BitStreams

Bending/breaking/building: the resonance of digital technologies in experimental sound

Debra Singer
Associate Curator of Contemporary Art

The inclusion of twenty-five sound artists in "BitStreams" acknowledges that digital technologies have revolutionized the creation, production, distribution, and performance of experimental music and sound art. Today's sound artists use computers, software, and other digital equipment as compositional tools, sound sources, and even as musical instruments. With these technologies, moreover, artists single-handedly create their own music labels to publish and market their work. Consequently, alternatives to commercially available music have proliferated in recent years and are reaching broader audiences. Focusing on such noncommercial productions, the works in this exhibition make use of sounds derived from nature, language, abstracted digital noise, traditional instruments, and prerecorded music. These experiments with sonic phenomena and new technologies signal a shift in aesthetic principles as well as a desire to explore the ways in which the digital age has affected perception, identity, and communication.

Digital capabilities have changed not only the modes and sites of production, but also the qualities of the work itself. The sources for musical compositions, for example, have exponentially increased, as almost any kind of nonaural information, such as light or visual images, can be translated into binary code and then transformed into sound. In addition, widely available software programs allow artists to break down existing sounds into smaller parts and reconstruct them in ways that drastically alter their original properties. Often such newly generated sounds are unrecognizable, having no physical corollary in the real world. Artists thus move beyond merely composing with sounds to composing the sounds themselves.

Many digital editing programs have furthermore given artists incredible flexibility in the layering and combination of sounds, facilitating the creation of nonlinear, non-narrative forms of both experimental and popular electronic music. In particular, such software has helped propagate collage aesthetic in which various sound fragments, or "samples," are brought together in unpredictable ways. These samples may be excerpts specifically created by the artist, but often include sections borrowed from pre-existent works that are then digitally manipulated to produce entirely new compositions.

This strategy of appropriation or quotation is part of a broader trajectory of twentieth-century musical history, wherein new forms of music have refuted linear progressions, rhythmic regularity, and melodic principles, favoring instead diverse sounds and mundane noises as legitimate compositional elements. When today's artists incorporate

the unexpected into their work-the sounds of surgical procedures, a bus' hydraulic system, or a glitch in a CD-they are following a tradition that dates back at least to 1913, when the Italian Futurist Luigi Russolo published "The Art of Noises," a manifesto calling for the inclusion of the noises of everyday life into music.

This notion spread further in the post-World War II era through two widely influential forces: the American composer and teacher John Cage, best known for the chance procedures and ordinary sounds he began to use in his compositions in the early 1940s, and the contemporaneous French movement musique concrète. A term coined by its inventor, Pierre Schaeffer, in 1948, musique concrète referred to music created by recording onto electronic tape "concrete" or "natural" sounds, whether those of piano notes or a train engine. These sounds were then treated as objects that could be "shaped" by subjecting the tapes to various manipulations, such as playing them backwards, altering their playback speed, or editing out and splicing different portions. Cagean principles and musique concrète have had an extraordinary impact on a broad spectrum of musicians and performers from the mid-century to the present day.

Much of the sound work in this exhibition, however, combines these avant-garde music influences with equally inventive ideas drawn from more p opular musical styles of the last several decades. This is most evident in the work of today's experimental DJs, who often perform original mixes on their laptops while simultaneously playing multiple turntables. Many of these artists are as likely to credit various techno, synth-pop, house, and hip-hop icons as they are Cage and musique concrète. Influential precursors from the late 1970s, for instance, range from Grandmaster Flash (arguably the most important of the early hip-hop DJs and known for his invented turntable techniques) to Kraftwerk (the German electronic music group whose records were popular in American discos). They testify to the diversity of club music that has had far-reaching effects on other forms of electronic sound work.

The club, disco, and "rave" have provided vital sites for digital music innovation, including many styles of music that extend beyond the danceable. In fact, much experimental work in clubs is not dance-based music but complex, beat-driven sound atmospheres often described as "ambient" or "illbient." "Ambient," a term first associated with the musician Brian Eno in the 1970s, initially referred to any music that attempted to create environments of sound. More recently, however, the term has come to mean pleasant-sounding mixes that use electronic music and found sound. By contrast, "illbient" denotes more rugged-sounding mixes that incorporate a wider variety of noises, especially urban street sounds, and are generated by interweaving incongruous musical elements. The unexpected results reflect the tensions and chaos of our technologically accelerating society.

Yet another developing genre related to "illbient" music's coarse characteristics is that of "glitchwerks," in which the basic compositional motif is the CD glitch, or skip. Glitchwerks are created using razor blades, chemicals, or Scotch tape to damage the surface of an already released CD. When played in the CD player, the ruined disc will change speed and place randomly. The piece is in effect "composed" while the CD is running and left to skip freely. The results are abrasive sonic blasts of manic scratches and screeches-noises of technology gone awry.

Many of the "BitStreams" sound artists move beyondaesthetic and formal concerns to address the problems created by the power of computers to gather, control, and manipulate information. One artist alludes to the tenuous state of individual privacy by using equipment to intercept cellular and cordless telephone conversations. Another humorously addresses shifts in language by appropriating the specialized terms, acronyms, and catchphrases invented by programmers. Others grapple with an ironic downside of technology: the same advancements that make communication easier, faster, and global can make forging human relationships more difficult. Still other artists blur the boundaries between the realand the unreal, as software enables them to make familiar sounds seem foreign and abstract sounds recognizable.

Through such reversals, artists expose some of the dilemmas engendered by technology: when the buzzing of bees resembles digital noise and the whir of a spinning disk seems organic, our traditional points of reference fail, and we are unable to distinguish the natural from the artificial. Thisconfusion is emblematic of a world in which digital information is never fixed and separating concrete reality from virtual fantasy is increasingly difficult. Embracing such conditions of uncertainty in their work, the sound artists in "BitStreams"ask us to consider new ways of listening to, and making sense of, the aural information around us and, by extension, our transitory world.