tech

Hacking the Hydra

BY BEAN

THE INSPIRATION FOR A PERFORMANCE "instrument" can come from anywhere, including, it seems, the pages of mythology. For example, John Laraio appropriated the myth of the multiheaded Hydra to design an infrared triggering device for his one-man multimedia shows.
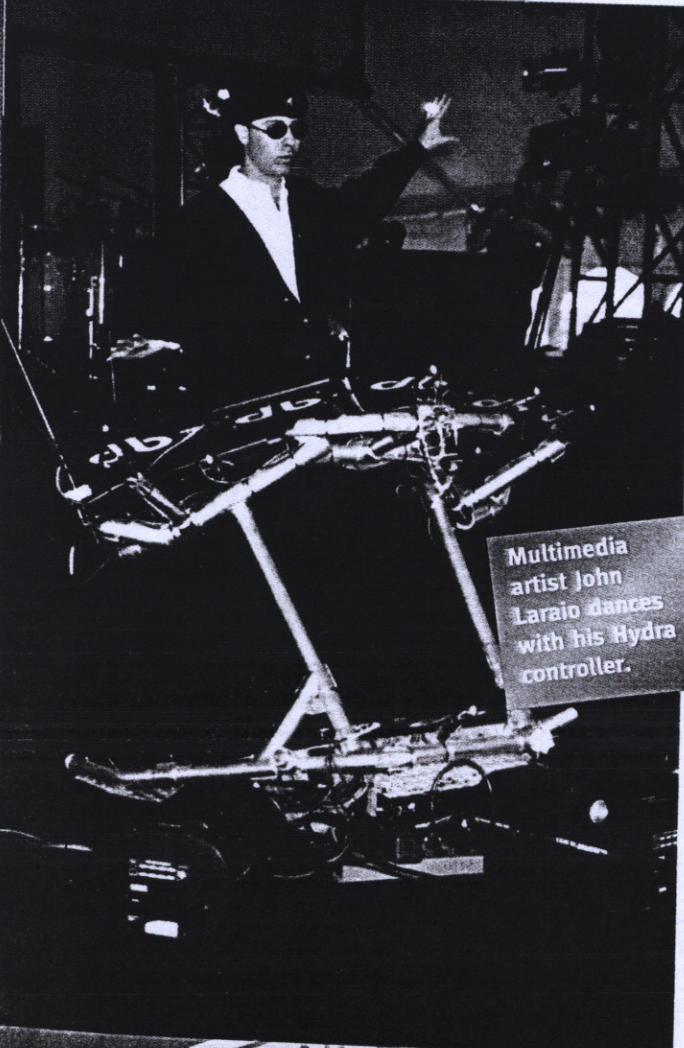
Laraio's Hydra employs fifteen Interactive Light Dimension Beams dangling from various heights on the beast's aluminum tentacles. (For a complete review of the Dimension Beam, see the July 1996 issue of *EM*.) The invisible beams generated by these infrared MIDI controllers allow Laraio—a software designer and former road warrior with supergroup Yes—to choreograph body motions that play a variety of visual images, loops, and samples.

Laraio helped to develop the Dimension Beam software, which can be programmed to send user-selectable MIDI Control Change messages. Aided by strips of reflective tape that can increase the Dimension Beam's range from approximately three feet to ten feet, Laraio's limbs trigger sounds from Kurzweil K2000, E-mu EIV, and Roland S-770 samplers. Emagic's *Logic* acts as a traffic cop that routes the MIDI messages between the Hydra and the sound modules, as well as providing sequenced tracks over which Laraio improvises. In addition, some signals are further processed by an Eventide DSP4000 Ultra-Harmonizer. Two Power Macintosh 8500s handle the Hydra's software chores.

Visual vamping. In conjunction with the audio experience, Laraio uses Steinberg-ArKaos' *X<>POSE* and Imaja's *Bliss Paint* to trigger real-time visual animations via MIDI. *X<>POSE* bills itself as the world's first visual sequencer whereas *Bliss Paint* is oriented more toward image synthesis using preexisting shapes, colors, and random patterns. *Bliss Paint* was designed to animate images in response to live music from an audio or MIDI input. Laraio uses *Bliss Paint*'s waveform algorithms to respond to MIDI Control Change messages. The resulting color mutations of hue, saturation, and brightness are highlights of the Hydra's audio-video interplay. In contrast, *X<>POSE* uses PICT files and QuickTime movies for its visual appeal. Once dragged onto the program's easy-to-configure mapping environment, images can be triggered from any MIDI controller or sequencer.

Myth or magic? With a wave of his hand around the Hydra's infrared beams, Laraio can improvise to his own sequenced compositions. However, he has been known to place Dimension Beam controllers over performance-space doorways (or on the ceiling) to let the audience interact with the music and images. If he wishes to bring the experience even closer to the crowd, Laraio can strap on a battery pack and a wireless MIDI transmitter from Aquila and step out into the audience for some real-time fun. Or should I say, myth-making? ◆

Multimedia artist John Laraio dances with his Hydra controller.

PHOTO BY MIYOKO COZINE