



# HARRIS WULFSON

**D**uring a performance by a crew of CalArts experimentalists going by the moniker of The Society of Automatic Music Notators, Harris Wulfson and his fellow collective members sit about 3 feet away from a tiny crowd. Both the performers and audience together take up only a tiny spec of the massive Warehouse-cum-Studio Space, the entrance of which doubles as a truck ramp.

Members of TSAMN play their various orchestral instruments, but instead of reading sheet music, they scrutinize laptop computer screens. Wulfson fiddles intently with his own laptop as he makes sure that musical information is being sent correctly over the network. This is Wulfson's intricately conceived foray into algorithmic composition and avant-garde performance, LiveScore.

A graduate of the California Institute of the Arts and current student at the City University of New York, Wulfson has spent a few years studying under "Silver Apples of the Moon" composer Morton Subotnick. At the performance, he collaborates on the other left-field pieces by his TSAMN cohorts; Mike Winter, James Orsher, G. Douglas Barrett, and Mark So. The show ends with Wulfson's piece. As LiveScore unfolds, it blurs the distinctions between improvisation and composition, audience and performer. Many of Wulfson's theoretical preoccupations are poured into LiveScore, beginning with an interest in computerized notation fostered at CalArts.

"A few of us who were all at CalArts started writing software to actually notate scores, to automate that process," says Wulfson. "What I realized was that it's so instantaneous, that you could conceive of a composition that is being notated as it's played. So I decided to explore that idea, and it tied into other things that I was

thinking about at the time." Spontaneous composition was only one of the concepts Wulfson incorporated into his program. After feedback/noise artist Toshimaru Nakamura spoke at CalArts, Wulfson grew fascinated with the idea of using knob-tweaking to shape a chaotic system into a meaningful pattern of sounds.

"[Nakamura] made a big splash with the talk that he gave. He played a bunch of his mixer feedback music, and it was fascinating," says Wulfson. "I didn't have any experience with synthesizers or feedback or, really, live electronic music. A colleague, Phil Stearns, got into playing mixer feedback and he demo'ed it for me and showed me how to do it, and it was incredibly fun. It's just wonderful to have this chaotic system and be able to explore it and arrive at unexpected sounds. It's very gratifying." Wulfson mapped Nakamura's method of performance onto his own compositional interests, and LiveScore was born.

LiveScore operates from a central computer which generates a musical score, randomly (at least within the parameters of the program's stochastic algorithm,) completely on the fly. The score is sent over a network to each performer's computer as it is notated, and the performers sight-read along as notes appear on the staves on their screens. A mixing board that controls various aspects of the algorithm is also employed during the performance. Wulfson invites the audience to manipulate the board's knobs, turning each audience member into a temporary DJ, who shifts characteristics of the live performance instead of squelching beats or tones. A strange sort of minimalist atonality results, fluctuating as audience members slowly stand up and man the mixer. Reconceptualizing the links between technology, performers, and audience, is a central part of LiveScore,

and of Wulfson's take on music. His future forays into composition, including a refigured version of LiveScore, might explore even more deeply the impact of networked communication on performance. "I'd like to experiment with having performers interact with each other using the same laptops that they're reading off of," says Wulfson, "that would be interesting."

Whether or not LiveScore's participatory element will democratize avant-garde performance, it's an engaging response to the problem of an alienated audience. Whether LiveScore constitutes an improvised piece is up in the air. The performers aren't quite improvising, they're sight-reading, but what they're reading is being generated near-randomly by a mechanized brain. There's no chance of phoning-in a lazy performance with LiveScore. It involves a degree of the seat-of-your-pants randomization of free improv while demanding that performers pay scrupulous attention to a written piece of music.

LiveScore is a nexus of far-out concepts, and its implications are never far from the mind of friends and fans. From a certain tongue-in-cheek sci-fi perspective, it's easy to see the program as a metaphor. Wulfson's program creates a milieu in which computers are in command. The question of who's really in control during LiveScore's performance is one he's considered, but not too dramatically. He doesn't see his brainchild growing up to be Alpha 60, HAL, or AM. "As far as whether the machine is controlling the performers or not, it is interesting but I don't see it as problematic at the moment," says Wulfson. "If I discovered in the future that artificially intelligent machines enslaved the human race, or something like that, and it was my fault, then I'd become a shoemaker. I'm definitely not in favor of that scenario."

**Matthew Stern**