The Lily Pond
Jeremy Lutes, 3140 San Pablo Avenue, Oakland, CA 94608, U.S.A. E-mail: crijirical@speakeasy.net.
Received 5 December 2002.

The Lily Pond (Fig. 18 and Color Plate A No. 1) was prepared as an installation for Burning Man 2002 and, as with many creative works, it began life as something much different than what it eventually evolved into. Born of my desire to create a large-scale interactive environment, the Pond was originally conceived as a large array of electronic devices that would respond both visually and audibly to people passing near them. Function quickly gave way to form upon my realization that there was no reason these devices could not be sculptural as well as functional. Prior experience with botanical sculpture led me and my colleagues to the idea of each device becoming a plant; from there it was a short leap to the concept of the lily pond.

The Lily Pond came to consist of nearly 300 lily pads, mounted 22 inches above the ground and covering an area of roughly 3,500 square ft. Each pad is actually a green circuit board, fabricated in the shape of a lily pad and home to the various electronic circuits that give life to the Pond. The pads are arrayed in a hexagonal grid on 4-ft centers. This arrangement allows one to walk amongst the pads, experiencing the illusion that one is wading into a knee-deep pond.

The illusion of wading is greatly enhanced at night, when each lily pad projects a diffuse blue glow onto the ground beneath it. As one walks among the pads, they individually modulate their light levels, in effect simulating the movement of ripples on water. These ripples of light propagate out into the pond, where they collide and combine with other ripples.

Wanting to expand the concept beyond the basic idea of a pond full of interactive lily pads, we looked to the flora and fauna of a real pond. In the natural environment, objects of inspiration are plentiful; we found abundant material to draw from. We selected a few elements that interested us for inclusion in the first incarnation of the Pond.

Roughly two-dozen of the lily pads sport lotus blossoms made of lamp-worked glass and stainless steel. These flowers are lit from within and slowly fade on and off and change colors. Seven dragonflies, in the form of wire-frame sculptures, inhabit the Pond. The wings of the dragonflies are illuminated with fiber optics and are animated in a way that suggests rapid motion. The glass eyes of the dragonflies are also lit with a soft light that slowly fades on and off.

A pond would not be complete without fish, and The Lily Pond is home to several varieties. Five full-sized ceramic koi lurk beneath the surface, their eyes and barbles glowing gently in the night. There are four different schools of trout, also ceramic, as well as a dozen carp, made of kiln-cast glass. The trout and the carp are illuminated with miniature colored spotlights hidden beneath the lily pads.

The shore of the Pond is made of several large steel sculptures suggestive of the reeds, ferns and grass that accompany a real pond. These sturdy sculptures also serve as a buffer zone between the vast unknown exterior world and the quiet, contemplative space of the Pond.

Breathing life, motion and light into the Pond requires the collision of several different technologies. The light sources used to illuminate the ground are some of the latest generation of light-emitting diodes (LEDs), which are rapidly becoming the most efficient light sources available. In order to produce the rippling water effect, the lily pads “talk” to one another, using infrared technology similar to that found in television remote controls. The ripple effect itself is based upon a relatively new branch of science known as cellular automata. And finally, each lily pad contains its own power source that is recharged every day by a set of photovoltaic solar cells. Thus the entire Pond is wireless and self-sustaining, powered by the sun.

The Lily Pond represents a variety of techniques, technologies, materials and creative visions. Collaborators include the Sunbrothers (lotus blossoms and solar cells), Kathleen Fernald (ceramic fish), Michael Christian (shore sculpture), Lee Kobus (glass fish) and Jay Kravitz (glass fish).