

This project was partly inspired by a need expressed by researchers at Georgia Tech for overcoming a subject's "gestalt" (willing suspension of disbelief) upon immersion into a virtual environment. Subjects being treated for acrophobia (fear of heights) have been facing their fears through VR simulations, but they are distracted by lack of realism. It seems plausible to use VR along with hypnotic suggestion to immerse the subject into a situation, so that the VR serves as a medium of communication and navigation between the conductor and the subject, thereby blending the internal experience with the simulation, rather than relying on technology to muscle out a complete reality. The visualization I have created, which I have dubbed "Gestalt Inhibition Sequence" to thwart academic skepticism, represents a proposed method of psychological immersion into virtual environments using audio-visual wave sequencing linked to biofeedback.

By combining the principles of Eriksonian psychology, biofeedback technology, digital conversion of algorithms into images and sound, and current VR technology, the promise of creating a consistent method of psychological immersion may be realized. Of primary consideration when pushing such a technology as VR is recognizing virtual environments not only as ultimate realities, but also as formation of a nonverbal language to serve as a more powerful avenue to accessing the infinite landscapes of the mind. Perhaps ultra realism in VR has a place similar to descriptive verbal communication (rhetoric). Taking advantage of VR as a means of communication and connection of information within one's own mind or among several individuals could happen sooner provided we have a reliable, quantifiable means of validating perception. Individuals communicating through a VR medium, having been psychologically immersed, could enjoy the efficiency of nonverbal communication, perhaps expressing thoughts on the fly through creative media or interactive behavior. The potential for creating universal abstract communication within a virtual environment could be more readily fulfilled, resulting in new levels of creative progress, provided the perception of individuals could be ascertained. The growth of digital technology is an obvious reflection of our need to overcome our limitations in accessing and connecting the knowledge we already possess. As a symbiotic relationship, we try to bestow life to machines. Therefore, the obvious next step in human-to-machine, human-to-human, or human-to-self interface is to establish a way of verifying what perceptual directory we are operating from.

Description of the Submitted Work

The animation sequence I have created, though recognized as a visualization of the proposed "Gestalt inhibition" concept, was created in a more manual fashion, rather than the suggested by-product of a biofeedback-driven algorithm. The animation is the culmination of many sources of inspiration and themes through which I am learning and growing personally. Some of the major themes include: waves; fractal behavior; connectivity; mutation and generational difference; ran-

dom, fluid, and non-linear movement; scale; resolution and recognition of emerging patterns; layers and transparency both of time and space; and vorticular time, or, focus, and the momentum and gathering energy. Most importantly, I was able to explore composition for proper transition.

The movement is comprised of many generations of sub-movements layered together, growing slowly, creating a tissue of flurried movement at first, gradually becoming more evidently in sync, and finally united as one movement in the final frame of the sequence. The gradual synchronicity is a constant rate that accelerates the movement overall and contributes to the perception of building energy, while the sub-movements build to a peak and then gradually subside, providing a less pronounced transition to counterbalance the accelerating synchronization.

The primary tools involved in creation of the sequence were Adobe Photoshop and Adobe After Effects on the Macintosh platform and Alias | Wavefront Power Animator on a Silicon Graphics workstation. Of particular technical interest to me was the use of solid projection for placing each frame of one animation onto animated geometry, which was performed manually one frame at a time for the entire length of the animation. The process of its creation, as well as QuickTime movies, may be viewed online: www.mindspring.com/~amcintire/gest.html

