

GRANULAR SYNTHESIS

Tom Sherman

Granular Synthesis, the name adopted by artists Kurt Hentschlaeger and Ulf Langheinrich, is derived from granulated sound synthesis, an information processing technique for synthesizing digital audio. A series of very short samples (grains) are sequenced, reassembled to produce a granulated sound synthesis. Selected whole sounds (and/or images) are fragmented into tiny snippets (grains) and are also recombined to make whole new granulated sound or image continuums.

Hentschlaeger and Langheinrich apply and extend the primary technique of granular synthesis to transform the gestures and voices of human bodies, particularly human heads isolated by video from their bodies, into recombinant, alien screen-based creatures that move and express themselves through suprahuman performance. By breaking down video recordings of human models into split-second frames of video and sync-sound audio, and then reconstructing these models from these fragments, making them whole again (but giving them a new range of behavior that dislocates them from their pre-granular nature) we witness humans evolving into machines. In short, Granular Synthesis transforms people into machines.

We already know that we are becoming machines, for a cyborgian self-image is now available nearly everywhere. Cell phone antennae protrude from our heads. Computer screens pop out from our laps. Experiencing the work of Granular Synthesis is like watching the accelerated evolution of our species through time-lapse photography. It doesn't take very long to see where we are headed. There is real beauty in the horror, when that which is left behind, traditional humanness, is juxtaposed with the power of digital electronic gain.

Granular Synthesis first showed interest in fragmenting and recomposing moving pictures and sync sound in 1991, in a group exhibition at Kampnagel KX in Hamburg, Germany. Hentschlaeger and Langheinrich appropriated and remixed an underwater scene from the B-movie "Piranha" (1978), shuffling the shots and looping the remix. The cinematic logic of the scene (a victim is eaten by a school of piranha in extreme close-up) was reconfigured into a state of pure, suspended chaos and anxiety.

In 1992-93, Granular Synthesis began a series of performance works, each more progressively refined, like a series of computer software updates: "MODELL 3," 3.01, 3.02, "MODELL 4"... As this work progressed it became clear that the video and audio arrays of Granular Synthesis are a kind of software 'for programming' an audience, controlling the perception, experience and ultimately the descriptive processes (conscious reflection) of the audience. Granular Synthesis creates very precise scripts, new forms of strict time design, for its audiences to follow and internalize.

The bodies, or more correctly the body parts, on the video screens, are fragmented, then reconstructed in clusters of fragments, like 'time cells' of human appearance and performance, some no longer than a few video frames (1/13th of a second), but none much longer. We can normally only consciously differentiate between four to five frames of visual information per second, so much of the texture of this granulation is read

subliminally. The ear does much better in its conscious awareness of the texture of fragmentation and in determining the relative, perceptual bump and grind of passing 'time cells.' The viewer's ears often tell the viewer what his or her eyes are seeing.

Granular Synthesis's performances isolate and dislocate appearance and behavior from the cause and effect logic of cinema, television, video, music and our perceptual experience of 'full motion' life itself. Time-based technological media, film-video-music, are generally programmed to run parallel to and analogously alongside 'full motion' physical reality. While there is an extensive history of time alteration in film-video-music, the time-based arts--we've learned to read flashbacks, flashforwards, the instant replay and more and more variations of time/event compression and density Granular Synthesis's machine goes further and is designed to totally shatter the 'full motion' status quo.

Throughout the 1990's this creative research progressed through "MODELL5" and finally into "NoiseGate-M6," an incredibly intense and beautiful installation released in 1998. "NoiseGate" is an installation, not a performance work. As a comprehensive, totally immersive information environment, it offers an experience fixed in a specific, concrete space and is open-ended in terms of duration. Granular Synthesis has refined "NoiseGate" in multiple installations and versions over the past three years, while concurrently performing "POL," the latest performance work. Both "NoiseGate" and "POL" are more abstract, less literally figurative works than the work from the early and mid-1990's. Increasingly, Hentschlaeger and Langheinrich have shifted the focus of their 'software' from the manipulation of human models represented in their video to more directly targeting, pushing and perceptually challenging the audiences of their performances and installations.

With "NoiseGate" the Granular Synthesis machine is once again applied to the task of shattering the apparent reality of a human subject, but this version of the machine is vastly more powerful and the framing, confinement and isolation of this human subject is also far more precise and definitive due to the introduction of a new architecture of containment or imprisonment. A new factor of control, the idea of the cage, has been Added to their formula for measuring and studying the parameters of human behavior. We now witness an even greater isolation, magnification and amplification of the un-timed, denaturalized or denatured human model.

The initial analogy, engaged zoo life, pacified and specially illuminated for the guilt-free pleasure of our observation is replaced by a single human exhibiting a range of behavior in multiple phases. The dark recesses of this unusual human 'zoo' form a thick ambient noisecape which rumbles and recedes into the visitors' subconsciousness, remaining only as a sea of sonic pressure as the heads/faces 'speak' with their drifting, deliberate behavior sampled and reassembled with the characteristics of the system.

With "NoiseGate" we have entered a more abstract zone. The machine has generated a field of data comprised of multiplied, magnified, modulated, memorized human behavior. This field attracts and collects variously associated physical, psychological and social phenomena. This new machine display is an association generator: an instrument for the imagination.

"NoiseGate" invites us to navigate an environment where humanness is determined precisely, magnificently by a machine. We wonder how to interpret the data without the aid of additional instruments.

The encaged human behavior drifts in and out of phase, pulsating and cresting in waves of resonance in a system oscillating with a life of its own. People enjoy the experience of such elementary polyrhythmic movements when these movements are not forced upon them--when the surface of the ocean moves or when we see an animal's rib cage panting, or when the rhythm of sex fuses two bodies into one, or when the mantra comes together to invoke a sense of peace and well being. The life rhythms of "NoiseGate" are artificial and imposed and generate feelings of dislocation and neglect. Granular Synthesis has created an environment where the individual is left entirely to his or her own devices, abandoned in a state that is totally controlled. How would one survive in such a state? Lashing out in direct, immediate reactions to intolerable aggravation cannot be sustained. Eventually there will be disinterest and indifference--clear signs of resignation. More chronically, when the subject of such a state realizes that violent outbursts or even plaintive cries for attention have no effect, there will be a progressive withdrawal and decline and eventually total passivity. From restlessness to passivity, with occasional outbursts or spasms of aggression, eventually directed against oneself, the only object left...

"NoiseGate" then becomes a timeless space for reflection, for associations made against a backdrop of an unrecognizable drone. The human face of the machine looks out at the visitors and they see themselves in its blank expression. The vacant face holds tight. The face becomes the insistent logo of the disappearing human being.

We are left with an internal dialogue between organic-analogic and artificial-digital systems linked and mediated by our human senses. We stand nakedly human as an organic perceptual system confronted by a challenging post-human environment. Standing alone, immersed in "NoiseGate", we 'read' the literature of Hentschlaeger and Langheinrich to the best of our ability, a literature written by a machine with a human face, a literature comprised of immensely complicated terrains of remote-controlled behavior. With the gain, the amplification and expansion of human nature, there is loss. There is an increase in noise, a loss in the central clarity of being human.

This should not be viewed as a shortcoming of the system, for nothing essential ever happens in the absence of noise. Viewing noise as degenerative disorder is not useful when considering Granular Synthesis's work. There is no absolute structural difference between their signals and their noise. The recombination of small bits of reality without ever imposing a structural overview is merely an admission of an essential paradox. Whether we cast "NoiseGate-M6" in the light of our evolution from humans into machines or look carefully at how waves build, crest, fall apart, only to immediately begin forming again, there is one primary set of recurring ideas. In all gain there is loss...and in degeneration there is regeneration.

Tom Sherman is an artist and theorist based in Syracuse, New York, where he teaches media art and theory at Syracuse University.

