

EDITED BY JON LEWIS

**THE END OF CINEMA
AS WE KNOW IT**

American Film in the Nineties



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Live Video

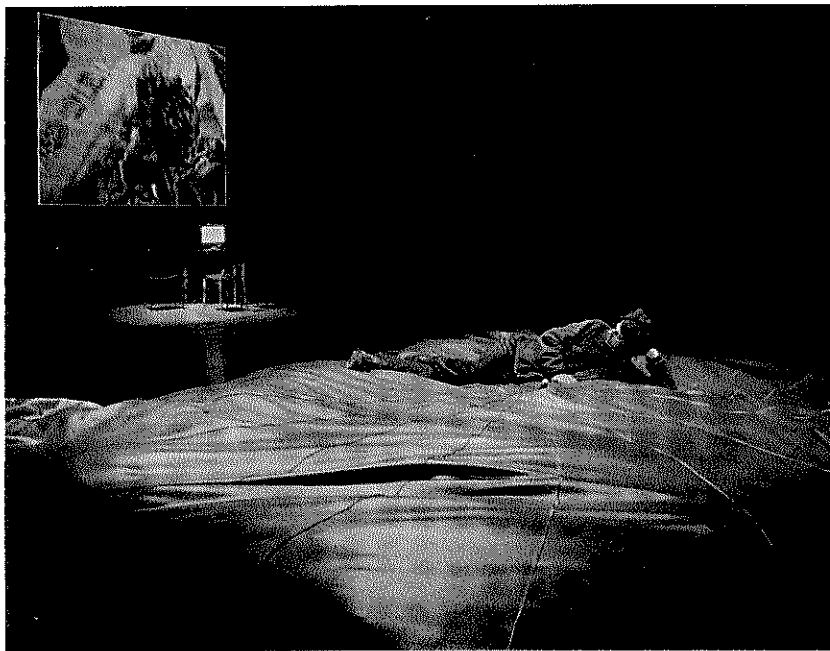
Laura U. Marks

YOU ARE IN a dim room in a Toronto gallery, lying on a sprawling beanbag chair that must be two meters long, gazing up at a screen. A strange little character, emitting wordless cries, stumbles across a sort of brightly colored postapocalyptic landscape. It must be a science fiction movie! But wait: every time the forms on screen shift, the music hums and twitters in sympathy: it's a melodrama!

The answer to what kind of movie you are watching lies in a studio in Brooklyn, where a collection of food wrappers, twine, labels, and styrofoam peanuts is blowing around on a huge round table. With no human present, computer-driven cameras switch among views of the trash, and simple software analyzes its movement to generate sounds that seem to correspond to the images. The same software, programmed by the invisible artists of this piece, edits in shot-reverse shot rhythms that seem to come straight out of a daytime soap opera. A live Internet feed streams the images and sounds to where you are lounging in Toronto, and it is you who are projecting characters, motivations, and genre styles on these innocent bits of refuse.

The piece, called the Appearance Machine, is the work of longtime collaborators Willy Le Maitre and Eric Rosenzweig, a.k.a. Screen. It is one of the exciting manifestations of a recent development in low-tech digital media, in which artists take advantage of commercial platforms, prosumer mixing boards, and developments in digital cinema to mix video live. Live video performances draw variously on DJ- and VJ-style mixing, free jazz, vaudeville, and avant-garde performance art.

Production has skyrocketed in recent months, as digital mixing equipment becomes more affordable and artist-programmers develop software. Among the numerous fascinating experiments in this



The Appearance Machine is streamed to the gallery where viewers recline on a huge beanbag pad and watch the live audio/video transmission projection (Appearance Machine, 2000).

burgeoning medium, the five artist teams I will look at in this essay are Screen (Le Maitre and Rosenzweig); Stackable Thumb (Naval Cassidy and Valued Cu\$tommer); the RK Corral (Kristin Lemberg, Rajendra Serber, Bulk Foodveyor, Cheryl Leonard, and Scott "Scooter" Wilson); Jennifer and Kevin McCoy (no alias); and Animal Charm (Rich Bott and Jim Fetterley). Their low-end extravaganzas make use of sampling, improvisation, homemade platforms, trash props, and the artists' own bodies to produce unique audiovisual "concerts." Image feeds are synthesized live and projected, or translated in real time into other sorts of information that affect the multisensory spectacle. Live video is an interesting intervention in the virtual or simulacral quality of digital cinema, for it can only exist live; live-to-tape video documents are just that. The "content" of these works is obsolescence and cultural detritus: they recycle cast-off images from commercial culture, as well as real trash.

Live video is an offshoot of the general resurgence of performance video. If you take a look at the output of M.F.A. programs in recent years, you'll see many works that look like they could have been produced in 1972, except for that giveaway digital shimmer: single-shot sight gags for camera; intimate, improvised performances; feedback experiments that take advantage of machine randomness. Paradoxically, now that digital cameras, editing, and effects are giving almost unlimited control to artists, it seems that many are choosing to give up their control and allow the live event, or the whims of the medium (whims that must be assiduously programmed back in to control-freak editing software), to determine the look and feel of their final project. While commercial and high-end art applications use digital technology to increase the filmmaker's control of the spectacle, live video uses computers to emphasize the role of chance. This is a hands-off aesthetic.

FIRST-WAVE LIVE VIDEO

Many live video artists consciously seek their roots in the analog experiments of the knob-twiddling early 1970s. Benton Bainbridge (Valued Cu\$tommer) of Stackable Thumb writes,

When I and my cohorts leaped into the live video thing as the '90s kicked off, we had the same conviction that cinema was a performable medium, but little knowledge of our predecessors. In the Postmodern '80s, the abstract qualities of the medium, a fundamental issue to wrestle with when trying to "play" video in concert with others, was not really up for discussion.

But when video was young, many artist-scientists ignored the event in front of the camera in favor of the loopy effects that could be achieved by manipulating the electronic signal. The Paik-Abe Synthesizer may be one of the best remembered, but artists speak fondly of (and still use) other analog synthesizers like the Jones Colorizer, the Rutt-Etra Video Synthesizer, and the Sandin Image Processor. The Experimental Television Center in Owego, New York is home to many of these "obsolete" computers, and video artists who have done residencies there take advantage of the equipment's rich and varied effects to make idiosyncratic and complex works. Peer Bode, a former director of the ETC, and

Andrew Deutsch now oversee analog-digital miscegenations at Alfred University's Institute of Electronic Arts.

Pioneer live video artists Carol Goss and William Wright, interviewed in 1998 by Bainbridge, describe their experiments in the early 1970s that share many concerns of contemporary live video. (The fascinating full text of the interview is on the Pulsating OKAY! Web site, www.p-o-k.com.) Goss describes the intuitive leap into the void that is live improvisation: "The sense of form of a piece was something that everybody was breathing together." They speak especially fondly of the Jones Colorizer, which mixed signals from four black and white Portapak cameras with separate red, blue, and green color controls.

It must be noted that analog synthesis is cumbersome—Goss and Wright admitted that it took "about 18 hours" to set up the equipment—and that these experiments with live generation and synthesis are harder to carry out with sound than image. Naval Cassidy (Jonathan Giles) of Stackable Thumb notes that, short of using turntables, he could not mix sound live without a digital audio sampler. "I would have to create all the sound on 1/4-inch reel to reel, and cut it and paste it by hand; not suited for fast-paced live work."

Like their analog predecessors, live video artists tip their hats not to film or video art but to improvised music. Eric Rosenzweig comes to live video from free improvised music. Jonathan Giles, although he has an experimental filmmaking background, is the music-generating half of Stackable Thumb. Cheryl E. Leonard (a.k.a. the Black Box) of the RK Corral, a composer, improvises acoustic and electronic music in a triple interaction with actors and video images. The McCoys perform with musicians, from the "art" side, like Pauline Oliveros, Steina Vasulka, and Peter Bode, as well as experimental electronica DJs like Soundlab, DJ Spooky, Nerve, and DJ Anna Lee (with whom they mixed at the New York Underground Film Festival). The basic principles that structure improvised music allow musicians to generate new sounds and rhythms in the freedom of the moment. Kevin McCoy writes similarly of the live video event: "a flow of images and/or sounds the sequence and structure of which emerge 'immanently' and instantly." Live video gives up tight control of image and sound editing and content in favor of the surprising relationships that result from chance encounters. As with improvised music, it's the responsibility of listeners or viewers to create meanings, if they want to, or to enjoy the image/sound flow and groove on how the artists handle their instruments.

AGAINST VIRTUALITY

By popular accounts, digitization is taking audiovisual media (at least for us in the wealthy countries) from the physical, substantial stages of movie theaters and television sets to the seemingly weightless, immaterial space of so-called virtuality. The myth of virtuality, the search for the seamless human-computer interface, is of course in the interests of global corporations. Microsoft, Adobe, Sony, et al. encourage computer users continually to upgrade hardware and software and rudely abandon us when instead we make do with obsolete platforms. Many makers of digital media fall into the upgrade trap. But the live video artists embrace an aesthetics of appropriate, rather than high, technology. By appropriate technology, I mean technology that's no more sophisticated than necessary to do the job: a twig for eating ants (if you're a primate), a bicycle for getting around the city (if you're a human), an obsolete Amiga for generating video effects live (if you're Stackable Thumb). Live video artists can thus be seen in light of the materialist politics that media theorist Sean Cubitt calls "digital aesthetics."¹

Cubitt believes that global corporations are infinitely capable of incorporating resistance, and that their conquest of everyday life is aided by digital technologies. If it can be digitized, it can be assimilated, is the essence of his argument. He calls for social alternatives grounded in the materiality of specific human-machine interfaces. Physical materiality—the analog side of digital life—is hard to assimilate.

Live video performances are chock-full of digital aesthetic values, because they do not try to hide their material construction, the social relationships that produced their technology, the economics of their low-tech platforms, and the quirkiness of their human-computer interfaces. Like all software, their applications are developed/pirated from military and commercial uses. Yet while the latter attempt to hide their technology behind a smoothly functioning interface, artists' live mixing platforms make the interface tangible, always reminding viewers of how the images and sounds are actually produced. Software is available for live image and sound mixing (for example, the Dutch company Steim develops software for electronic musicians and sponsors artists to experiment with its products: see www.steim.nl/products.html), but a number of artists cobble together their own homemade hardware-software platforms. Stackable Thumb's video is a combination of analog and low-end digital technology: security cameras, camcorders, VCRs,

and video switchers designed for wedding videography. They do not rely on digital video effects or any heavily processed computer imagery, and have largely shunned the more recent platforms and software. Bainbridge writes, "We like the old stuff, particularly Amigas [the extinct Commodore computer], because Amigas remain much more responsive and reliable than Macs and Wintel machines running 10–50 times faster!"

Other live video artists use homemade software to produce their own platforms. Homemade software is the digital equivalent to processing film in the bathtub instead of sending it to a lab: if you are willing to make do with a less seamless final product, you can bend the rules on how to create it. Jennifer and Kevin McCoy's video installations and performances produce a live mix of prerecorded and appropriated images with Kevin McCoy's program *Whirlygig*, a sampling and mixing program for the Mac. The software functions "like a giant flip book," allowing the mix artist to access a database of hundreds of frames. McCoy stresses the musical, rather than cinematic, basis of the platform: "*Whirlygig* is a tool for doing live mixes with musicians and DJs. I've tried to match the formal language of electronic, mix-based music with my software: scratching, sampling, layering, looping, speed control, etc."

The most sophisticated variant of homemade programming belongs to those interactive media artists who are developing or adapting translation platforms, which digitize information in order to convert it from one modality to another: to generate sound from image, for example, or images from words. One of the most popular is *The Very Nervous System* developed by Toronto artist David Rokeby to analyze video frames and convert light patterns into a database of information. The user can then translate that information into another modality. (For more on the VNS, see www.interlog.com/~drokeby.) In their ongoing project called *Fleabotics*, Le Maitre and Rosenzweig use the VNS to generate sound from the live-video image. Using Max MIDI-based live music software, they program sounds to respond to the image's rhythms and shifts in brightness.

SO HOW DOES LIVE VIDEO LOOK, SOUND, AND FEEL?

Le Maitre and Rosenzweig recently completed the newest iteration of *Fleabotics* in the *Appearance Machine*, the hands-off moviemaking en-

gine described above. This massive Lautréamont-like installation of video cameras, motors, discarded medical equipment, and trash produces video in a huge feedback loop so the artists need not intervene once it is set up. *Fleabotics* itself is a series of "nonintentional dramas" in which settings and characters are constituted entirely of trash-food wrappers, product packaging, and other refuse from the world of low-end commerce. The resulting movies are entrancing and can be experienced for hours.

The *Appearance Machine* is its own *metteur-en-scène* as well as its own editor. The artists use the *Very Nervous System* to convert the video images into instructions to fans, vibrators, and other motors that move the trash around to create a new setting. The image of a "character," a machine-generated spew of small bits of trash, is keyed into the "landscape" image at regular intervals. Scene changes are elicited by a feed from network television. Such cinematic conventions keep this work looking eerily like a real movie, but the crux of its movielikeness is atmospheric music worthy of Douglas Sirk. Visual rhythms and intensities generate audible rhythms and pitches that seem to be emitted by the objects themselves: they seem to squeal, hum, converse, and be accompanied by mood music and sound effects.

Yet it is all structured by chance. When I first saw *Fleabotics* I was sure it was a blurry version of a nature documentary on pollination I was seeing, and the artists tell of one performance in which a spectator, who had heard a detailed explanation of the random generation of the images, nevertheless remarked at the end, "It was very interesting, but why did you make the woman in the last scene Asian?"

In earlier versions, such as a show at the Kitchen in New York in 1999, the *Machine* was present in the same room as the images it produced, so viewers could see *Fleabotics* in both live and mediated versions. More recently, the artists have decided to heighten the mystery of the image source by stabling the *Appearance Machine* in a Brooklyn studio and streaming the images it produces in real time over the Internet. They are reembodied by a live feed to a faraway monitor—recently at the artist-run center InterAccess in Toronto and the Wexner Center in Ohio. Le Maitre and Rosenzweig kindly acknowledge the difference between virtual and physical space by letting viewers have an enormous beanbag pad to lounge on while they take in the work.

Jennifer and Kevin McCoy do VJ-style live mixes of prerecorded and plundered video. The musical format of their *Whirlygig* software

results in images that are painterly and abstract, their mass-media content almost obscured. Interestingly, their work for the Web is also live mix. Their Web site Airworld.net is stylishly ambiguous, like many of those mysterious e-commerce sites that give you no idea what they're actually selling. Airworld is programmed to search the Web on buzzwords and download images and text from corporate Web sites into their own, changing all company names to Airworld, so indeed it looks like you could join the Airworld company, invest in Airworld stock, fly Airworld airlines, and purchase Airworld hair products. In a recent performance, *Airworld Tonight*, they keyed their own newscasters over live feeds from Bloomberg financial news, with their own economic analysis, then resent the mix as a low-power pirate TV signal. While Web work is beyond the scope of this essay, the potential to mix live feeds and resend the processed information makes the Web a live video engine par excellence.

Animal Charm, the Chicago-based duo of Rich Bott and Jim Fetterley, makes "scratch" videos (again the term refers to DJ techniques) of the trashiest of trashy images. In performance, Animal Charm invites guests to bring tapes to "video kitchens," which they mix up on the spot: in Surrealist fashion, the emerging content is the unanticipated meetings between unknown objects. Many of their live-mixed works are also distributed as single-channel tapes. Their content includes QVC ads for jewelry and desk accessories, infomercials for easy-install tennis courts (*Family Court*) and insurance (*Preserve Your Estate*), an early-1980s TV documentary on a San Diego city administrator (*Mark Roth*). Animal Charm's uncanny works give new, zombie life to images meant to disappear in the amnesia of commercial culture: I think of these images as the kind that, beaming into space, will first give news of life on Earth to creatures on other planets.

The most exuberantly live of all live video works are those by Stackable Thumb. Their events are more like concerts, or as they say, vaudeville shows, than video projections. Perhaps this reflects these artists' relative analog bias. In performance, Valued Customer and Naval Cassidy perform manic actions, such as burning small objects or destroying them on a grinding machine. At the same time they use tiny Internet cameras to shoot close-ups of these actions, their own bodies, and a dizzying array of trash props. (Like Rosenzweig and Le Maitre, they jealously guard their garbage collection and bring it to each performance; this can create problems at international borders.) The perform-

ance is already quite heady even before images are projected, and even includes an olfactory dimension when they burn plastic or grind desiccated citrus fruit. The resulting images are synthesized and mixed live using the aforementioned low-end synthesizers and wedding video switchers. At the same time music is mixed and performed live using a digital audio sampler. Images are projected behind the performers, so the audience has the choice whether to watch the artists producing them (for example, with a camera millimeters away from a melting honey bear or inside someone's mouth) or to gaze at the bear's curvy pastel silhouette, mixed on-screen with an exercise video, while hearing a feedback loop of polkas.

Live video, as well as grafting performance onto image mediation, can be used to insert mediation into liveness. The use of video mixing to amplify the effect of live performance is probably most familiar from rock concerts and football games, where video projections offer close-ups of the distant performers. As Phillip Auslander argues, "liveness" is nigh on impossible in an age when the authentic, or at least originary, media artifact is the recorded one: for example, live concerts attempt to replicate the band's music videos with which audiences are familiar.² Hovering between live theater, dance, and video, the Los Angeles-based RK Corral creates elaborate productions that test the relative interest of two "live" performances, that of the physically present actor and that of the electronically mediated image. Their performance "Enie Macy" at San Francisco's Lab Theater in November 1999 interwove the stories of its hapless eponymous protagonist and other characters with, projected behind them, live-mixed images of the actors and animated tableaux. A roving videographer records the actors, sometimes obscuring them from the audience so we have no choice but to look at their on-screen images. In this work, the relationship between liveness and mediation is as much a narrative as a formal concern. By way of introduction, dancer Kristin Lemberg pauses to explain that since the "Big Deal," space and time have been fragmented into an infinite series of steady states; the tinsel-crowned "Future Boy" appears intermittently to explain why he is refraining from living in the present, effectively mediating himself: "Sex will be better in the future (what with the eradication of AIDS, genetic on/off switches to enable pregnancy, and genetically engineered orgasms). That is why I am not having sex now." Mixed with the performers' images on-screen are live shots of weird dollhouse-scale sets and fetishlike animatronic puppets, which offer a

kind of melodramatic complement to the action onstage. These are the products of Bulk Foodveyor (Philip R. Bonner), a former collaborator with Screen, who clearly shares their awareness of the anthropomorphic qualities of found objects. What I find to be the most interesting aspect of RK Corral's performances is the different reactions elicited by a performer's live body and his or her mediated image. The "Placid Couple" may be quarreling onstage, or Enie may be absorbedly twisting her skirt up around her waist, but it's just when the screen behind them affords a simultaneous close-up of outraged faces or neurotic gestures that the audience laughs.

All these live video teams critically recontextualize mass-cultural detritus, with approaches that vary from a "cool" machine aesthetic (Fleabotics) to a punk sensibility (Stackable Thumb, RK Corral) to a mocking/melancholy remix of trash corporate culture (McCoys and Animal Charm). Animal Charm remixes QVC in sharp comment on commodity culture; the McCoys poke fun at corporate jargon; Fleabotics and Stackable Thumb revel in the materiality of trash itself, re-creating it in a sort of digital Merzbau; RK Corral invites found objects to share the action with the goofball improvisations of real bodies, themselves found objects of a sort.

In live performance, live video's hardware and software reveal themselves as mutable and fragile. It thus invites participants to experience our own corporeality, by reminding us that we live in nonvirtual space. While the military and commercial applications from which they were developed attempt to conceal the platforms on which they were built, effectively making the interface opaque, artists' live mixing platforms make the interface physical and transparent. Live video explores society's refuse, prying into the cracks in virtual culture, in order to reveal its underlying material and economic structures. Yet these low-tech digital works also re-enchant the world and our material and transient love affair with it.

NOTES

My warm thanks to all the artists who are quoted in this essay from live and electronic interviews. Additional sources:

Airworld, <http://www.airworld.net>

Animal Charm, <http://www.animalcharm.com>

Appearance Machine, <http://appearancemachine.com/>

Jennifer and Kevin McCoy, <http://home.earthlink.net/~mccoy/>

RK Corral, <http://www.Rkcorral.com>

Screen, <http://www.interport.net/~er/>

Stackable Thumb, <http://www.stackable.com/>

Video Data Bank, distributor of Animal Charm, <http://www.vbd.com>

An earlier version of this essay appeared in *The Independent*, July 2000.

1. Sean Cubitt, *Digital Aesthetics* (London: Sage, 1998).

2. Phillip Auslander, "Is It Live or . . . ?" in *Liveness: Performance in a Mediatized Culture* (New York: Routledge, 1999), 23–38.