

## **FUTUREPLEXITY: The Analog/Digital Architecture of Detroit Techno**

by Julian H. Scaff

In 1983, Tadao Kikumoto designed an electronic drum machine called the Roland TR-909. It was intended to produce realistic drum beats while at the same time being cost-effective, and was a part analog, part digital sample-based machine. The TR-909 failed to produce realistic drum beats and sounded very synthetic. Because of this synthetic quality, and the fact that the analog circuitry allowed the user to modify the pitch, attack, and delay of sounds, the TR-909 became the choice drum machine for many Detroit Techno artists. This machine encapsulates the nature of techno, a futuristic vision defined not by a total digitization of media but rather by a "multiplication of the media" as predicted by Umberto Eco. Techno remediates both analog and digital media, forming a recombinant pluriform architecture. Furthermore, this new pluriformity transforms the urban character of contemporary Detroit into a concept of urbanness that can be digitized, replicated, and dispersed. Techno mutates Detroit into a city of digital bits and analog waves untethered to the city's old geographical location. Detroitness can be replicated and experienced anywhere as streets are converted to synthgrooves, old factories to drumbeats, warehouses to reverbs.

### **Exponential Multiplication of the Media**

Umberto Eco declared that the various mass media are genealogical and yet they have no memory. They are genealogical because each new invention sets off a chain reaction of inventions. Every new medium produces more offspring. Yet they have no memory because in each new chain of inventions nobody can remember from where they came. Nobody remembers that the cinema came from photography on the one hand and vaudeville theater on the other. Each new medium consumes the old media, remediates it, erases it, and appears to be more authentic than the original. Although the multiplication has become exponential with digital media, it has also begun to form a memory again. Whereas cinema had no memory of photography or vaudeville, digital synthesizers do in a way have a memory for analog synthesizers, as the new digital devices attempt to recreate the sounds of Detroit Techno, which were originally created on analog devices. The Nord Lead, for instance, is a new breed of digital synthesizers with "virtual analog." The plethora of knobs and warm, dirty sounds of analog synthesizers have returned with silicon chips in the underbelly. The clean sterile digital sounds and the nasty wonky analog sounds live together in harmony. But whereas before the sounds of analog synthesizers were generated in the hardware, the analog-digital sounds of the Nord Lead are in the software. The architecture of

analog sound production has been liquified into a sonic version of what Marcos Novak terms "trans-architecture" (Novak, 1991). This allows Eco's concept of the multiplication of the media to become exponential. There's no longer any need to build new synthesizers...just upgrade the software.

### **The Pluriformity of Cyberpunk**

Cyberpunk originated as a genre with the writer William Gibson, and works such as *Neuromancer* represented a new hybrid between science fiction and urban noir. Gibson coined new terms such as "cyberspace" while simultaneously paying homage to Daschle Hammett. This pluriformity is evident in both the future world of *Neuromancer*, the present physical city of Detroit, and the hyperpresent city of Detroit Techno. These places have areas of wealth and high technology, as well as areas of urban decay, even urban abandonment in the form of deserted cities. It is as if the populations have retreated from the physical structures and into the software, like the old analog synthesizers. Indeed, Gibson's *Neuromancer* (and his other books) culminate in the blurring of the demarcations between the physical and the virtual, just as Detroit Techno often obfuscates the distinctions between the analog and the digital. Detroit Techno always existed more in the circuits, software, and airwaves than it did in the burnt-out warehouses and abandoned neighborhoods of the old city of Detroit.

### **Radio, Podcasting, and the Dispersed City**

The radio DJ "The Electrifying Mojo" played and promoted Detroit Techno on the airwaves, but is also credited with having influenced the genre through his highly eclectic playlists. Radio was the first architecture of Detroit Techno. Unlike the bricks and glass of physical architecture, radio waves pass through walls and form an architecture of waves that is decoded into sound through radio nodes. However, radio is still spatial, for it is tied to the broadcasting tower and affected by geography and weather. There is still a geometry for radio waves just as there is for physical buildings. William J. Mitchell observes that the internet, the second architecture of Detroit Techno, is antispacial (Mitchell, 1995). Like the emulation of analog sounds on digital synthesizers, the net seems to emulate a geometry, and like radio it is ambient, but unlike radio is not geographically specific. You don't have to go to Detroit to listen to a podcast (as you would to tune in to a radio broadcast), but rather you log in from any computer node connected to the internet.

Although we now see ourselves and our virtual communities through the plurality of analog and digital media, I do not suggest to impose a technological determinism. As David Jay Bolter and

Richard Grusin point out, technology and media do not determine our identities but rather serve "...as vehicles for defining both personal and cultural identity" (Bolter, Grusin, 1999). Radio and podcasting do not define techno, but rather serve as the vehicles for defining it's cultural and architectonic identity. Radio took the notion of Detroit Techno, as well as the notion of Detroit as an urban entity, and dispersed it via air waves. This was the first step in the liquifying of the architecture of detroit. The internet is the final and most devastating step. Detroit Techno may have originated in Detroit, but it is now a genre that exists in conceptual space, in cyberspace, in liquid space. The voices of robots, metallic clicks, and futuristic themes that help to define Detroit Techno convey an urbanness, a concept of Detroit as a post-industrial urban entity. As I download and listen to the Plastikman album *Closer* using iTunes, the sparse spatial soundscapes and heavily modified vocal tracks transport me to a concept of Detroit that is at once technological and futuristic as well as personal and psychological. Detroit Techno is at once analog and digital, broadcast and podcast, while Detroit becomes a dispersed city.

### **Recombinant Musitecture**

William J. Mitchell writes: "As our bodies morph into cyborgs, the buildings that house them are also transforming. Increasingly, telecommunication systems replace circulation systems, and the solvent of digital information decomposes traditional building types. One by one, the familiar forms vanish. Then the residue of recombinant fragments yields up mutants." (Mitchell, *City of Bits*, 1995). Detroit Techno is a mutant form, born between the ages of analog and digital synthesizers, in the early days of cyberpunk but before the birth of the modern internet. The DJ/producer Derrick May describes Detroit Techno as a mutant form: "George Clinton meeting Kraftwerk in an elevator" (Mixmag, 1997). The marriage of the analog and digital, of the city and software are not the only recombinations occurring. There is also the recombination of music and architecture, forming a new mutant urbanism. Goethe called architecture "frozen music," but with recombinant musitecture the buildings are thawed out. Time and structure flow freely together. Marcos Novak contends that "time permeates every architectural gesture, but in most cases, architecture's concern with time is passive." With the new mutant form the concern becomes active, as the movement of the music defines the urban space, and the urban space is transmitted, streamed, downloaded, dispersed, and multiplied. Architecture is mediated by music and it is media. It exists in pluriformity as digital and virtual analog, as geometric and virtually geometric space. As the old city of Detroit decays, it also rises again simultaneously in multiple locations and in no location, the city as recombinant musitecture.

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