

tech

Jamming on an Interactive Stage

BEING ON THE CUTTING EDGE of technology doesn't have to mean joining the revolutionary insanity of the techno-elite. It does, however, require a sense of commitment to push yourself, your gear, and your crew beyond creative and technical conventions. Of course, you're reading **EM**, so you've already made the leap into the great beyond and are embracing

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the electronic frontier. But by pushing the envelope a bit further, you can add a whole new dimension to your music by infusing your stage act with other media. Whatever form it takes—multilayered slides à la Laurie Anderson, processed video, television walls, real-time computer graphics, or computer-generated puppet characters—multimedia elements can enhance your music with new depth and meaning. In addition, jamming in the inspirational space that is created by combining the audio and visual realms can energize your performance chops.

Real-time interactive dementia. In my band, the cyber-tribal world funk ensemble known as D'cÜCKOO, the impetus behind integrating participatory forms of technology in performance is the search for new ways to bring people together.

One of our initial endeavors was the interactive show toy, the D'cÜCKOO MIDIBall. The wireless, 5-foot sphere—which was designed by D'cÜCKOO's co-founder, Candice Pacheco—uses radio signals to trigger audio samples and real-time, 3-D computer graphics each time it is hit by the audience. The MIDIBall actually debuted at the Grateful Dead's Mardi Gras show at the Oakland Coliseum in February 1992. Customized samples for that show included brief sound bites of Jerry Garcia singing "Come Hear Uncle John's Band" and James Brown howling "Hit me." Eventually, the audience caught on that they were jamming visually and sonically with the band onstage via the MIDIBall. It wasn't long before the crowd was cheering and enthusiastically trying to dismantle the MIDIBall in search of Jerry G.

The enraptured throng at the 1994 Gavin San Francisco Convention in "jam" with D'cÜCKOO's marvelous MIDIBall.



Senator Twoface, a virtual cigar-puffing puppet, directly from the Disklavier. Designed by BIGTWIN (Web www.users.interport.net/~bigtwin), the senator's face responds to various intervals and chord changes and turns into Pig Newton on his backside. "It's fun to control him and figure out viable music at the same time," says Lanier.

To counterbalance the sinister senator, Lanier introduces Vernon Reid as Guitar Bugman. Presented live and onscreen via Sony projectors, Guitar Bugman's role is to overshadow the red-faced performance-animation character with his processed electric guitar riffs.

Inklings in infrared. Just to prove that there's still a bit of humor in cyberspace, Lanier plays a little "air" piano with the Interactive Light Dimension Beam. (The Dimension Beam was reviewed in the July 1996 **EM** and was further discussed in "Tech: Hacking the Hydra" in the November 1997 *JAM*. Visit Interactive Light online at www.interactivelight.com for more information.) Later, he turns the music off and conducts a visual symphony of geometric imagery using a Buchla Lightning II controller.

The Lightning II (reviewed in the August 1996 **EM**; Web www.buchla.com) uses infrared sensors to track two batons' movements and translates the positional information into MIDI messages (such as Pitch Bend, Volume, and Modulation) that Lanier uses to control both musical and visual interactions. With a potential range of motion as large as twelve feet high by twenty feet wide, the Lightning II provides plenty of room for gestural activity.

Drone morphology. Depending on Lanier's roster of special guests, a variety of instruments from all over the world weaves in and out of his orchestral web, including Persian- and Pygmy-inspired vocals, clarinet, balafon, guitar, violin, oboe, banjo, didgeridoo, and kora.

Lanier himself brings a veritable smorgasbord of instrumentation from around the world to the stage. With his affinity for wind and string instruments from Asia, Lanier might be found playing anything from a Ba Wu (a Chinese flute/reed instrument) to a Seljefloyte (Lapp Arctic flute). An East Indian drone might transport the listener off into a field of stars where floating letters morph with each pitch bend of a soprano sax.

If we stay tuned for more, Lanier (who can be reached at www.well.com/user/jaron) may turn into a cuttlefish, and then again, so could you. ◆