assuming most records have at least seven selections—you've decided six or more cuts just aren't worth it. For the person receiving the mix, the elements of the record left off the mix tape are just dead space. Particularly if you are not familiar with the album from which the cuts comes, the selection is decontextualized. A vacuum package.

And in choices, the idea of the mix tape is to give the highlights, the just rights, or the must haves. So when selecting the playlist, you are desperately fighting against dead space. The mix must rock. Constant crescendo, or failing that, maintaining the vibe. No lulls, like all records must have.

As a receiver, no matter how talented the compiler, all records have dead space. Every single music product longer than a seven inch has a moment where your attention falters, the song you don't quite get. Mix tapes are probably the worst offenders, because you are dealing with an imperfect item, compiled by the compiler's memory, catalogue, concentration, not to even mention taste. Every mix tape I've received has something I don't like, or a sequence I think could have been better, some thing left off that was more appropriate. But that's why you get mix tapes, and listen to mix tapes, and make mix tapes, and record over mix tapes, and throw away mix tapes. To confront your relationship with, and tolerance for, dead space.

Needless to say, I think a big part of my tape is dead space.

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[Untitled]

Daniel Pineda/Total Gym

Mix tapes are often rare or one-of-a-kind cassettes, collections of previously recorded material dubbed to tape specifically for one person as a gift. These personalized tapes can be of a specific band, genre, era, or a thoughtful sequencing of a variety of music and sounds, creating connections between a wide range of recordings, sewn together like patchwork. With these cryptic collages, appropriated ideas, emotions, themes, musical, and aesthetic influences are communicated between persons.

To concentrate on a highly individualized form of a mix tape, I based my tape loosely on the theme of voices. Your voice being your sound you manipulate, to communicate. The tape is a collection of people sounds, places, and things I have previously recorded onto cassette tape, a mixture of my personal tapes as well as some new recordings that were conducted for this project.

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Sonic Reducer

Terence Hannum

I always have viewed the blank cassette as a *tabula rasa* with tight limitations. It has a definitive trajectory through time but cannot deny what is being placed upon it or how it is being changed to reflect what the consumer desires. With my tape I decided to go for quantity by comparing the devices of dissonance, atonality, repetition, and brevity at use in the Second Viennese School compositions by Schönberg and his students Webern and Berg, interlaced with similar devices at use in mid-1990s to current punk/powerviolence of such bands as Combatwoundedveteran, MK-Ultra, etc., more specifically focusing on the power of brevity, the effect of the “what was that?,” the question of a song, and the beauty of dissonance.

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This booklet was distributed in the gallery during the run of the exhibition.