



Photos by Guy Ben-Ary

Silence is golden: Phil Gamblen and Guy Ben-Ary

Michael John Gorman

On first encounter, “Silent Barrage” is anything but silent. The artwork consists of a forest of robotic poles that oscillate noisily and erratically as visitors explore the mechanical jungle. Cameras mounted on the poles monitor people’s movements, and, using motion-tracking technology, this information is fed back to electrodes that stimulate cultured neurons in a Petri dish hundreds to thousands of miles away. As a result, the installation creates a feedback loop between the exhibition visitors and the neurons.

Conceived by artists Phil Gamblen (shown at right) and Guy Ben-Ary from the Australian art-science lab SymbioticA in collaboration with Steve Potter, a neuroengineer at the Georgia Institute of Technology in Atlanta, the experience creates a ‘neuronal barrage’ that simulates an epileptic-like fit on the macroscale. Depending on the movement of visitors, the neurons can erupt with activity or be abruptly silenced. The traces of neuronal activity over time are inscribed on the poles, creating an externalized memory for the device.

By allowing us to inhabit a mechanized ‘brain’, Gamblen, 47, and Ben-Ary, 43, bring the micro-world of cultured neurons into the sphere of immediate experience. The work provides an intimate encounter with a semi-living being that we, the audience, control, and it motivates larger questions around the social and ethical implications of neuroengineering. In this way, “Silent Barrage” is a genuine fusion of art and science—by holding up a mirror to the visitor in the form of a jittering robotic brain, it provokes an uncomfortable sense of empathy.

Michael John Gorman is founding director of Science Gallery at Trinity College Dublin, where “Silent Barrage” will be on show early next year.

