Science & Technology

Electrical Overload

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|
Summer 2006

In a SoHo gallery last May, Daniel Iglesias, a second-year graduate student in Columbia's music department, presented a video showing a horde of bicyclists in London and transposed what he called a "look-back matrix" of fractaled pixels over part of a screen. The video within the matrix was delayed up to four seconds, creating a kaleidoscope effect that was, if nothing else, cool.

Following the bikers, Iglesias presented another piece. This time, he used customized audio-editing software that "spliced, morphed, and reconstituted" various sounds, including Ornette Coleman's "Lonely Woman" and John Coltrane's "Giant Steps," to create a song he called "Lonely Steps." In a third and final project, Iglesias had programmed a computer to play snippets of songs from his iTunes library. The program simultaneously plugged file names of the songs into a Google image search and flashed the songs' album covers in a continuous and random montage. The computer had become both VJ and DJ.

Iglesias was "doing strange things with electricity," the motto of a group founded six years ago in Pupin Hall by Douglas Repetto, director of research at Columbia University's Computer Music Center. He called it dorkbot, a neologism combining the words dork and robot, which was coined by a friend. "I wanted a broad-minded, inclusive way to describe it," Repetto says. "I didn't want to say 'artists' because that's self-selecting, and I didn't want to say 'engineer' because people would just think, 'Oh, that's boys with toys or something.'" Repetto, who is gentle and down-to-earth, presented the group's first project, a software program he had been developing for Columbia that he called a "kids' interactive music thing" that would allow children to edit music and video. Within a few months of launching, geeks, artists, engineers, and curious onlookers came from across the city to share their strange electric projects.

The group met at Prentis Hall, the five-story former dairy on 125th Street, where an underground stream still runs through a metal trough into a drain in the basement. The building is full of remnants of large transformers, switches, and danger warning signs, reminders of the building's role in earlier high-voltage experiments with electricity, the Manhattan Project, the government's nuclear fission experiments begun in part at Columbia in 1939.

Dorkbot quickly outgrew its small space on the third floor of Prentis Hall and moved to Location One, a SoHo gallery. Iglesias performed his three works-in-progress at a meeting there in May. Following Iglesias was a group whose creation employed a low-tech use of electricity, and its contrast with Iglesias's presentation reflected dorkbot's mission of casting a wide geek net. In the spirit of dorkbot's relaxed vibe, Tali Hinkis and Kyle Lapidus brought their daughters, Rama, 4, and Dodo, 20 months, to help them demonstrate the Coat of Embrace, a homemade electronic device they described as a "sculptural modular analog audio/video synthesizer."

The Coat of Embrace is a hand-painted, oversized plastic lunch box with knobs, switches, and an abundance of colorful cables connected to a video projector. Standing before the audience of about 150 people, Lapidus, with his long black beard, explained the synthesizer's origins, while Hinkis nursed Dodo. Lapidus and Hinkis then strapped on the boxes as one would a guitar. They used the knobs and switches to project a pattern of colorful horizontal lines on a screen with a pink backdrop. The effect was psychedelic and, doubtless for some, sublime.

"Our music is harsh, but our work is tactile and romantic," Hinkis says.

Dorkbot communities have spread beyond New York City through word of mouth. Dorkbot "overlords," the name given to anyone who starts a dorkbot chapter, have spawned meetings in 60 cities, including Stockholm, Bogotá, Bucharest, and Cleveland. Repetto tries to attend as many as he can, and says that there are regional differences. The Bay Area is much more machine-oriented: "You know, big-things-shooting-fire kind of stuff," he says. Seattle has a small but active group of engineers, robotics experts, and hackers.

"London is fun because it has lots of kooky, mad-inventor types," Repetto says. "Like Granddad in the back shed inventing some strange device. There seems to be a lot more cultural support for crazed scientists there for some reason." Though dorkbot has since become an international phenomenon, Repetto would like to keep it true to its modest origins at Prentis Hall. "It's really important to me that it not

become the forum where ‘it’s your chance to present your ideas to the world,’” he says. “Instead, it’s like, if you’re doing some dumb thing, some hopeless thing with no future, this is exactly where I want you to show it.”

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