

# Cyberspace concert

By HOLLIS WALKER  
The New Mexican



Morton Subotnick performs *Angel Concerto* from New York on Saturday.

History was made in Santa Fe Saturday in the form of a technological triumph that would have set even the visionary Alexander Graham Bell on his ear.

A group of the world's premier electronic musicians performed the first ever simultaneous teleconcert from three locations before audiences in those cities.

Eric Martin, director of computer research at California Institute of the Arts and an emcee of the program, called it "a new public event held in cyberspace," where "artist and audience share a common collaborative experience in space and time."

Sound confusing? Even some of the people involved can't entirely grasp the technology.

"If you understand it, congratulations," said David Brownlow, owner of Studio X, the experimental media company that served as Santa Fe's site for the teleconcert.

The teleconcert also was transmitted from The Electronic Café International in Santa Monica, Calif., and The Kitchen in New York, both multimedia telecommunications sites.

The event used phone lines to transmit videophone still photos and the musical and spoken audio signals generated at all three sites. Computer modems were used to transmit musical instrument digital interface (MIDI) signals. The musicians performed by triggering electronically produced music and images.

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During parts of the performance, they created music in one locale that was actually being played on an instrument at another location and simultaneously transmitted to all three sites. (Well, almost simultaneously. There was a quarter-second delay, but it was imperceptible.)

The 30 or so people gathered in the warehouse laboratory at Studio X watched the images on four television monitors and heard the voices of emcees, musicians and audience members in New York and Santa Monica as well as those transmitted from Studio X. They heard a duet played by a musician in New York — with his partner in Santa Monica.

In between and after the musical performances, audience members, musicians and "digimeisters" — the technicians who made it all happen — discussed both the technology and philosophy of this new kind of performance interaction.

The innovator behind the event was part-time Santa Fe resident Morton Subotnick, considered to be the father of

electronic music, and now co-director of composition at Cal Arts. Subotnick visited Studio X several months ago, came up with the idea for the teleconcert and got grants to create it, including the support of AT&T, said Brownlow.

Other participants, like Subotnick, also are heavyweights in the world of electronic arts: David Rosenboom, dean of the Cal Arts school of music; J.B. Floyd, chairman of the department of keyboard music at University of Miami; and Santa Fe resident Steina Vasulka, a founder of The Kitchen and violinist who creates multi-channel video-music presentations. (We're talking way beyond MTV here, folks.) Also performing was Wadada Leo Smith, a trumpeter who has written a new comprehensive music theory.

Subotnick, in New York, kicked off the concert by playing an excerpt from a media opera he is developing called *Angel Concerto*. Subotnick played the Disklavier grand piano — with the movement of his hands, arms and legs. The

videophone images of Subotnick showed him standing, his hands held before him as perhaps a conductor might gesture. The motions of his body triggered sensors that played a grand piano. The Santa Fe audience was enraptured.

Vasulka's piece was, predictably, the most exciting to the Santa Fe audience. She played a MIDI violin that sounds notes like an acoustic violin but also controls video laser disc images. Her piece, *Violin Power*, consisted of a series of moving video vignettes that played while she controlled both the sounds heard and images seen.

In one vignette, a youthful Vasulka played the acoustic violin in a '60s black-and-white film clip. Vasulka speeded up the image and the sound until the girl Vasulka was playing superhumanly; she altered the modulation of the music; she made the girl play in reverse — all the while making music. Vasulka watched the images she was altering on monitors as she was doing it, much as two musicians might watch each other while playing a duet.

The third piece, *Is Art Is*, was performed by Floyd in New York and Rosenboom in Santa Monica. It, too, used Yamaha's Disklavier technology. The images showed each man playing a piano — while the keys of an adjacent piano moved, as if

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Photos by Jonathan Downey/For The New Mexican

Violinist Steina Vasulka performs at Studio X Saturday while intern Gaeme Lowry and producer David Brownlow (far left) make video snapshots of the performance and send them to California and New York.

*Musicians and audiences in California, New York and Santa Fe collaborate with the help of computers and phone lines*

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# Angels Online

By Kyle Gann

Electronic Café  
Annie Gosfield

The Kitchen put its new Electronic Café to its most sophisticated test yet November 12. Instruments physically present in front of us were played via telephone lines by pianist David Rosenboom in Santa Monica and MIDI-violinist Steina Vasulka (one of the Kitchen's original founders) in Santa Fe. Morton Subotnick and J. B. Floyd in New York played a piano in Santa Monica by remote control, and Rosenboom computer-modified Leo Smith's trumpet from 3000 miles away. The performances were monitored more or less continuously by audiences in all three locations. Subotnick was quick to point out that playing our present music online is like playing Liszt's B minor Sonata on harpsichord. "There needs to be a new music," he added, "that demands the telephone lines." True enough; the technology leaped ahead of the music, but the music wasn't without interest. I felt a thrilling premonition of the 22nd century when Subotnick called out, "Play us a note, David," we saw Rosenboom on video screen strike a note on his piano in Santa Monica, and the piano at the Kitchen responded. If nothing else, the Café will save on airfares.

Subotnick's work was the most delightful I've heard him create since *The Key to Songs*. The conceit of his work-in-progress was that of a piano concerto played by

an angel. Subotnick ran MIDI pianos at the Kitchen and in Santa Monica by remote control, squeezing sensors in his hands. The pianos responded with melodies in multiple octaves and heavenly wisps of glissandos culminating in a romantic chorale, providing the Nancarrowian pleasure of music not playable by human fingers on the keyboard. Equally impressive was a wild (though structured) modal improv by Floyd at the Kitchen and Rosenboom in Santa Monica, both veteran computer composers with amazingly fluent keyboard techniques, even though their thickly layered style was too homogeneous to make much distinction between the pianos. It turns out that there's an approximate one-second delay in the signal between New York and California, making exact synchronization difficult (and providing a musical demonstration of Einstein's relativity: which audience gets to decide when cross-continental chords occur "at the same time"?). Ensemble performances via the Internet will have to be rhythmically rather loose.

There was more talk than music, with questions from all three audiences. Some worried about who'll have access to this technology once it's widespread. The Electronic Café's founders, Kit Galloway and Sherrie Rabinowitz, pooh-poohed such concerns onscreen from Santa Monica, claiming that the technology itself opens access to more and more people. I'm not so confident. For the moment the Internet, operating somewhere be-

tween the FCC and the First Amendment, is enjoying a fortuitous state of anarchy. But every advance in sophistication cuts out people who can't afford the necessary equipment or training. David Mamet likes to point out that anybody can hold up a piece of film and see what's on it, but you can't look at video or microfilm without access to machines. I'm already appalled at the financial commitment required simply to maintain my current level of computer use. Old equipment that fails can't be replaced, and new equipment invariably entails expensive upgrades in all related soft- and hardware. I know the inventor of a software program who is forced to add bells and whistles every year even though there are no meaningful improvements to be made; if she doesn't, her distributor will drop the product because they won't sell something they can't keep making people re-buy. The computer industry is greedy, and has us all by the balls.

I'm no Luddite. I can't wait till I can live in Santa Fe myself, watch New York concerts live on my living room screen, and modem in the review for you to read on your e-mail version of the *Voice*. But I don't believe for one second that this technology is going to be allowed to advance democratization, or that access won't ultimately be restricted to those with enough money and expertise. You're welcome to prove me wrong.

**Annie Gosfield's** October 28 concert at Roulette was brief, enigmatic, and interesting. In addition to her own music, she played works by her mentor P. W. Schreck, a kind of modernist, self-proclaimed ne'er-do-well, a real-



Wired strings: violinist Vasulka on the screen

life P. D. Q. Varèse. In the '40s and '50s he anticipated some of the ideas Fluxus would later try out, but "his idea of high concept," she said, "consisted of showing up at the gig and getting paid." Along with various jazz and film-score jobs, he was a night watchman at Steinway, and was fired one morning when management showed up and found that he and a drunken friend had retuned all the pianos and were busily playing away. His theories seemed entirely determined by exigencies of low-budget performance, including concepts such as "calamitonicity" and the "law of diminishing harmonic returns"; one work was scored for a piano that grew progressively out of tune. It was unclear how seriously to take all of this, but the music was pretty advanced for its period, with sound complexes suggesting

train engines, noisy musique concrète, and piano keys tuned to two pitches at once. Schreck's only tragedy was that he was a Downtowner born 20 years too early.

Gosfield's own music was impressive for its tunings and sampling. Her electronic keyboard used neither just intonation, quarter-tones, nor apparently any other systematic tuning, simply fascinatingly intuitive, out of tune "wolf" intervals. Her noise constructions, aided by Christine Bard on drums and Roger Kleier on guitar, put industrial noises through George Antheil-ish patterns with a jazzy flavor. And her sampling techniques, offering a plethora of complex metallic and percussive noises, resulted in the most kaleidoscopic and sophisticated keyboard-sampler performance I've ever heard

11/11/94

# Collaboration Gets a Whole New Meaning

■ **Music:** Teleconcert' will electronically link performers in Santa Monica, New York and New Mexico Saturday.

By JOSEF WOODARD  
SPECIAL TO THE TIMES

Long before the Internet became a household word to be feared and respected, multimedia artists and techno-pioneers were busy trying to connect the dots. In the past, such wide-eyed experimentalists have been the recipients of polite tolerance, if not outright sneers. No one is laughing anymore.

Interactive collaboration is the bottom line with Saturday night's "Teleconcert," a project of CalArts being presented locally at the Electronic Cafe International in Santa Monica at 7 p.m. Simultaneously, performers at the Kitchen, a New York performance space, and at Studio X in Santa Fe, N.M., will be linked electronically to create a real-time, tri-city concert.

The event's co-organizer, David Rosenboom, is dean of music at CalArts, and he spoke last week from his office on campus. Books, assorted electronic gadgetry and a grand piano were strewn about the large room, and he apologized for its cluttered appearance.

In part, the disarray can be explained by the Valencia-based school's upheaval in last January's earthquake, which necessitated moving operations elsewhere until just before the current school year began. Yet clutter appears also to be characteristic of Rosenboom, a gifted pianist as well as a composer, software creator and pedagogue with an eye on interactivity.



AL SEIB / Los Angeles Times

Morton Subotnick will perform part of his "Angel Concerto."

This project, Rosenboom asserted, is not really new, however advanced it may seem to more conventional music audiences. "Experiments with telecommunications in the arts go back a long way, at least into the '60s and beyond," he said, including the work of his pioneering CalArts colleague Morton Subotnick. "Now, the technology is beginning to make some of the dreams possible, but many of the dreams are very old."

The upcoming performance will be the most elaborate but hardly the first public display of the kind of work going on at CalArts' Center for Experiments in Art, Information and Technology, as well as at other institutions around the world. Several of these events have taken place at the Electronic Cafe, with electronic tentacles to

other sites.

This Saturday, Subotnick will perform part of his work-in-progress, "Angel Concerto." He will be stationed in Santa Monica, and the motions of his body, hooked up to sensors, will be transformed into signals that will then trigger an instrument in New York.

Rosenboom will be one element in a four-part loop in which his performance on a Yamaha Disklavier—a digitally controlled piano—will prompt the playing of another instrument in New York. There, pianist J.B. Floyd will also be sending back digital info that will, in turn, trigger music in Santa Monica. Rosenboom said, "I will use software I've created that will listen to the three of us playing and create responses. We'll build up to a more wild and rich musical experiment."

Trumpeter Leo Smith, another CalArts-based musician, will be in

New York, lending his improvisational input to the mix. In addition, computer graphic specialist Eric Martin, also a CalArts faculty member, will narrate the proceedings.

Rosenboom is not one to shy away from the constantly evolving state of technology available to musicians. He speculated that "certain kinds of artworks could just live out there in this space. That allows for the idea of collective participation and contribution to a work where the thing itself loses its particular attachment to an individual but yet becomes an organic thing that evolves.

"I think the arts are the most alive when we have a healthy experimental community and sphere of activity going on. I'm optimistic that we're entering a new era of experimental thinking."

■ *Electronic Cafe International, 1649 18th St., Santa Monica, Saturday at 7 p.m. (310) 828-8732. Free.*