**Mer Sonic Immuminations**

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**AN INTERACTIVE SOUND INSTALLATION**

This proposal is for the realization of a new interactive installation using sensors to locate fish and audience and feedback sound and light structures, MER SONIC ILLUMINATIONS. The image for this work is taken from a childhood experience of ice skating on a pond filled with swimming carp.

The primary goal of this installation is an aesthetic exploration and overlapping of eco-systems – timing, space, and motion. We are looking at the fragile life of fish, the ocean, and rivers, immersing the audience in that world and asking questions about the future of this world.

What you see in the installation is a long tank (6' x 15" x 15") with fish swimming along one side of the room illuminated by four color neon light. Illumination of the space is a double line of neon tubes that runs at water and eye level along the walls of the exhibition space. Space is lit and colored as light moves like fluid expanding and receding and transforming color within the tubes. Using ultrasonic sensors to locate audience /participants (as in CYMBOL), people shift light structures that illuminate their activity and they become important figures in this land, water, and sound scape.

What you hear in this work are quadraphonic sound events describing the space and activity of the fish swimming and the audience in motion. These sounds are constructed and activated using interactive computer programs and digital synthesis and processing. Surprising sound events will be contoured to be meditative and yet quite active- like sounds in nature. Harmonic signals will voice physical events. Audience presence and motion and fish timing and motion are sensed to transform the sound and visual structures.

This will be my first installation where visual structures can be shifted based on the sensed activity. Through collaboration with Kenny Greenberg over the last year we have refined and developed the radio frequency control of the neon lights. Using special transformers on long tubes we have been able to voltage control the light so that the illumination area can be expanded or contracted along the tube. Kenny Greenberg is able to mix gases within single tubes to shift the color of the light produced. Working with slow bits of voltage control we are first able to shift the color of a shape so that the images can flow like water over a large scale environment. Time and space can be proportioned and displayed to overlay and illuminate sensed activity. This is the first time in my work that parallel visual systems of information will be able to be displayed and transformed to enhance the live activity described in sound. In this work the sound will be digitally synthesized. This makes it possible to set up the equipment in less time and equipment takes up less space. The piece is more suited to travel than was possible with previous works because so many more installation details can be stored and recalled in the computers.

From our experiments with motion and response of the sound and light systems we have found that the open system can create surprising and dynamic images. We have been working in a very small lab situation and would hope now to realize this work in large scale environment and for audiences /participants. I also foresee the possibility of a site-specific version of this work on the river with fish-finders and tide sensors in the river. One set of neon lines and speakers would show the local activity while the other set showed the tank activity. This work is also possible with an outdoor display or through a glass window -inside and outside.