10. Video's Body, Analog and Digital

Video seems to have come of age as an art form[1] only at the time when technically it has been upstaged by the standards of the faster, more "interactive," and more virtual digital media. In this, video follows the time-honored pattern in which forms of aesthetic expression are valued most highly when they become obsolete or threatened. Video is dead; long live video!

It is easy to say that analog video had a body, insofar as it depended on the physical support of the cathode ray tube and electronic broadcasting. By contrast, given that it is common for critics to say that digital media exist only virtually, digital video seems to have given up its body. However, developments since the advent of digital video show that artists are taking the opportunity to reflect on the nature of the new medium. To gain a sympathy with the video medium as a perceiving and communicating body, I take a phenomenological understanding derived from the work of Vivian Sobchack.[2] How does analog video perceive the world and use its body to communicate? How do this perception and communication change in digital video? How do our own perceiving bodies respond to each medium?

Many digital video works seem to be in disavowal of the lost analog body and attempt melancholically to recuperate it. Others are exploring the structure of digital video in an attempt to isolate its own typical embodiedness. Digital video is asserting its particular embodiment through

a nostalgia for the analog; by reasserting early analog techniques; through a perverse celebration of the medium's unnaturalness; by exploring the digital medium's particular way of decaying; and through live mixing. Through their particular styles of embodiment, these works also reflect on the state of human bodies in analog and digital worlds.

I follow the common definition of an analog medium as one that creates an indexical representation of reality. As I argue in "How Electrons Remember," in this volume, the body of analog video is constituted from flows of electrons that maintain an indexical link with the physical world. For example, a certain wavelength of purple is captured by a corresponding configuration of electrons on tape. Thus analog video has a body that is analogous to the visual and electronic reality to which the video camera or videotape was exposed. It perceives the world and expresses its perception to viewers.

Traditionally, video artists explore the embodiment of analog video by interfering with the electronic signal: introducing feedback and other effects that disrupt the flow of electrons from transmitter to receiver, even selectively demagnetizing the tape itself. Our bodily relationship to the medium consists in "identifying" with the attenuation and transformation of the signal, the sense of passing of time and space during transmission, the dropout and decay that correspond to our bodily mortality. As analog video perceives and embodies the world, so we in turn share video's embodied perception.

A digital medium, by contrast, is one that translates reality into a series of 1s and 0s. While the basic matter of analog video is color and sound waves, hard-core structuralists will conclude that digital video's structuring principle is the vast database of *information*: of frames, pixels, or 1s and 0s (choose your unit). More generally, Lev Manovich argues that the database is the symbolic form of the computer age, which has its own poetics, aesthetics, and ethics.[3] In digital video the wavelength of that purple mentioned above is approximated as a string of 1s and 0s. What makes digital editing and storage so attractive is that image and sound are rendered as information, easily manipulated. One of the key sites of digital video's nostalgia for analog video's relatively innocent perceptual relationship can be described in C. S. Peirce's terms as a longing for Firstness. Firstness takes place in that microsecond when something appears to perception, but before it has been distinguished from other phenomena (Secondness) and related to symbols and other general rules (Thirdness). By being analogues of the things they perceive, analog media retain that sense of dumb wonderment in the face of the world.

Digital media, by definition, render all they perceive in terms of Thirdness. Yet since the purpose of computers is to carry out tasks that are too boring or cumbersome for humans, tasks that are specifically cognitive, it doesn't necessarily follow that because the digital medium experiences all its objects symbolically (as 1s and 0s), so too must the human viewer. The sense that digital media are hypermediated, that they are thinking very hard and very consciously, arrives more from the human-made programs that encode their thoughts. A work edited on a platform like Avid XPress or Adobe Premiere often seems more cogitated than works edited linearly. Especially if the editor is new to the digital medium, special effects often overwhelm the immediacy of the images and sounds themselves. So the Firstness of contact with the world that is afforded by analog video is diminished.

A new Firstness emerges, however, that is a function not of the intrinsic relationship to the external world but of qualities immanent to the digital medium. Central among these qualities is the medium's tendency to deactualize. Digital video's virtuality is always hovering at the limen of its audiovisual manifestation. When we see and hear a digital work, we are witnesses to the artist's *decision* to render this information in a form more or less like that from which it derived. The range of choice possible in digital rendering, the number of ways the database can be made manifest, is vast. Rather than generating an analog-looking audiovisual image, one could choose to use simple software that generates sound from visual information; or convert sound information to instructions to motors; or indeed stream that information over the Internet to be reconstituted at the end, one hopes but never knows, into visual and sound images. These conversions are achievable through a number of hardware-software platforms, including David Rokeby's The Very Nervous System.[4] The existential connection with the physical world is therefore quite attenuated in digital video. Digital video art explores the medium's embodiedness by playing not with the signal, but with a discrete set of information.

In principle, digital video, by "knowing" everything that it holds in memory, offers a weaker link to the phenomenal world it records. In practice, since both media retain so much more than we human perceivers grasp, each is capable of acting as our surrogate audiovisual preconscious. Digital phenomena also have properties that mimic our bodies' exceptional abilities. Synesthesia, for example, our own bodily way of translating information among modalities, is a kind of embodied thinking that can be accomplished by a translation program acting on a database. "Whenever I hear the name Francis I taste baked beans";[5] and whenever

The Very Nervous System detects light it operates fans (if that's what it's been programmed to do).

One of the most striking differences between analog and digital video is in the editing. Analog editing, also called linear editing, enforces that images be positioned sequentially according to a carefully preconceived script, so that the result is additive, 1 plus 1 plus 1. Digital editing allows the editor to return to any point in the work and change the order of images, insert a sequence or a single frame. Digital editing works with what Milan Kundera called the small infinity between 0 and 1, adding density without necessarily increasing the work's length. While analog editing temporalizes, digital editing spatializes.[6] Numerous recent works exploit the nonlinear medium's ability to extend into space rather than time. A video by Kika Thorne, *Work* (2000), exploits nonlinear editing to "tell" the story of an artist who gets fired from her crummy day job but finds fulfillment in other kinds of work. Each scene is shot from slightly different angles, sometimes with a time shift, and presented on adjacent screens, so that rather than following a story from a particular point of view we experience a series of slightly disjunct affective moments. Thorne uses the open form to multiply the intensity of each moment rather than extend it into narrative. *ASCII Alphabet* by Dorion Berg (1999) pushes the database logic of representation to an extreme. Berg creates a series of paired binaries drawn from the quaint images of a 1960s children's encyclopedia and assigns each a corresponding sound, along the lines of cow and "moo," ambulance and "Augh!"[7] These are strung together according to the encoding rules of ASCII code, engendering a digital universe in which a highly circumscribed image-sound vocabulary comes to stand for everything it is possible to represent, in a logic both wacky and inexorable.

Given the extreme manipulability of digital video, Manovich suggests we understand the history of art as a long history of painting, in which

Still from *Work* (1999), by Kika Thorne. Courtesy of V Tape.
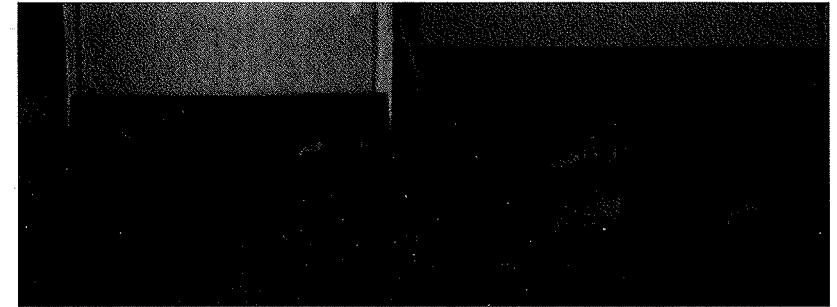
Still from *Work*. Courtesy of V Tape.

photography and live-action movies constitute a brief indexical blip. "In retrospect, we can see that twentieth-century cinema's regime of visual realism, the result of automatically recording visual reality, was only an exception, an isolated accident in the history of visual representation, which has always involved, and now again involves, the manual construction of images. Cinema becomes a particular branch of painting—painting in time. No longer a kino-eye, but a kino-brush."[8] Manovich's provocative assertion emphasizes the voluntarism of creativity in a painterly medium. In the database medium, the image's origin is less important than the decision to actualize the virtual image in a particular way.

Because it is a database manipulation, digital video erases the difference between editing, animation, and special effects. Most spectacular among these is the digital animation known as morphing, which is achieved by mapping one set of information onto another. If you map points on an image of a tomato to points on an image of a child's face, for example, you get an animation of a tomato metamorphosing into a child. People often find morphing *unheimlich* or uncanny precisely because it transcends our body's selfsameness.[9] Sobchack notes that while the long take so beloved of André Bazin corresponds to the body's duration in time, "morphing and the morph deflate in humanly meaningful temporal value proportionate to their inflated spatial display of material transformation as both seamlessly reversible and effortless."[10]

The morph effaces mortality and replaces it with the endless recuperability of the database. Reflecting the ultimately rational, or at least knowable, quality of the database, the most interesting of video artworks that use morphing draw attention to the rhetorical quality of the morph, the visual *argument* it makes by suggesting that one object can be transformed into another. Commercial examples of morph-arguments abound,

from Michael Jackson's *Black or White* music video (1991) to the transforming bodies in *The Cell* (Tarsem Singh, 2000). Art examples include Steina's *A So Desu Ka* (1995), Daniel Reeves's *Obsessive Becoming* (1997), Philip Mallory Jones's *First World Order* (1998), which "argues" that African diaspora cultures are fundamentally connected, and Robert Arnold's *Morphology of Desire* (1998), which "argues" that all Harlequin romances, if we can judge them by their covers, are iterations of an absurdly similar theme. A virtuosic work of digital editing, *Locked Groove* by Caspar Stracke (1999) cycles through a series of shots of people doing repetitive manual labor. Stracke digitally compresses each shot temporally and accelerates the sequence, until all the workers' actions morph together into one grotesque movement, lurching into the simulacral realm of the morph. Stracke too is using digitization rhetorically, to compare rationalized labor to the rationality of the database: *Locked Groove* suggests that not only the medium but human behavior itself is becoming more digital.[11]

The uncanniness of morphing speaks to a fear of unnatural, transformable bodies. If digital video can be thought to have a body, it is a strikingly queer body, in the sense that queer theory uncouples the living body from any essence of gender, sexuality, or other way to be grounded in the ontology of sexual difference. Untroubled about its naturalness (is it indexical or simulacral?), digital video refuses the doomed search for origins. Like the choice to render the database of information audiovisually, digital video reflects a voluntaristic choice to have *this* kind of body, for now. Rejecting the linear structure that leads inexorably to an end, digital video celebrates its brief desiring connections in the here and now of each surprising edit. Flaunting the images and sounds plundered from commercial media's closets, digital video recombines them with campy panache, in a sort of digital drag. What digital video loses in indexicality, it gains in flexibility.

Analog Nostalgia

Paradoxically, the age of so-called virtual media has hastened the desire for indexicality. In popular culture, now that so many spectacular images are known to be computer simulations, television viewers are tuning in to "reality" programming, and Internet surfers are fixating on live webcam transmissions in a hunt for unmediated reality. Among digital videomakers, one of the manifestations of the desire for indexicality is what I call analog nostalgia, a restrospective fondness for the "problems" of decay and generational loss that analog video posed. In the high-fidelity
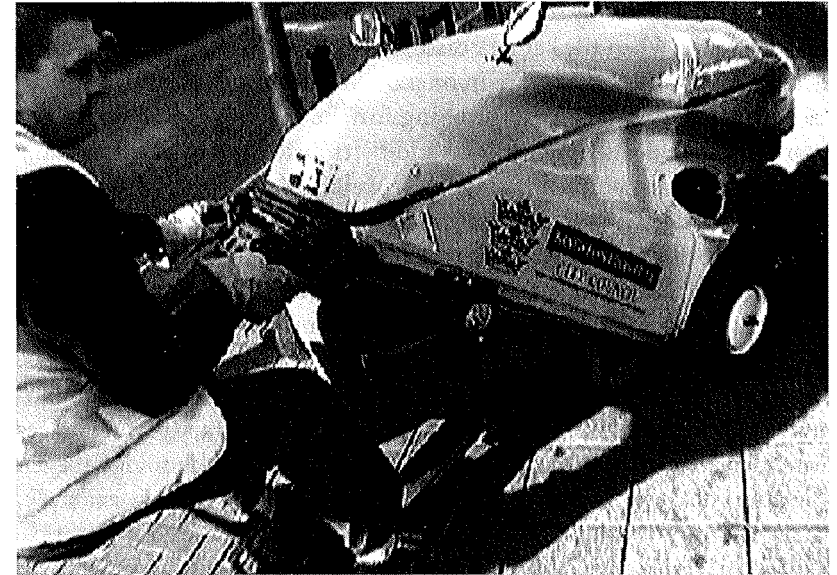
Still from *Locked Groove* (1999), by Caspar Stracke. Courtesy of the artist.

medium of digital video, where each generation can be as imperviously perfect as the one before, artists are importing images of electronic dropout and decay, "TV snow" and the random colors of unrecorded tape, in a sort of longing for analog physicality. Interestingly, analog nostalgia seems especially prevalent among works by students who started learning video production when it was fully digital.

Related to analog nostalgia is the brave attempt to re-create immediate experience in an age when most experience is rendered as information. There is a new performativity in digital video, a yearning to have perceptions that nobody has perceived before. My favorite example of the longing for Firstness in an age of Thirdness is Steve Reinke's *Afternoon, March 22, 1999. Afternoon* is a virtuoso performance for Reinke's brand-new digital camera, which he manages to tuck in his armpit so that he can speak into the microphone while testing the properties of the lens. Edited in camera, it pays no mind to the medium's postproduction potential. In one sequence, Reinke holds up a slide of a painting to the camera and asserts that the test of a good artwork is whether it's more interesting to look at it or to look out the window. Doing the latter, from the window of his high-rise apartment, reveals a bleak view of more high-rises flanked by asphalt and a couple of bare trees. Sharing this view, we perceive the simulacral quality of much of everyday life and understand

that Reinke is patiently searching for a flash of unmediated, quietly exist-ing life. Later, when the camera discovers a robust ball of dust under the artist's desk, we feel that we're in on a discovery as important as the heli-cal structure of DNA: Life! Longing for the material in a virtualized world, Reinke finds it by waiting, and by transferring to us viewers his own embodied relationship to the new camera.

Another sign of the search for analog life in digital video is the general resurgence of the performance video form popular in the early 1970s among artists such as Hannah Wilke, Vito Acconci, Lisa Steele, Joan Jonas, and John Watt. Now that the medium is so easily manipulated, performance, with its dependence on the fidelity of the video witness, celebrates the performer's body not because of the physicality of the medi-um, but despite its lack of physicality. Many contemporary performances for video are unedited and single shot, mimicking the technology-driven duration of early '70s tapes. While Reinke's tape is a bravura example, many recent works look like they could have been produced in 1972, ex-cept for that giveaway digital shimmer: single-shot sight gags for camera; intimate, improvised performances; endurance feats that require indexi-cal witness; feedback experiments that take advantage of machine ran-domness. As in the earlier generation, many of these performers are

Still from *Afternoon, March 22, 1999*, by Steve Reinke. Courtesy of V Tape.

women: they include Alex Bag, Pipilotti Rist, Ann McGuire, Emily Vey Duke and Cooper Battersby (a man), Cathy Sisler, and Jennifer Reeder. Vey Duke and Battersby's stunning video *Rapt and Happy* (1998) tests the highly mediated and spatialized digital form against the bodily media-tion of performance. The artists' bodies are ever-present: Vey Duke sings her voice-overs; they black out their teeth with licorice as she relates the thrilling experience of punching her boyfriend in the face in a restaurant; they illustrate the complexities of a ménage à trois with simple line draw-ings. After so much photographic mediation, the indexicality of a line to the hand that drew it embodies the artists' presence in a refreshing and compelling way. The young artist Benny Nemerofsky Ramsay combines the complexity of the digital image with the immediacy of performance in his karaoke-style videos *Je Changerais d'Avis* (2000) and *Forever Young* (2001). In each, the frame is divided into multiple sites, each of which in-terprets the tender words of the pop songs: a sign-language interpreter, translations running along the bottom of the screen, and sublime found footage of data streams and satellite weather reports. They compete for our attention, but the winner tends to be the small frame of Ramsay, singing sincerely and well. In *Forever Young*, trembling slightly in a se-quined halter top, he cries real tears as the song ends: "Do you really want

Still from *Afternoon, March 22, 1999*. Courtesy of V Tape.

Still from *Rapt and Happy* (1998), by Emily Vey Duke and Cooper Battersby. Courtesy of V Tape.

to live forever? Forever young." The bland popular-culture images, digitally recombined, generate a smooth surface, a tabula rasa, on which Ramsay writes with his own body and voice the promise of the new.

A disturbing work that combines the shock of indexicality with the deliberate liveness of performance is Miranda July's *Nest of Tens* (1999). This complex work documents performances in several registers of self-awareness, including those of July herself. But July draws on the discomfort of watching performers who presumably aren't in control of their representations: children, and a mentally retarded man who holds a press conference on his book listing common fears. It's similarly disturbing to watch the performances of children in this tape, for even if they are following direction, their innocence gives their actions a performative quality, as though they become what they enact in a way adult actors cannot. In one sequence, a young boy places a female infant on the carpet and proceeds with a sort of surgical ritual, outlining her naked body with cotton balls, carefully soaping, cleaning, and fanning her (she cries nonetheless); he spits a gum bubble on her belly. Then the boy draws a sequence of 0s and 1s on paper, which he proceeds to *play* as though it were a remote control connected to the baby. Like Stracke's *Locked Groove*, this sequence literalizes the way people embody digitality in the world. But its documentary quality emphasizes the irrevocability and shared responsibility of performance: the baby is truly vulnerable and her cries are real.

Digital Mortality

Digital media are as fragile as analog, if not more. Digital video's vulnerability is most evident in low and obsolete technologies. Consider Quicktime: a low-res digital video recording suitable for real-time transmission. Sobchack notes that Quicktime marks a specific point in the development of the medium, already obsolete and all the more important.[12] Winston Xin's gritty little video *Boulevard of Broken Sync* (1995), in the obsolete medium of Quicktime 1.0, reminds us how ephemeral digital media are. It's a letter to an ex-boyfriend who insisted that Xin not show his picture in his work, and Xin complies by exploiting the pixellation and random effects of early Quicktime. While Xin's voice-over tells how his ex requested the artist not use his image, we see the silhouette of a man, evidently the boyfriend, infilled with the moiré patterns symptomatic of the low-res medium. In its decay and tendency to overlay images with the random interjections of the medium, *Boulevard of Broken Sync* is more like a memory of a love affair than a document of one.

While analog video suffers from bodily decay as the tape demagnetizes, digital video decays through "bit-rot," William Gibson's evocative term for lossy compression, information loss that renders images in increasingly large and "forgetful" pixels.[13] Crime TV shows use digital forgetting to blur faces into pixels. Artworks use it to metaphorize memory
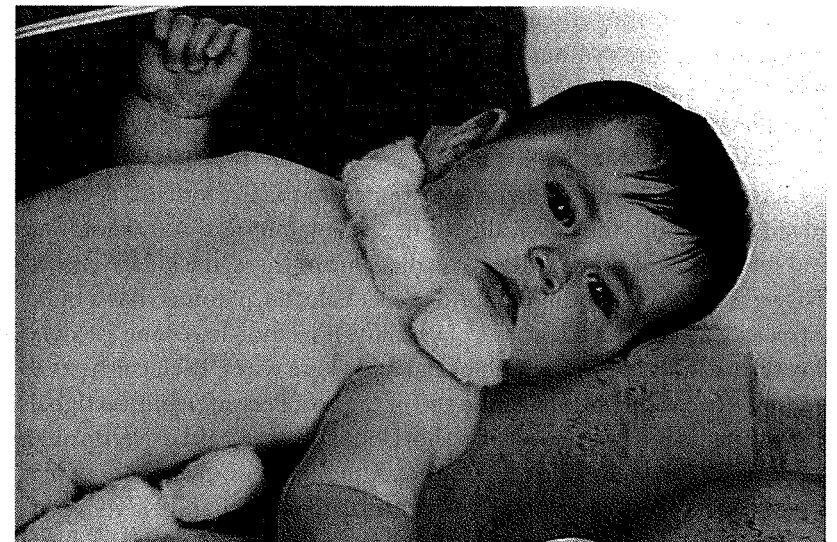
Still from *Nest of Tens* (1999), by Miranda July. Courtesy of the artist.

and information loss. In *Déconstruction* by Rémi Lacoste (1997), a shot of a building being demolished is rendered virtual by digital editing: the building reassembles, deconstructs again, and then deconstructs more terribly due to image compression, a kind of digital Alzheimer's where the image is saved as just a few bytes of memory. Anthony Discenza's *The Vision Engine* (1999), *Phosphorescence* (1999), and other works exploit the ability of pixellation to render the familiar strange. *Phosphorescence* begins with Rothkoesque images, gorgeous scumbled forms in deep red, lemon yellow, and blue-gray. Stripped of the digital algorithm that transformed them, the source images turn out to be banal evening news broadcasts. Plundered images are manipulated so as to give us the immediacy of presymbolic perception: again, wresting Firstness from the jaws of Thirdness.

Following the innovations of electronic musicians, video artists now provoke the digital image to stutter and break down in ways only a digital image can. Many works mimic digital errors like the skipping of a CD, and are structured around the resulting rhythm. Also, in what Tess Takahashi calls "hand-processed" digital video, artists are intentionally messing with the hardware: turning the computer on and off, or plugging the "audio out" into the "video in," liberating the electrons to create random effects.[14]

The recent phenomenon of the live video performance also meditates on the ephemerality of digital video. Live video artists use digital cameras, pro-sumer mixing boards, homemade hardware-software platforms, and sometimes their own bodies to produce one-time audiovisual events. Images are synthesized live or translated in real time into other sorts of information, such as sound and movement. Live video celebrates the ephemeral body of digital cinema, for it can only exist live; live-to-tape video documents are just that.[15]

Scrappy analog-digital hybrids are emerging as live video artists take advantage of both the physicality of the analog interface and the storage and retrieval capacities of digital media. One of these, the video jukebox *Triggers* (2000) by Benton Bainbridge, aka Valued Cu$tomer, has a bulky interface that stresses the work's physicality. It's a four-foot-long Plexiglas box threaded inside with a web of red and white wires. Each connects to one of sixty backlit buttons at one end of the box. Pressing a button signals a computer to retrieve one of sixty short videos from a hard drive, through software for DJs called VidVox Prophet. Although it would be easy to play a new video each time somebody presses a button, Bainbridge reprogrammed the software to wait until the previous video is finished, like a jukebox and unlike the mindless "interactivity" of many video games.

The videos themselves are compulsively enchanting exercises in hardcore analog synthesis. Their style varies tremendously but each instills synesthesia, as the image is generated from the artist's electronic music. The video's scan rate can vary with the pitch of the sound; the CRT can act as an oscilloscope; or a video switcher can generate effects in response to loudness, such as strobe, color, negative, and feedback. Bainbridge practices the image synthesis, performs it live, and shoots the result off an oscilloscope. This may sound tech-driven, but each video has a distinct character. *Saw Zall*, for example, dedicated to Naval Cassidy (aka Jon Giles, Bainbridge's live-video performance collaborator), generates from the twitchy, flatulent music a hairy oscilloscope thread that tangles back on itself, together with frantically pulsing negative shapes; yet all in understated tones of gray and sepia. It's an affectionate summary of Naval's personality.

Digital culture is a narrative theme in numerous recent videos as well as commercial films. Fewer are the works that meditate in their *form* on the ways computer-mediated life alters human experience, such as those I've discussed here. Digital video reflects both on the database as the outer boundary of knowledge and on the mortal life, the human and machine error, that cannot be contained in a database. Flaunting artifice, it paradoxically allows artists to restore authenticity and embodiment to their performances. Yet digital video's virtual body becomes physical as soon as one pays attention to the hardware-software platform on which it was built. At this level, the faulty interface corresponds to human efforts to make do with imperfect resources. Machine error creates new opportunities for randomness, which is the source of life. Digital video knows its body is not natural but is nonetheless mortal. It perceives for us humans the uncanniness with which it is possible to slip out of life and into virtuality.

touch

Sensuous
Theory
and
Multisensory
Media

Laura U. Marks

Contents