Simon Penny

Simon Penny began working with electromechanical and audiovisual technology in the context of performance, installation, and sculpture in the 1970s and early 1980s, before the ready availability of personal computers. At that time he constructed large-scale indoor and outdoor works that were mechanically or electrically activated in response to either the viewer or something in the environment. His switch from electromechanical to electronic systems permitted him to apply the more sophisticated programming capabilities of digital technology to his work, increasing the possibilities of processing stimulus and response behavior in the ongoing relation between viewer and work. A work like his 1985 Shy TV (fig. 2) integrates sensor inputs with various outputs: the actions of a flashing sign, a small color television, and a motorized base were triggered from passive infrared sensors, thus allowing a range of behaviors to be stimulated.

Although intrigued by the potential of electronic technology to create complex relations between the viewer and the robotic object, Penny was also aware that the move from mechanical to digital had implications for the aesthetic dimension. The crux of this issue was that the formal properties of machines intimately linked the perception of them as objects (with all the modernist appreciation of machine aesthetics) to a visual comprehension of their functional logic. With electronic technology, much of the “working” of the piece occurred at a spatial and temporal scale apart from human perception. Thus, to build in any kind of interactivity, the electronic artwork must respond in a human time scale, yet the computational workings, hidden from the viewer, are functioning at minute scale and blinding speed. Faced with this dilemma—that the functionalist/formalist rules of modern aesthetics could not be realized within an electronically operated artwork—Penny began to seek a different aesthetic basis for structuring his work. In his current projects, he attempts to articulate an “aesthetics of behavior” through interactive robotic works, such as Petit Mal (1992–95; see Kac, fig. 10) in which a real-time response to visitor behavior is manipulated as an artistic variable.

The technological exigencies of Petit Mal aptly demonstrate the difficulties of trying to optimize the robot’s viability while working within the demanding constraints of its basic design needs. Petit Mal was designed to wander freely in an indoor environment for eight hours a day over a period of four to six weeks. (By contrast, research robots often survive only for periods between ten seconds and fifteen minutes.) Penny attempted to determine the absolute minimum requirements for mobility, stability, power, and sensory interactive capability: sensors for body heat, two wheels (each with its own motor), a relatively small-scale microprocessor, lead-acid batteries as both power source and counterweight, a self-stabilizing double-pendulum structure so that the robot can stop, lean forward, right itself, accelerate, and lean back in a manner that engages the viewer with at least a hint of the anthropomorphic identity essential to robots' social believability. Penny eschews the anthropomorphic clichés of form in favor of a more subtle attention to approximating social behavior, thereby attempting to reconcile the pedantic and logical nature of the machine with the nondeterministic perceptual behavior of human beings in a single, interactive work.

Jonathan Harris

Jonathan Harris is engaged with new technology primarily through his work as an educator, but he has also been producing series of works using digital manipulation of texts and images. The first series featured photographs...